Board of Education Agenda Item

Item: D. **Date:** October 22, 2009

Topic: Final Review of the Standards of Quality

Presenter: Ms. Anne D. Wescott, Assistant Superintendent for Policy and Communications

Telephone Number: (804) 225-2403 **E-Mail Address:** Anne.Wescott@doe.virginia.gov

Origin:

____ Topic presented for information only (no board action required)

_X_ Board review required by
- _X_ State or federal law or regulation
- ____ Board of Education regulation
- ____ Other: _____

_X_ Action requested at this meeting ___ Action requested at future meeting: _____

Previous Review/Action:

___ No previous board review/action

_X_ Previous review/action

date September 17, 2009

action First review of the Standards of Quality

Background Information: Article VIII, § 2 of the *Constitution of Virginia* requires the Board of Education to determine and prescribe Standards of Quality for the public schools in Virginia. The *Constitution* says:

> "Standards of quality for the several school divisions shall be determined and prescribed from time to time by the Board of Education, subject to revision only by the General Assembly. The General Assembly shall determine the manner in which funds are to be provided for the cost of maintaining an educational program meeting the prescribed standards of quality, and shall provide for the apportionment of the cost of such program between the Commonwealth and the local units of government comprising such school divisions. Each unit of local government shall provide its portion of such cost by local taxes or from other available funds."

The *Code of Virginia* requires the Board of Education to review the Standards of Quality every two years. Section 22.1-18.01 of the *Code* says, in part:

> "To ensure the integrity of the standards of quality, the Board of Education shall, in even-numbered years, exercise its constitutional authority to determine and prescribe the standards, subject to revision only by the General Assembly, by reviewing the standards and either (i) proposing amendments to the standards or (ii) making a determination that no changes are necessary…."

The *Code* also requires that the Board's annual report to the Governor and General Assembly include any recommendations for revisions to the Standards of Quality. Section 22.1-18 of the *Code* says, in part:

> "…the Board of Education shall submit to the Governor and the General Assembly a report on the condition and needs of public education in the Commonwealth and shall identify any school divisions and the specific schools therein which have failed to establish and maintain schools meeting the existing prescribed standards of quality. Such standards of quality shall be subject to revision only by the General Assembly, pursuant to Article VIII, Section 2 of the Constitution of Virginia. Such report shall include a complete listing of the current standards of quality for the Commonwealth's public schools, together with a justification for each particular standard, how long each such standard has been in its current form, and whether the Board recommends any change or addition to the standards of quality."

The 2009 General Assembly added language to Item 140 of the Appropriation Act that says:

> "The Board of Education shall review the current Standards of Quality to evaluate the appropriateness of the existing staffing standards for instructional positions and the appropriateness of establishing ratio standards for support positions, with the objective of maximizing resources devoted to the instructional program. The findings of this review, its associated costs, and its final recommendations for rebenchmarking shall be submitted to the Governor, the Chairmen of House Appropriations and Senate Finance Committees and the Joint Subcommittee on Elementary and Secondary Education Funding established pursuant to Item 1, paragraph H. of this Act no later than November 1, 2009."

The Board of Education approved the work plan for this review on April 30. The work plan includes:

- Participation and involvement of education entities and the public;
- Collection and analysis of data provided by school divisions;
- Research and analysis by an outside independent consultant;
- Examination of all facets of the Standards of Quality (SOQ) staffing standards;
- Identification of best practices; and
- Formulation of recommendations.

The review was conducted by the Board's Standing Committee of the Standards of Quality, chaired by

Mrs. Saslaw. The committee met on May 27, June 24, July 22, September 16, and October 21. During these meetings, the committee heard from a number of educational organizations, school divisions, parents, teachers, students, and other members of the public.

The first public comment period was May 1 through July 31. The Board received 31 comments at the SOQ Committee meetings; a petition from JustChildren in partnership with the Alliance for Virginia's Students with 1,130 signatures and comments; five comments at Board of Education meetings; and 14 comments via mail or e-mail from school divisions; organizations, and individuals.

The second public comment period was September 15 through October 2. Four public hearings were held in Chesapeake, Fairfax County, Pulaski County, and Richmond on September 30. There were 92 comments from the four public hearings and 206 comments via mail or e-mail from school divisions, organizations, and individuals. In addition, the Alliance for Virginia's Children presented the petition noted above with an additional 215 signatures.

A summary of the public comments may be found in the attached report.

The SOQ Committee received an interim analysis from Augenblick, Palaich, and Associates, Inc. on staffing standards on July 22, and a final analysis on September 16. A copy of the final analysis may be found in the attached report.

The committee also heard a presentation on rebenchmarking costs estimated for 2010-2012, and received the results of a survey of school divisions at the July 22nd meeting. This information may also be found in the attached report.

At the September 16 SOQ meeting, the Board considered three documents: *Draft Recommended Policy Directions and Options for Revisions to the Standards of Quality*, a chart detailing the policy directions and options for revisions of the SOQ, and draft legislation to amend the Standards of Quality.

At the Board meeting on September 17, the Board approved two additions to the *Draft Recommended Policy Directions and Options for Revisions to the Standards of Quality:*

- Support the appropriateness of establishing ratio standards for individual categories of "support service" positions as is the current practice used for instructional personnel.
- Advocate against permanent structural changes to the Standards of Quality that result in decreased funding for K-12 public education.

Summary of Major Elements: The draft Standards of Quality report to the General Assembly is attached. It includes proposed policy directions, options for revisions to the Standards of Quality, and issues for further study, which are as follows:

Policy Directions

- Enhance the Standards of Quality so that the Commonwealth's basic foundation program for K-12 public education reflects a comprehensive educational program of the highest quality.
- Provide clarity and greater transparency in SOQ funding with the goal of maintaining the Commonwealth's commitment to public education funding at the state and local levels and encouraging a continued emphasis on school-based instructional services.
- Provide greater flexibility to school divisions in using noninstructional personnel funding for instructional support services.
- Support the appropriateness of establishing ratio standards for individual categories of "support service" positions as is the current practice used for instructional personnel.
- Advocate against permanent structural changes to the Standards of Quality that result in decreased funding for K-12 public education.
- Begin building a more comprehensive basic foundation program by including in the SOQ gifted, special education, and career and technical staffing ratios and certain incentive programs that have become core components of K-12 educational programs statewide and currently funded in the appropriations act.
- Set priorities for the Board's unfunded SOQ recommendations from previous years so that these instructional staffing standards can be fully implemented in future years.
- Begin to address the Board's school leadership priorities of requiring a principal in every school and increasing the number of assistant principals in schools with the greatest need.
- Mitigate the perverse incentive of reducing a school division's special education funding when it mainstreams students with disabilities into general education classrooms or uses Response to Intervention (RtI) and/or other instructional supports to reduce the number of students identified as needing special education services.
- Provide additional policy guidance and direction to school divisions offering alternative or nontraditional educational programs, such as the Individual Student Alternative Education Plan (ISAEP).

SOQ Language Revisions to Address Policy Directions

- Codify the Board of Education's recommendations that were included in the 2009 Appropriation Act providing flexibility in the use of existing funds for hiring reading specialists, mathematics specialists, data coordinators, and instruction of English language learners.
- Codify the provisions of the Early Intervention Reading Initiative and the Algebra Readiness program by including them in the Standards of Quality and requiring all school divisions to provide these interventions with funding currently appropriated for these incentive programs.
- Codify the appropriation act provision that the Standards of Quality includes a minimum of 58 licensed, full-time instructional positions per 1,000 students, including instructional positions for special education, gifted education, and career and technical education.
- Codify the staffing standards for special education (currently in regulations), gifted education (currently in the appropriation act), and career and technical education (currently in regulations).

- Provide school divisions the flexibility to deploy assistant principals to the schools with the greatest needs, so long as they employ a sufficient number of assistant principals divisionwide to meet the total number required in the current SOQ staffing requirement.
- Define the categories of personnel who make up "support services," specify how those positions are funded, and require transparency in the use of funds by mandating divisions publicly report the state and local amounts budgeted and expended for each category.
- Permit school divisions to use funds for support services to provide additional instructional services and include instructional services as a separate category to be reported publicly.

Issues for Further Study

As resources become available, conduct a comprehensive study of the following complex funding issues and report the findings to the Governor and General Assembly for consideration as part of the 2010 review of the SOQ.

- The feasibility of converting the prevailing costs for each major category of the "support services" positions into ratios (for example, based on positions per 1,000 students), and including ratios for some or all of the categories in the appropriation act.
- The feasibility of establishing alternative staffing approaches to provide school divisions with additional instructional resources to address identified needs. This could include ratios based on positions per 1,000 students for assistant principals, school counselors, and library-media specialists that would reduce funding "cliffs." It could also include assigning weights for students who may be at-risk and require additional support, including special education services, services to English language learners, and services to disadvantaged students.
- The feasibility of creating a special education incentive fund or other funding methodologies to mitigate the perverse incentive of reducing a school division's special education funding when it mainstreams students with disabilities into general education classrooms or uses Response to Intervention (RtI) and/or other instructional supports to reduce the number of students identified as needing special education services.
- The feasibility of updating technology staffing ratios, taking into consideration the increased role of technology in instruction, assessment, and operations since staffing standards were first established in the SOQ.
- The feasibility of updating career and technical education staffing ratios, taking into consideration the (i.) implementation of new curricular pathways that require high-tech equipment and specialized instruction and (ii.) anticipated increased enrollments in CTE courses given the newly created standard technical and advanced technical diplomas.

One change is proposed to the September 17 draft amendments to Standard 2 of the Standards of Quality (§ 22.1-253.13:2 of the *Code of Virginia*): Clarifying language would be added to the provisions related to special education to define Levels I and Level II services. The definitions are taken from the definitions in the Board's *Regulations Governing Special Education Programs for Children with Disabilities in Virginia* (8 VAC 20-81-10), effective July 7, 2009.

> Each local school board shall employ licensed, full-time equivalent positions in necessary to comply with the following requirements for special education services for students *requiring either Level I or Level II services. Level I services, means the provision of special education to*

children with disabilities for less than 50 percent of their instructional school day (excluding intermission for meals). Level II services, means the provision of special education and related services to children with disabilities for 50 percent or more of the instructional school day (excluding intermission for meals). The time that a child receives special education services is calculated on the basis of special education services described in the individualized education program, rather than the location of services.

The proposed amendments to the Standards of Quality may be found in Attachment 1. The draft Standards of Quality report may be found in Attachment 2.

Superintendent's Recommendation: The Superintendent of Public Instruction recommends that the Board approve the attached report on the Standards of Quality, the proposed policy directions, and the recommended amendments to the Standards of Quality.

Impact on Resources: It is not expected that this proposal will have a significant impact on state and local resources.

Timetable for Further Review/Action: Following the Board's adoption, the report will be transmitted to the Governor and the General Assembly, as required by Item 140.C.5.k.3) of Chapter 781, 2009 Acts of Assembly.

ATTACHMENT 1

Proposed Amendments to the Standards of Quality

Codify the Board of Education's recommendations that were included in the 2009 Appropriation Act providing flexibility in the use of existing funds for hiring reading specialists, mathematics specialists, data coordinators, and instruction of English language learners.

Reading Specialists: *To provide flexibility in the provision of reading intervention services, school divisions may use the state Early Reading Intervention initiative funding and the required local matching funds, pursuant to § 22.1-253.13, paragraph D, 12, to employ reading specialists to provide the required reading intervention services. School divisions using the Early Reading Intervention Initiative funds in this manner shall only employ instructional personnel licensed by the Board of Education.*

Mathematics Specialists: *To provide flexibility in the provision of mathematics intervention services, school divisions may use the state Standards of Learning Algebra Readiness initiative funding and the required local matching funds, pursuant to § 22.1-253.13, paragraph D, 12, to employ mathematics teacher specialists to provide the required mathematics intervention services. School divisions using the Standards of Learning Algebra Readiness initiative funding in this manner shall only employ instructional personnel licensed by the Board of Education.*

Data Coordinators: *To provide flexibility, school divisions may use the state and local funds for instructional technology resource teachers to employ a data coordinator position, an instructional technology resource teacher position, or a data coordinator/instructional resource teacher blended position. The data coordinator position is intended to serve as a resource to principals and classroom teachers in the area of data analysis and interpretation for instructional and school improvement purposes, as well as for overall data management and administration of state assessments. School divisions using these Standards of Quality funds in this manner shall only employ instructional personnel licensed by the Board of Education.*

Instruction of English Language Learners: *To provide flexibility in the instruction of English Language Learners who have limited English proficiency and who are at risk of not meeting state accountability standards, school divisions may use state and local funds from the Standards of Quality Prevention, Intervention, and Remediation account to employ additional English Language Learner teachers to provide instruction to identified limited English proficient students Using these funds in this manner is intended to supplement the instructional services provided through the Standards of Quality staffing standard of 17 instructional positions per 1,000 limited English proficiency students. School divisions using the Standards of Quality Prevention, Intervention, and Remediation funds in this manner shall only employ instructional personnel licensed by the Board of Education.*

Codify the provisions of the Early Intervention Reading Initiative and the Algebra Readiness program by including them in the Standards of Quality and requiring all school divisions to provide these interventions with funding currently appropriated for these incentive programs.

Early Reading: *Local school divisions shall provide early reading intervention services to students in grades kindergarten through 3 who demonstrate deficiencies based on their individual performance on any diagnostic test which has been approved by the Department of Education. School divisions shall report the results of the diagnostic tests to the Department of Education on an annual basis at a time to be determined by the Superintendent of Public Instruction. Each student who receives an intervention will be assessed again at the end of that school year. Such intervention programs, at the discretion of the local school division, may include, but not be limited to, the use of: special reading teachers; trained aides; volunteer tutors under the supervision of a certified teacher; computer-based reading tutorial programs; aides to instruct in-class groups while the teacher provides direct instruction to the students who need extra assistance; or extended instructional time in the school day or year for these students.*

Algebra Readiness: *Local school divisions shall also provide mathematics intervention services to students in grades 6, 7, 8 and 9 who are at risk of failing the Algebra I end-of-course test, as demonstrated by their individual performance on any diagnostic test which has been approved by the Department of Education. School divisions shall report the results of the diagnostic tests to the Department of Education on an annual basis at a time to be determined by the Superintendent of Public Instruction. Each student who receives an intervention will be assessed again at the end of that school year.*

Codify the appropriation act provision that the Standards of Quality would include a minimum of 58 licensed, full-time instructional positions per 1,000 students, including instructional positions for special education, gifted education, and career and technical education.

Each local school board shall employ with state and local basic *aid*, special education, gifted, and career and technical education funds a minimum ~~*number*~~ of *58* licensed, full-time equivalent instructional personnel for each 1,000 students in average daily membership (ADM) as set forth in the appropriation act.

Codify the staffing standards for special education (currently in regulations), gifted education (currently in the appropriation act), and career and technical education (currently in regulations).

Special Education: *Each local school board shall employ licensed, full-time equivalent positions in necessary to comply with the following requirements for special education services* **[*for students requiring either Level I or Level II services. Level I services, means the provision of special education to children with disabilities for less than 50 percent of their instructional school day (excluding intermission for meals). Level II services, means the provision of special education and related services to children with disabilities for 50 percent or more of the instructional school day (excluding intermission for meals). The time that a child receives special education services is calculated on the basis of special education services described in the individualized education program, rather than the location of services.*]**

Local school division caseload maximums as funded by the Virginia Appropriation Act

Disability Category	*Level II*		*Level I*
	With Paraprofessional 100% of the time	*Without Paraprofessional 100% of the Time*	
Autism	*8*	*6*	*24*
Deaf-blindness	*8*	*6*	
Developmental Delay: age 5-6	*10*	*8*	
Developmental Delay: age 2-5	*8 Center-based 10 Combined*	*12 Home-based and/or Itinerant*	
Emotional Disability	*10*	*8*	*24*
Hearing Impairment/Deaf	*10*	*8*	*24*
Learning Disability	*10*	*8*	*24*
Intellectual Disability	*10*	*8*	*24*
Multiple Disabilities	*8*	*6*	
Orthopedic Impairment	*10*	*8*	*24*
Other Health Impaired	*10*	*8*	*24*
Speech or Language Impairment	*NA*	*NA*	*68 (Itinerant)*
Traumatic Brain Injury	*May be placed in any program, according to the IEP.*		
Combined group of students needing Level I services with students needing Level II services	*20 Points (see values for students receiving Level I services when combined with students receiving Level II services)*		

Values for students receiving Level I services when combined with students receiving Level II services

Disability Category	*Level II Values*		*Level I*
	With Paraprofessional 100% of the time	*Without Paraprofessional 100% of the time*	*Values*
Autism	*2.5*	*3.3*	*1*
Deaf-blindness	*2.5*	*3.3*	*1*
Developmental Delay: age 5-6	*2.0*	*2.5*	*1*
Emotional Disability	*2.0*	*2.5*	*1*
Hearing Impairment/Deaf	*2.0*	*2.5*	*1*
Learning Disability	*2.0*	*2.5*	*1*
Intellectual Disability	*2.0*	*2.5*	*1*
Multiple Disabilities	*2.5*	*3.3*	*1*
Orthopedic Impairment	*2.0*	*2.5*	*1*
Other Health Impairment	*2.0*	*2.5*	*1*
Traumatic Brain Injury	*2.0*	*2.5*	*1*

Gifted Education: *Local school boards shall employ one licensed, full-time equivalent position per 1,000 students in grades kindergarten through 12 for gifted education services.*

Career and Technical Education: *Each local school board shall employ licensed, full-time equivalent positions in career and technical education necessary to comply with the following requirements:*

a. *Career and technical education laboratory classes that use equipment that has been identified by the U.S. Department of Labor for hazardous occupations shall be limited to a maximum of 20 students per laboratory.*

b. *Career and technical education courses approved for students who are disadvantaged shall be limited to an average of 15 students per instructor per class period with no class being more than 18.*

c. *Career and technical education courses approved for students with disabilities shall be limited to an average of 10 students per instructor per class period with no class being more than 12 or up to an average of 12 students per class period with no class being more than 15 where an instructional aide is provided.*

d. *Enrollments in career and technical education courses shall not exceed the number of individual work stations.*

e. *Career and technical education programs using the cooperative education method of instruction shall be limited to an average of 20 students per instructor per class period with no class being more than 24 where the cooperative education method of instruction is required and have a class period assigned to the instructor for on-the-job coordination for each 20 students participating in on-the-job training.*

Provide school divisions the flexibility to deploy assistant principals to the schools with the greatest needs, so long as they employ a sufficient number of assistant principals divisionwide to meet the total number required in the current SOQ staffing requirement.

School divisions that employ a sufficient number of assistant principals to meet these staffing requirements may assign assistant principals to schools within the division according to the area of greatest need, regardless of whether such schools are elementary, middle, or secondary.

Define the categories of personnel who make up "support services," specify how those positions are funded, and require transparency in the use of funds by mandating divisions publicly report the state and local amounts budgeted and expended for each category.

For the purposes of this title, unless the context otherwise requires, "support services *positions*" shall include ~~*services provided by the school board members; the superintendent; assistant superintendents; student services (including guidance counselors, social workers, and homebound, improvement, principal's office, and library-media positions); attendance and health positions; administrative, technical, and clerical positions; operation and maintenance positions; educational technology positions; school nurses; and pupil transportation positions.*~~ *the following:*

1. *Executive policy and leadership positions, including school board members, superintendent, and assistant superintendents;*

2. *Fiscal and human resource positions, including fiscal and audit operations, human resources, and procurement;*

3. *Student support positions, which include:*

    a. *Social workers and social work administrative positions;*

    b. *Guidance administrative positions not included in paragraph H.4, ,*

    c. *Homebound administrative positions supporting instruction;*

    d. *Attendance support positions related to truancy and drop-out prevention;*

    e. *Health and behavioral positions, including school nurses and school psychologists;*

4. *Instructional personnel support, including professional development positions and library and media positions not included in H.3;*

5. *Technology professional positions not included in paragraph J;*

6. *Operation and maintenance positions, including facilities; pupil transportation positions; operation, and maintenance professional and service positions; security services, trades, and laborer positions;*

7. *Technical and clerical positions, including fiscal and human resource technical/clerical, student support technical/clerical, instructional personnel support technical/clerical, operation and maintenance technical/clerical, administration technical/clerical, and technology technical/clerical positions;*

8. *School-based clerical personnel in elementary schools, part-time to 299 students, one full-time at 300 students; clerical personnel in middle schools, one full-time and one additional full-time for each 600 students beyond 200 students and one full-time for the library at 750 students; clerical personnel in high schools, one full-time and one additional full-time for each 600 students beyond 200 students and one full-time for the library at 750 students.*

Pursuant to the appropriation act, support services shall be funded from basic school aid on the basis of prevailing statewide costs *unless the Standards of Quality specify a staffing standard.*

Permit school divisions to use funds for support services to provide additional instructional services and include instructional services as a separate category to be reported publicly.

School divisions may use the state and local funds for support services to provide additional instructional services.

Local school divisions shall report publicly the state and local amounts budgeted and expended for each category of support services listed above. Local school divisions shall also report publicly the amounts they received for support services that were used to provide additional instructional services.

VIRGINIA BOARD OF EDUCATION

Report

VIRGINIA BOARD OF EDUCATION: REVIEW OF THE CURRENT STANDARDS OF QUALITY

PRESENTED TO

THE HONORABLE TIMOTHY M. KAINE
GOVERNOR OF VIRGINIA
AND
THE VIRGINIA GENERAL ASSEMBLY

October 2009

Table of Contents

Executive Summary 3

Authority for the Report 6

Study Methodology and Implementation 11

Summary of Comments 14

APA Report and Recommendations 18

Survey of Local School Divisions and Recommendations 22

Board Findings……..... 30

Executive Summary

In response to a directive from the 2009 General Assembly, the Virginia Board of Education undertook a comprehensive review of the Standards of Quality (SOQ). In this directive, the Board was asked to "evaluate the appropriateness of the existing staffing standards for instructional positions and the appropriateness of establishing ratio standards for support positions, with the objective of maximizing resources devoted to the instructional program."

This review was undertaken during the April through October time frame. During that time, the following action was taken by the Board:

- Two public comment periods were created:
    1. One in the spring and summer to gather comment for Board consideration and;
    2. One in the fall to solicit additional comment and feedback on SOQ options under Board consideration.

- A consultant was procured to:
    1. Examine SOQ allotted positions in relation to actual school division staffing;
    2. Investigate other states' education funding formulas in comparison to Virginia;
    3. Analyze school division efficiency reviews in relationship to the SOQ; and
    4. Undertake research and a literature review regarding appropriate ratios for both instructional and support positions.

With the information gathered during the first public comment period and with information from the consultant, the Board, in September of 2009, formulated a series of policy directions as well as issues for further study in the following areas:

Policy Directions

- Enhance the Standards of Quality so that the Commonwealth's basic foundation program for K-12 public education reflects a comprehensive educational program of the highest quality.
- Provide clarity and greater transparency in SOQ funding with the goal of maintaining the Commonwealth's commitment to public education funding at the state and local levels and encouraging a continued emphasis on school-based instructional services.
- Provide greater flexibility to school divisions in using noninstructional personnel funding for instructional support services.

- Support the appropriateness of establishing ratio standards for individual categories of "support service" positions as is the current practice used for instructional personnel.
- Advocate against permanent structural changes to the Standards of Quality that result in decreased funding for K-12 public education.
- Begin building a more comprehensive basic foundation program by including in the SOQ gifted, special education, and career and technical staffing ratios and certain incentive programs that have become core components of K-12 educational programs statewide and currently funded in the appropriations act.
- Set priorities for the Board's unfunded SOQ recommendations from previous years so that these instructional staffing standards can be fully implemented in future years.
- Begin to address the Board's school leadership priorities of requiring a principal in every school and increasing the number of assistant principals in schools with the greatest need.
- Mitigate the perverse incentive of reducing a school division's special education funding when it mainstreams students with disabilities into general education classrooms or uses Response to Intervention (RtI) and/or other instructional supports to reduce the number of students identified as needing special education services.
- Provide additional policy guidance and direction to school divisions offering alternative or nontraditional educational programs, such as the Individual Student Alternative Education Plan (ISAEP).

SOQ Language Revisions to Address Policy Directions

- Codify the Board of Education's recommendations that were included in the 2009 Appropriation Act providing flexibility in the use of existing funds for hiring reading specialists, mathematics specialists, data coordinators, and instruction of English language learners.
- Codify the provisions of the Early Intervention Reading Initiative and the Algebra Readiness program by including them in the Standards of Quality and requiring all school divisions to provide these interventions with funding currently appropriated for these incentive programs.
- Codify the appropriation act provision that the Standards of Quality includes a minimum of 58 licensed, full-time instructional positions per 1,000 students, including instructional positions for special education, gifted education, and career and technical education.
- Codify the staffing standards for special education (currently in regulations), gifted education (currently in the Appropriation Act), and career and technical education (currently in regulations).

- Provide school divisions the flexibility to deploy assistant principals to the schools with the greatest needs, so long as they employ a sufficient number of assistant principals divisionwide to meet the total number required in the current SOQ staffing requirement.
- Define the categories of personnel who make up "support services," specify how those positions are funded, and require transparency in the use of funds by mandating divisions publicly report the state and local amounts budgeted and expended for each category.
- Permit school divisions to use funds for support services to provide additional instructional services and include instructional services as a separate category to be reported publicly.

Issues for Further Study

As resources become available, conduct a comprehensive study of the following complex funding issues and report the findings to the Governor and General Assembly for consideration as part of the 2010 review of the SOQ.

- The feasibility of converting the prevailing costs for each major category of the "support services" positions into ratios (for example, based on positions per 1,000 students), and including ratios for some or all of the categories in the appropriation act.
- The feasibility of establishing alternative staffing approaches to provide school divisions with additional instructional resources to address identified needs. This could include ratios based on positions per 1,000 students for assistant principals, school counselors, and library-media specialists that would reduce funding "cliffs." It could also include assigning weights for students who may be at-risk and require additional support, including special education services, services to English language learners, and services to disadvantaged students.
- The feasibility of creating a special education incentive fund or other funding methodologies to mitigate the perverse incentive of reducing a school division's special education funding when it mainstreams students with disabilities into general education classrooms or uses Response to Intervention (RtI) and/or other instructional supports to reduce the number of students identified as needing special education services.
- The feasibility of updating technology staffing ratios, taking into consideration the increased role of technology in instruction, assessment, and operations since staffing standards were first established in the SOQ.
- The feasibility of updating career and technical education staffing ratios, taking into consideration the (i.) implementation of new curricular pathways that require high-tech equipment and specialized instruction and (ii.) anticipated increased enrollments in CTE courses given the newly created standard technical and advanced technical diplomas.

Authority for the Report

The 2009 General Assembly added language to Item 140 of the Appropriation Act requiring the Board of Education to review the Standards of Quality (SOQ) and submit a report by November 1, 2009. Specifically, Item 140.C.5.d.3) states:

> *The Board of Education shall review the current Standards of Quality to evaluate the appropriateness of the existing staffing standards for instructional positions and the appropriateness of establishing ratio standards for support positions, with the objective of maximizing resources devoted to the instructional program. The findings of this review, its associated costs, and its final recommendations for rebenchmarking shall be submitted to the Governor, the Chairmen of House Appropriations and Senate Finance Committees and the Joint Subcommittee on Elementary and Secondary Education Funding established pursuant to Item 1, paragraph H. of this Act no later than November 1, 2009.*

The study group was made up of the Virginia Board of Education's Standing Committee of the Standards of Quality, a committee of the whole:

Mrs. Eleanor Saslaw, Chair, SOQ Committee
Dr. Mark Emblidge, President, Virginia Board of Education
Dr. Ella Ward, Vice-President, Virginia Board of Education
Dr. Thomas Brewster
Mrs. Isis Castro
Mr. David Johnson
Mr. K. Rob Krupicka
Dr. Virginia McLaughlin
Mr. Kelvin Moore

Background

Article VIII, § 2 of the *Constitution of Virginia* requires the Board of Education to determine and prescribe standards of quality for the public schools in Virginia. The *Constitution* states:

> *Standards of quality for the several school divisions shall be determined and prescribed from time to time by the Board of Education, subject to revision only by the General Assembly. The General Assembly shall determine the manner in which funds are to be provided for the cost of maintaining an educational program meeting the prescribed standards of quality….*

On August 7, 1971, the Board of Education adopted the first Standards of Quality. They were revised by the General Assembly in 1972 and adopted as uncodified Acts of Assembly. In 1974, they were revised into eight standards. In 1984, they were codified by the General Assembly, and in 1988 they were arranged into their current format. Significant modifications have been made by the General Assembly since then.

The Board of Education revised its bylaws in October 2001 to require the Board to "determine the need for a review of the SOQ from time to time but no less than once every two years." In 2002, the General Assembly passed several bills regarding the Standards of Quality. Senate Bill 201 added § 22.1-18.01 to the *Code* and required that "To ensure the integrity of the standards of quality, the Board of Education shall, in odd-numbered years, exercise its constitutional authority to determine and prescribe the standards, subject only to revision by the General Assembly, by (i) reviewing the standards and (ii) either proposing amendments to the standards or (iii) making a determination that no changes are necessary." (The review was later changed to even-numbered years by the 2006 General Assembly.) House Bill 884 and Senate Bill 350 amended § 22.1-18 of the *Code* and required that the Board include in its annual report to the General Assembly, "a complete listing of the current standards of quality for the Commonwealth's public schools, together with a justification for each particular standard, how long each such standard has been in current form, and whether the Board recommends any change or addition to the standards of quality." Senate Joint Resolution 120 requests that the Board of Education "revise the Standards of Quality to ensure these statutory practices are realistic vis-à-vis the Commonwealth's current educational needs and practices."

The Standing Committee of the Standards of Quality was created by resolution of the Board of Education in November of 2001 and held its first meeting in January of 2002. The stated purpose of the committee was to determine the information to be reviewed to determine the condition and needs of public education and the process to be used to complete this comprehensive review. The committee created an inclusive public process, encouraged public comment from all education constituents and the public, and

considered policy issues brought before it by superintendents, principals, teachers, local school board members, parents, and county and municipal officials.

As a result of this review, the Board of Education made the following recommendations to revise Standard Two of the Standards of Quality.

Standard Two – Instructional, administrative, and support personnel.

2003 Board Recommendations:

- Require one full-time principal in each elementary school. [The SOQ currently requires a half-time principal for elementary schools with fewer than 300 students.]
- Require one full-time assistant principal for each 400 students in each school. [The SOQ currently requires one half-time assistant principal at an elementary school with between 600 and 899 students and one full-time assistant principal at an elementary school with 900 or more students. The current middle and secondary assistant principal standard in the SOQ is for one full-time assistant principal per 600 students in a school.]
- Fund elementary resource teachers in art, music, and physical education. The proposal would provide three periods per week for art, music, and physical education for students in grades K-5, assuming a 24:1 pupil-teacher ratio. This proposal translates into five instructional positions for every 1,000 students.
- Reduce the secondary school pupil to teacher funding ratio from 25:1 to 21:1 to support scheduled planning time for secondary teachers.
- Reduce the state required speech language pathologist caseload from 68 to 60 students.
- Fund two technology positions at one specialist per 1,000 students in grades K-12 divisionwide, one to provide technology support, and one to serve as a resource teacher for instructional technology.
- Require one full-time instructional position for each 1,000 students to serve as a reading specialist.
- Revise the funding formula for the SOQ prevention, intervention, and remediation program.

The following recommended changes were enacted by the 2004 General Assembly in House Bill 1014 and Senate Bill 479:

- Required local school boards to employ five positions per 1,000 students in grades kindergarten through five to serve as elementary resource teachers in art, music, and physical education. (Effective July 1, 2005.)
- Required local school boards to assign instructional personnel in a manner that produced schoolwide ratios of students in average daily memberships to full-time equivalent teaching positions of 21 to one in middle schools and high schools. School divisions were required to provide all middle and high school teachers

with one planning period per day or the equivalent, unencumbered of any teaching or supervisory duties. (Effective July 1, 2005.)

- Required local school boards to employ two positions per 1,000 students in grades kindergarten through 12, one to provide technology support and one to serve as an instructional technology resource teacher. (Effective July 1, 2005.)
- Established a funding formula for the prevention, intervention, and remediation program proposed by the Board. (Effective July 1, 2004.)

While the General Assembly passed the legislation recommended by the Board, it did not recommend funding for four of the Board's proposals. These included one full-time principal in each elementary school; one full-time assistant principal for each 400 students in each school; reduction of the state-required speech language pathologist caseload from 68 to 60 students; and one full-time reading specialist for each 1,000 students.

The 2004 Appropriation Act passed by the General Assembly changed the required number of full-time equivalent instructional positions for each 1,000 students identified as having limited English proficiency from 10 to 17, but no changes were made in the SOQ to reflect this language.

In 2004, the Board recommended that the language in the SOQ be changed to comport with the Appropriation Act requirement. Specifically, the Board recommended that "state funding, pursuant to the appropriation act, shall be provided to support 17 full-time equivalent instructional positions for each 1,000 students identified as having limited English proficiency." This change was enacted by the 2005 General Assembly through House Bill 1762 and Senate Bill 779. The bills also clarified provisions regarding the five positions per 1,000 students in kindergarten through grade five who serve as elementary resource teachers in art, music, and physical education and the two positions per 1,000 students in grades kindergarten through 12, one to provide technology support and one to serve as an instructional technology resource teacher to be full-time equivalent positions. However, the 2005 General Assembly did not appropriate funding for the four remaining Board recommendations that had been proposed.

In 2006, the Board began considering further changes to the Standards of Quality. It again reviewed the Standards of Quality through an inclusive public process, encouraged public comment from all education constituents and the public, and considered policy issues brought before it by superintendents, principals, teachers, local school board members, parents, and county and municipal officials.

Following this review, the Board made the following staffing recommendations:

- Require one full-time principal in each elementary school. [The SOQ currently requires a half-time principal for elementary schools with fewer than 300 students.]
- Require one full-time assistant principal for each 600 students in each school. [The SOQ currently requires one half-time assistant principal at an elementary

school with between 600 and 899 students and one full-time assistant principal at an elementary school with 900 or more students. The current middle and secondary assistant principal standard in the SOQ is for one full-time assistant principal per 600 students in a school.]

- Require one full-time equivalent instructional position for each 1,000 students in average daily membership to serve as reading specialists for the school division.
- Require school boards to employ enough speech-language pathologists to ensure a caseload that does not exceed 60 students per position.
- Require one full-time equivalent instructional position for each 1,000 students in grades kindergarten through eight to serve as a mathematics specialist.
- Require one full-time equivalent position per 1,000 students in grades kindergarten through 12 to provide schools with support in data management and utilization and the administration of state assessments. The data manager or test coordinator would hold a license issued by the Board of Education and serve as a resource to principals and classroom teachers in analyzing and interpreting data for instructional purposes.
- Require instructional and paraprofessional staff to ensure the following case load maximums for students who are blind or vision impaired: (i) resource teachers who serve such children for less than 50 percent of the instructional day, 24 students to one; (ii) teachers of self contained classes serving such children for 50 percent or more of the instructional day with a paraprofessional, 10 students to one; or (iii) teachers of self contained classes serving such children for 50 percent or more of the instructional day without a paraprofessional, eight to one.

While the 2007 General Assembly passed Senate Bill 795 providing for some technical and policy changes to the SOQ, it did not pass any of the recommended staffing changes to Standard Two.

On November 29, 2007, the Board of Education adopted a resolution reaffirming the commitment to the seven staffing recommendations that had not yet been funded and urging the Governor and General Assembly to renew their consideration of these recommendations.

In November of 2008, the Board again reaffirmed its commitment to the seven unfunded recommendations and also offered alternative options to address three of these recommendations as well as an additional option related to English Language Learners (ELLs). These alternatives were offered with an understanding of fiscal constraints and the need to promote flexibility without expending additional resources. The options offered were intended to integrate and link existing programs that reside both within the SOQ and outside of it and were as follows:

Recommendation 1 - Testing Coordinator/Data Manager. This addressed the need for a testing coordinator/data manager for every 1,000 students. The position would be Board-licensed and would be responsible for analyzing and interpreting data for the improvement of instruction. The SOQ already provides for one instructional technology resource teacher (ITRT) per 1,000 students. This

option was intended to give school divisions a choice to employ the ITRT, the testing coordinator/data manager, or a position that blends both duties. *This recommendation was accepted by the 2009 General Assembly and included in the Appropriation Act, effective July 1, 2009.*

Recommendation 2 - Reading Specialist. This option relates to the recommendation for one reading specialist for every 1,000 students in all grades. The option permits school divisions to hire a Board-licensed position to provide the intervention required for the Early Intervention Reading Initiative (EIRI), a program funded outside of the SOQ. School divisions could hire a reading specialist within the scope of the EIRI program. The use of the specialist to provide remedial services allows for efficiency and flexibility for school divisions delivering services to the K-3 population and was intended to integrate the EIRI with the SOQ. *This recommendation was accepted by the 2009 General Assembly and included in the Appropriation Act, effective July 1, 2009.*

Recommendation 3 - Mathematics Specialist. This option relates to the recommendation for one mathematics specialist for every 1,000 students in grades K-8, an option similar to that of the reading specialist. This option links the Algebra Readiness Intervention (ARI) to the SOQ by permitting school divisions to hire mathematics specialists as another option to provide the required intervention within the scope of the ARI program, which serves grades six to eight. The ARI resides outside of the SOQ. *This recommendation was accepted by the 2009 General Assembly and included in the Appropriation Act, effective July 1, 2009.*

Recommendation 4 - Instruction to English Language Learners (ELLs). To supplement the services provided to students identified with Limited English Proficiency (LEP), school divisions could use funds from the SOQ Prevention, Intervention, and Remediation account to hire additional ELL teachers to provide instruction. This funding would supplement the instructional services provided by the current SOQ staffing standard of 17 per 1,000 LEP students. *This recommendation was accepted by the 2009 General Assembly and included in the Appropriation Act, effective July 1, 2009.*

Study Methodology and Implementation

The 2009 General Assembly added language to Item 140 of the Appropriation Act requiring the Board of Education to review the SOQ "to evaluate the appropriateness of the existing staffing standards for instructional positions and the appropriateness of establishing ratio standards for support positions, with the objective of maximizing resources devoted to the instructional program."

In response to the mandate the Virginia Board of Education, on April 30, 2009, adopted the following resolution establishing the plan for conducting the mandated review of the SOQ.

ESTABLISHING A PLAN TO CONDUCT
THE 2009 REVIEW OF THE STANDARDS OF QUALITY

WHEREAS, Article VIII, Section 2, *Constitution of Virginia*, states in part, *"Standards of quality for the several school divisions shall be determined and prescribed from time to time by the Board of Education, subject to revision only by the General Assembly."*

WHEREAS, the General Assembly has directed the Board of Education to "*…review the current Standards of Quality to evaluate the appropriateness of the existing staffing standards for instructional positions and the appropriateness of establishing ratio standards for support positions, with the objective of maximizing resources devoted to the instructional program….*"

WHEREAS, the Standards of Quality prescribe broad policies to ensure that each public school in the Commonwealth is a school of quality and that each child in the Commonwealth has access to a school that will offer a quality education;

WHEREAS, the Board of Education believes that public education is of the highest priority in the state budget, and that the SOQ is the foundation program for public education in the Commonwealth; and

WHEREAS, the Standards of Quality define the minimum foundation the Commonwealth must provide to meet its constitutional obligation to maintain "an educational program of high quality" for the children of Virginia;

NOW, THEREFORE, BE IT RESOLVED that the Board of Education plans to conduct the 2009 review of the Standards of Quality as follows:

April 29 and 30, 2009

Standards of Quality Committee meeting and Board of Education meeting:

- Review background information and the charge from the General Assembly.
- Approve the work plan.
- First public comment period May 1 through July 31.

May 27, 2009

Standards of Quality Committee meeting:

- Invite specified stakeholders to give their recommendations.
- Invite the public to give their recommendations.

- Department of Education staff or the consultant will report on the research and data collection efforts.

June 24, 2009

Standards of Quality Committee meeting:
- Invite specified stakeholders to give their recommendations.
- Invite the public to give their recommendations.
- Department of Education staff or the consultant will report on the research and data collection efforts.

July 22, 2009

Standards of Quality Committee meeting:
- Invite the public to give their recommendations.
- Department of Education staff or the consultant will report on the research and data collection efforts.

September 17, 2009

Board of Education meeting**:**
- Review proposed recommendations, including statutory language and the fiscal impact.
- Second public comment period September 14 through October 2.

October 22, 2009

Board of Education meeting:
- Approve the recommendations.
- Submit the proposal to the Governor and the General Assembly.

The first public comment period was set for May 1 through July 31, 2009, to receive comments at the three public hearings during the SOQ committee meetings, at regularly scheduled Board of Education meetings and via mail and electronic mail. A second public comment period was set for September 14, 2009 through October 2, 2009, with four public hearings held on September 30, 2009, in Richmond, Pulaski, Chesapeake and Fairfax. Additionally, comments were also received at regularly scheduled Board of Education meetings and via mail and electronic mail during this period.

In order to keep the public informed about the review process, Department of Education staff created a Web page to provide information to the public about the SOQ review process and an e-mail mailbox for public comment (SOQComments@doe.virginia.gov). A summary of comments received during the public hearings at the SOQ Committee meetings along with the minutes of those meetings were posted on the Web site. Department of Education staff also sent a survey to all school divisions to gather information on possible changes needed to Standard Two of the SOQ. The Department

also contracted with a consultant to conduct research and analyze data collected from all Virginia school divisions in their Annual School Report submission to the Department for the 2007-2008 school year. More information on the consultant work is addressed later in this report and in Appendix B to this report.

Summary of Comments

Two public comment periods were held regarding the Standards of Quality (SOQ). The first was held from May 1, 2009 through July 31, 2009 and solicited general comments on the SOQ as it is presently written. The Board of Education received comments in its SOQ Committee meetings, Board of Education meetings and through the mail.

May 2009 SOQ Meeting

The following groups were invited and provided comments regarding revisions to the Standards of Quality at the May 27, 2009 SOQ Committee meeting:

- Virginia Association of School Superintendents;
- Virginia School Boards Association;
- Virginia Education Association;
- Virginia Association of Elementary School Principals;
- Virginia Association of Secondary School Principals;
- Virginia Association of Supervision and Curriculum Development;
- Virginia Parents Teachers Association;
- Virginia Municipal League; and
- Virginia Association of Counties.

In addition, the SOQ Committee welcomed comments from the public. In response, the Virginia First-Cities Coalition provided comments.

June 2009 SOQ Meeting

Four organizations provided comments at the June 24, 2009 SOQ committee meeting:

- Virginia Council of Administrators of Special Education;
- Virginia Association of School Nurses;
- Virginia School Counselor Association; and
- Virginia Consortium of Gifted Education Administrators.

Six public comments were also received at the meeting, including representatives from the Virginia Friends of Mali, JustChildren, the Virginia Parent Teacher Association, and the Petersburg Advocates for Children.

July 2009 SOQ Meeting

The public was invited to provide comments regarding revisions to the Standards of Quality at the July 22, 2009 SOQ committee meeting. Six speakers provided comments, including representatives from JustChildren, FACES of Virginia: Foster, Adoption, and Kingship Association, Fairfax County Public Schools, and Parent Leaders Advocating for Children's Education (P.L.A.C.E.), and Richmond City Schools.

In total, 31 comments were received during the Standards of Quality Committee meetings. Additionally, five comments were received during Board of Education meetings.

Additional Public Comment

During the first public comment period, written comments were also received from school divisions, organizations and individuals. Four comments were received from local school divisions, five comments were received from organizations and five comments were received from individuals. In addition, 1,130 individuals signed a petition supporting the recommendations of JustChildren.

Commenters made the following major recommendations to the Board:

- Oppose the proposal to adopt a cap on the number of support positions.
- Continue to recommend the staffing standards that have been proposed by the Board, but have not been funded by the General Assembly.
- Oppose lowering the Standards of Quality in any way.
- Prioritize mandates placed on local school divisions.
- Ensure that school division efforts to provide students with disabilities access to the general education curriculum are not hindered by funding incentives based on placement.
- Include caseload size for teachers of the vision impaired.

Commenters also made recommendations regarding staffing to the Board. These comments included:

- Require a full-time principal in for every school, employed on a 12 month basis.
- Increase the elementary school assistant principal staffing ratio from 900 students to one principal to 400 students to one principal.
- Do not supplant an assistant principal position by specifying that one assistant principal in each school function as a data coordinator.
- Require one Registered Nurse (RN) or Licensed Practical Nurse (LPN) in each school.
- Set the following staffing ratio for nurses in all schools: at least one half-time registered nurse to 299 students; at least one full-time registered nurse at 300

students; at least one half-time registered nurse for each additional 500 students over 1,000.

- Require a full time reading specialist in each school.
- Require additional reading services in certain schools based on a weighted formula.
- Continue to maintain a required school counselor/student ratio in the SOQ.
- Require local school divisions to employ two additional full-time equivalent positions in gifted education, one to plan, implement and evaluate gifted education and the other to act as a resource teacher in grades K-12 at a ratio of one teacher to 1,000 students.
- Increase state funding for English as a Second Language (ESL) teachers from 17 teachers per 1,000 students to 30 teachers per 1,000 students.
- Include one data coordinator for each school.
- Include at least one psychologist for up to 2,000 students.

A second public comment period was held from September 15 through October 2, 2009. The Board of Education adopted the following proposals at its meeting on September 17, 2009: 1) Policy Directions and Options; 2) Possible Action Items and Issues for Further Action; and 3) Draft Proposed Revisions to the Standards of Quality (see Board Findings section of this report). During this second public comment period, the public was invited to provide recommendations on these proposals. A total of 187 written comments were received from individuals, seven written comments were received from local school divisions and 12 written comments were received from organizations. Additionally, 92 comments were received during four public hearings.

Commenters made the following major recommendations to the Board:

- Full funding of the SOQ is essential.
- Revise the SOQ to include a minimum of one hour of planning time each day for all primary and elementary classroom teachers.
- Oppose the proposal to adopt a cap on the number of support positions.
- Support staff personnel, such as counselors, attendance workers, nurses, custodians, social workers, psychologists, and technology staff are essential to student education and welfare.
- Continue to recommend the staffing standards that have been proposed by the Board, but have not been funded by the General Assembly.
- Support of the Board's proposal to allow school divisions to have flexibility in hiring specialists in reading, mathematics, and ESL, and deploying assistant principals to schools with the greatest need, and in using funds for support services to provide additional instructional services.
- Support codifying some of the staffing ratios that are funded in the Appropriation Act.
- Support the policy directions proposed by the Board as well as the proposed language changes to the SOQ.

Commenters also made recommendations regarding staffing to the Board. These comments included:

- Include reading specialists at a ratio of one specialist to 1,000 students.
- Include a ratio of one nurse for every 750 students.
- Do not reduce or eliminate school counseling positions.
- Require local school divisions to employ two additional full-time equivalent positions in gifted education, one to plan, implement and evaluate gifted education and the other to act as a resource teacher in grades K-12 at a ratio of one teacher to 1,000 students.
- Increase the staffing ratio for English language learners to 30 teachers to every 1,000 students.
- Consider funding the required annual assessment of English language proficiency.
- Include a ratio of one psychologist for every 2,000 students.
- Do not cut positions in school libraries, including clerical personnel.
- Include elementary school library assistant positions.
- Oppose the proposal that would permit school divisions to use state and local funds for instructional technology resource teachers to employ a data coordinator position, an instructional technology resource teacher, or a data coordinator/instructional technology resource teacher blended position.
- Any changes to staff ratios and other regulations for career and technical education should not only reflect the needs of the schools, but also the needs of industry.
- Lower the caseload for speech language pathologists from 68 students to 60 students.
- Require at a minimum that all elementary schools have one full-time licensed art teacher, one full-time licensed music teacher, and one full-time licensed physical education teacher.

Commenters made specific recommendations regarding the policy directives and draft changes to the SOQ. The following are representative of their comments:

- Some comments supported the draft policy directives, while others supported all but the proposal to provide flexibility to use local and state funds for instructional technology resource teachers to employ a data coordinator position, an instructional technology resource teacher position, or a data coordinator/instructional technology resource position.
- Some comments supported all of the draft changes to the SOQ, while others supported all but the early reading intervention and mathematics intervention initiatives because these initiatives would result in increased testing, increased reporting requirements and do not recognize other local assessment options that may be proven effective. Also, the initiatives would result in redirecting staff to non-instructional purposes.
- There was disagreement among the commenters on increased staffing for gifted education, the employment of licensed personnel using Algebra Readiness funds, and the provisions regarding reading specialists.

A summary of all of the comments may be found in Appendix E of this report.

APA Report and Recommendations

Background

This report, *A Review and Analysis of the Virginia Standards of Quality*, was prepared by Augenblick, Palaich and Associates Inc. (APA), an education consulting firm based in Denver, Colorado. Much of APA's work has been for state-level policy makers in areas in school finance developing state aid allocation systems, evaluating school finance formulas, providing technical assistance on education funding-related issues, and assisting with state aid formulas in other states.

APA reviewed personnel ratios used in other states by contacting state officials, reviewed relevant literature and efficiency reports for school divisions in Virginia, and analyzed data provided by the Virginia Department of Education about the numbers of staff allocated by SOQ staffing standards or prevailing costs and the numbers of personnel actually employed, in order to understand what relationships might exist. The number of personnel actually employed was derived from data reported by school divisions to the Virginia Department of Education in the Annual School Report.

APA noted that, like almost every other state, Virginia's school finance system uses a foundation program as the primary basis of allocating state aid with the funding target level set by the SOQ for Virginia. School divisions can supplement this funding with local revenues. APA cited that many other states use foundation programs although most determine revenue targets on the basis of a dollar amount per student with adjustments for student and division characteristics.

APA also noted that the use of personnel ratios as part of a school finance system serves several purposes, including:

1. Creating a direct linkage between state requirements and division funding;
2. Increasing the likelihood that school divisions can meet state expectations if staffing allocations are tied to what is needed to meet objectives, assuming that there is a close relationship between ratios and actual staffing needs;
3. Increasing equity among divisions in the services offered; and
4. Requiring divisions to employ certain personnel as an assurance that all divisions will do so.

The APA report also discussed weaknesses regarding the use of personnel ratios, which include:

1. Not taking into account different personnel needed to serve divisions with different characteristics or special circumstances;
2. The undermining of local responsibility to organize education services by specifying how services should be delivered, when a state holds school divisions accountable for student performance as most states do; and
3. The issue of whether local governing bodies may appropriate local funding to school divisions to employ additional personnel and whether there is resource equity across school divisions.

Research/Literature Review

APA reviewed all of Virginia's division level efficiency studies conducted in the past few years, and found little information in these studies that would suggest needed changes in the current SOQ ratios. APA also compared Virginia's funding model to funding formulas in Alabama, Delaware, North Carolina, and Tennessee. All of these states provide staffing allocations for principals, assistant principals, and classroom teachers, but not all states have staffing allocations for all positions. Moreover, staffing ratios vary widely from state to state.

APA reviewed existing literature for ratio recommendations for the following positions:

1. Classroom teachers;
2. English as a Second Language (ESL) and special education teachers;
3. School administrators;
4. Clerical staff;
5. Instructional aides;
6. Library staff;
7. Nurses;
8. Technology specialists; and
9. Counselors.

APA cited that the literature about classroom teachers recommends small K-3 class sizes, but there is limited research about the benefits of small class sizes in the secondary level. The firm also noted that there is little research on instructional aides and what exists is contradictory and there is little research about school administrators, clerical, custodians or maintenance worker ratios. Finally, APA also found that technology specialists and counselors are noted as important in the literature, but there are no recommended ratios.

In examining personnel ratios in Virginia, APA's intent was to understand the relationship between the numbers of SOQ personnel allotted to each school division and division characteristics, particularly regarding enrollment and student need. APA also examined the relationship between the actual number of personnel employed and the number allotted for the SOQ and what, if any, differences might exist between the SOQ allotment and the number of positions actually employed. To do this, APA used weights to estimate student need. The full report and its accompanying tables (see Appendix B) explain the weighting in greater detail.

Findings

In its work, APA highlighted some key points about the SOQ for the Board's consideration. First, it appears that school divisions employ more personnel than the SOQ ratios provide. (The Annual School Report captures all positions employed within school divisions not just those related to the SOQ, and APA indicated that the finding is not unexpected for this reason.) Second, most of personnel categories with larger numbers of personnel actually employed fall into the instructional categories. APA found that the numbers of elementary and secondary teachers appear to be related to division needs. Furthermore, it was found that school divisions appear to be using the support costs received as part of the SOQ funding model to employ more

instructional personnel, validating APA's finding that the SOQ is intended to be a minimum education foundation program.

APA also found that all SOQ ratios could be expressed in personnel per 1,000 student terms, assuming that such a shift does not detrimentally affect funding or staffing and class sizes at the school and classroom levels. According to APA, this would simplify the funding methodology and avoid the "cliffs" built into some current SOQ ratios (based on break points related to school size) which create more variation in school division staffing.

Explanation of Statistics Calculated in the Report

APA provided some basic statewide information regarding the types of personnel analyzed in the report. In comparing actual staffing for instructional positions and the SOQ, APA found that:

- In ten of the 14 types of instructional personnel analyzed, the average number of personnel actually employed is at least ten percent higher than the average number of personnel allotted by the SOQ model.
- In nine of the 14 types of instructional personnel, there is a higher level of variation in the number of personnel per 1,000 students allotted by the SOQ model and the correlation between SOQ allocation and division size and student need is weak.

In comparing actual staffing for support positions and the SOQ:

- In four of the nine support personnel categories, the average number of personnel actually employed is at least ten percent lower than the number of personnel allotted by the SOQ model.
- The numbers of all types of support staff allotted under the SOQ ratios are very similar across school divisions. There appears to be no relationship between SOQ allocation and need although there is a weak relationship between actual and student need.

APA also examined the relationship between staffing and division size and student need across groups of school divisions. In analyzing the relationship between staffing and division size, it found that:

- The number of elementary and secondary teachers and secondary aides allotted by the SOQ model is sensitive to division enrollment.
- The number of support staff is unrelated to division size when looking at the SOQ allocations.

In analyzing the relationship between staffing and student need, it found that:

- There is a small relationship between SOQ allotted elementary and secondary teachers and division needs.
- The relationship is stronger for actual teachers employed. This suggests that school division actual staffing is more sensitive to need than the SOQ appears to be.

The full report from the consultants is contained in Appendix B of this report. Detailed information on these findings may be found in the section of the APA report labeled "*Examining Personnel Ratios in Virginia School Divisions*" and in Tables 2A, 2B, 3, and 4 of this report.

Survey of Local School Divisions and Recommendations

Background

In mid July, a Superintendent's Memorandum was distributed asking school divisions to respond to a survey that would be used for the study of the Standards of Quality (SOQ). The intent of the survey was to gather information from school divisions that would help the Board look at the SOQ as a whole and determine how school division needs and concerns could be factored in any recommended changes to the standards. The survey had a short turnaround time and was designed with the intent to gather data in the least burdensome manner possible, recognizing the time constraints on school divisions and the short turnaround time for reporting to the General Assembly. Eighty-five school divisions responded to the survey, for a general response rate of 64 percent.

The survey was divided into three parts:

1. Standards of Quality questions;
2. Flexibility language; and
3. General Assembly reporting requirements.

The survey asked for answers to Yes and No and general ranking questions in addition to soliciting narrative feedback regarding school division recommendations for SOQ changes and additional information on school division challenges.

The information below summarizes the responses from school divisions to the Yes/No and ranking questions. Because the narrative information collected from the responding school divisions is voluminous, the report summarizes the major themes and commonalities observed in the narratives provided.

Part I: SOQ Questions

1. Should there be specific staffing standards for some or all support positions as there are for instructional positions? (Please select only one answer.)

	Percent of All School Division Responses Received
Yes, for all support positions	25%
Yes, for some support positions	31%
No, no specific support standards needed	44%

If you answered yes for either some or all support standards, what recommendations do you offer for support staffing? The following observations are made regarding the majority of respondents who indicated either "no specific standards" or "some specific standards":

- School divisions should have the flexibility to staff according to individual needs.
- Standards are needed for central office staffing, custodial, bus drivers and nurses.
- Existing standards and funding should be maintained.

2. Of the positions noted below, which fall into the SOQ support category, which are the five most critical to your division in regards to student achievement? Please check exactly five (5).

Position	**Rank Among All School Divisions Responding to Survey**
Instructional Professional	1
Superintendent	2
Technology Professional	3
Assistant Superintendent	4
Administration Administrative	5
School-Based Clerical	6
Operations & Maintenance Professional	7
Instructional Technical Clerical	8
Attendance & Health	9
Support Technology Standard Professional **and** School Nurse	10
Administration Technical Clerical	11
Operations & Maintenance Technical Clerical	12
Technology Technical Clerical	13

3. Do you have any recommendations regarding revisions to the staffing standards for: 1) career and technical education (CTE); 2) special education; and/or 3) gifted education? Check all that apply.

Area	**Percent of All School Division Responses Received**
CTE	29%
Special Education	29%
Gifted Education	25%
None of the above apply	61%

If you checked any or all of these categories, what are your recommendations?
Respondents who offered recommendations had the following observations:

- Career and Technical Education (CTE) class size ratios are too restrictive and should be reviewed.
- Staffing in all three areas should be based on local needs.
- Specific standards for gifted and talented are needed.
- Staffing standards for special education should be increased.

4. Does your division employ more staff than what is prescribed in the SOQ for instructional and/or support positions?

	Percent of All School Division Responses Received
Yes	89%
No	11%

If yes, what are your division staffing standards? All survey respondents indicated staffing standards set by the SOQ are exceeded. The following general observations are noted:

- Many respondents provide staff according to student/school needs.
- Many respondents indicate that more building-level administrators and clerical staff are employed than are required by the SOQ.
- Elementary staffing ratios ranged from 12 students to one teacher with 1 to 22:1 ratio in K-3 and an 18:1 to 25:1 ratio in grades 3-6.
- A number of respondents had no specific standards or did not include standards in their narrative information.

5. On a scale of one to seven, please rank the categories in this table according to the greatest challenges that affect staffing within your school division. Rank each category according to a scale of 1 to 7, with one being the area of greatest challenge and 7 being the area of least challenge.

Challenges	**Rank Among All School Divisions Responding to Survey**
Population of Special Education Students	1
Population of Economically Disadvantaged	2
Parental Involvement	3
Transient Student Populations	4
Population of English Language Learners	5
Teacher Shortages	6
School Division Staff Turnover	7

For each of these areas, school divisions were asked: "What staffing standards are needed in order for you to meet this challenge?" Also, divisions were asked the following: "If your division faces challenges not listed above, please provide additional detail." The following observations were noted in each of the areas of challenge and are grouped from the greatest challenge to the least challenge.

Special Education

- More support personnel are needed, such as, speech pathologists, physical therapists, occupational therapists, vision impaired teachers, hearing impaired teachers, etc.
- Coursework requirements need to be reduced for persons who hold endorsements in other areas to gain a teaching endorsement in special education. Increased funding and support for special education teachers is needed to meet the federal highly qualified standard.
- Class sizes and caseloads need to be lowered.
- More assistance for regular education teachers is needed with the use of the inclusion model.

Economically Disadvantaged

- Most survey respondents ranked this as one of the top three challenges.
- Many respondents cited the need for additional staffing and training.
- Staffing should be based on the number of children who are disadvantaged to allow divisions to meet the student needs.
- More parental and community outreach support is needed for this category.

Parental Involvement

- There is a need for more intervention (student services) staff to work with parents particularly those parenting at-risk students.
- There is a need for more attendance officers.
- Most respondents ranked this from 4th through 6th with many ranking it 7th (lowest).

Transient Students

- This is not a significant challenge for most respondents.
- Some survey respondents cited the need for additional staff in this area.
- Some survey respondents indicated that additional support services are needed for these students.

English Language Learners (ELL)

- This area provides moderate challenge for most respondents.
- Flexibility in staffing is needed to meet the needs of the locality.
- Many survey respondents had no comments or cited a low enrollment of ELL students.

Teacher Shortages

- Small and rural school divisions cited difficulties in recruiting and retaining teachers.
- Shortages in mathematics and science teachers were noted by several divisions.
- Some respondents cited the need for salary incentives to help retain teachers.

Staff Turnover

- This area was not highly ranked as a challenge.
- Recruitment and retention is a problem in divisions paying lower salaries.
- Finding highly qualified teachers in mathematics, science, and other select endorsements is a challenge.
- There is a need for competitive salary and benefit packages in smaller school divisions.

6. What kind of flexibility do you need within Standard 2 for 2009-2010 and beyond? Is there a specific area or student population in your division that would benefit from increased flexibility? Should Standard 2 be modified to provide flexibility?

	Percent of All School Division Responses Received
Yes	58%
No	42%

Note: Percentages apply only to the last part of Question 6 -- whether Standard 2 should be modified to provide flexibility.

If you answered yes, then please provide additional detail. The following observations are noted:

- School divisions should be provided flexibility when and if state funding is reduced.
- School divisions should be allocated a total number of administrative and support positions based on student population and allowed the flexibility to determine how those positions should be deployed.
- Flexibility is needed in the use of funds for instructional technology resource teachers.
- More flexibility and support must be given to smaller divisions as these divisions do not have the same resources to oversee instruction or specialize in one subject area as larger divisions. When an overall ratio is used to determine funding and positions, equitable services are not provided and some small divisions may appear overstaffed.
- SOQ funding should be based on more realistic staffing ratios that reflect prevailing practices in Virginia.
- Maximum class size requirements should be eliminated.

7. School divisions receive funding related to the Standards of Quality that is used for both instruction and support services. School divisions are permitted to use funding for support services in the SOQ to provide instruction in the classroom. Keeping this in mind, what percent of the SOQ support services funding that your division receives is used to provide instruction at either the school or classroom level? (This question relates to positions that deliver instruction directly into the classroom.)

Range	Percent of All School Division Responses Received
0 to 10%	27%
10% to 25%	12%
25% to 50%	13%
More than 50%	48%

8. What percent of your support services funding is used to support schools by contracting for services?

Range	Percent of All School Division Responses Received
0 to 10%	88%
10% to 25%	11%
25% to 50%	0%
More than 50%	1%

Please name the top three areas where contractual services are used. The top three areas appear to be the following:

- Special education services (occupational therapy, physical therapy, evaluations, speech, etc.)
- Facilities maintenance
- Technology/software support

9. What other comments do you have regarding Standard 2? The following observations are noted:

- The SOQ requires the local school board to provide support services that are necessary for the efficient and cost effective operation and maintenance of schools. Flexibility for the deployment of resources should remain with the local governing body and support staff standards should not be set on a statewide level. Geographic distribution, age, and number of facilities will drive local needs and cannot be addressed adequately with standards.

- Prevailing staffing standards have enabled students to meet Standards of Learning (SOL) and Adequate Yearly Progress (AYP) requirements and should be

supported in the future to ensure students' continued success. Divisions should be allocated a total number of administrative and support positions based on student population and allowed the flexibility how best to deploy those resources.

- Many of the SOQ staffing requirements should be improved. In addition, neither the governor nor the legislature should reduce the current staffing formula. Any changes to the funding formula that decrease the number of staff will have a direct impact on the lives of students and the efficient operation of schools.

Part II – Flexibility Language

1. How many reading specialists will you employ for the 2009-2010 school year? Of these, how many will be employed using Early Intervention Reading Initiative funds?

Those school divisions responding to the survey will employ over 1,350 reading specialists, with over 100 of these specialists funded from Early Intervention Reading Initiative funds. The following table summarizes how these specialists are being used statewide:

Percent of Responding School Divisions Employing Reading Specialists	96%
Percent of Responding School Divisions Using Early Intervention Reading Initiative Funds	33%

2. How many mathematics specialists will you employ for the 2009-2010 school year? Of these, how many will be employed using Algebra Readiness funds?

Those school divisions responding to the survey will employ over 224 mathematics specialists, with over 38 of these specialists funded from Algebra Readiness funds. The following table summarizes how these specialists are being used statewide:

Percent of Responding School Divisions Employing Mathematics Specialists	54%
Percent of Responding School Divisions Using Algebra Readiness Initiative Funds	21%

3. How many additional teachers above the minimum required by the SOQ will be employed using funds from the SOQ Prevention, Intervention, and Remediation account to supplement instruction to identified students who are English Language Learners for the 2009-2010 school year?

Those school divisions responding to the survey will employ 126 additional teachers.

Percent of Responding School Divisions Employing Additional Teachers	31%

4. How many of Data Coordinators, Instructional Technology Resource Teachers (ITRTs), and/or Blended positions will be employed using funds from the SOQ ITRT funding for the 2009-2010 school year?

- More than one-half of the responding school divisions reported employing instructional technology resource teachers.
- About one-third of responding school divisions reported employing both a Data Coordinator and an Instructional Technology Resource Teacher.
- A smaller percentage of school divisions reported employing some kind of blended position.

Part III: Data Collection - Other General Assembly Reporting Requirements (Resolutions)

1. HJ651, Project Lead the Way. Will your school division participate in this project for the 2009-2010 school year?

	Percent of All School Division Responses Received
Yes	14%
No	86%

If no, does your school division plan to participate in this program at some point in the next three years (up to 2011-2012 school year)?

	Percent of All School Division Responses Received
Yes	40%
No	60%

2. HJ652, K-8 Mathematics Specialists. Will your school division employ K-8 Mathematics Specialists for the 2009-2010 school year?

	Percent of All School Division Responses Received
Yes	44%
No	56%

If yes, how will these positions be funded?

	Percent of Responding School Divisions That Employ Mathematics Specialists
State funding from existing intervention, remediation, and at-risk funding	18%
Other State Funds	12%
Federal Funds	25%
Local Funds	29%
Other	16%

Board Findings

After hearing public comment during the time period from May 1 to July 31 and after deliberating on both the findings from the consultant and on the school division survey results, the Board came forward at its September 2009 meeting with a set of policy directives and with a list of issues that need further study.

Policy Directives

The policy directives are as follows:

- Enhance the Standards of Quality (SOQ) so that the Commonwealth's basic foundation program for K-12 public education reflects a comprehensive educational program of the highest quality.
- Provide clarity and greater transparency in SOQ funding with the goal of maintaining the Commonwealth's commitment to public education funding at the state and local levels and encouraging a continued emphasis on school-based instructional services.
- Provide greater flexibility to school divisions in using non-instructional personnel funding for instructional support services.
- Support the appropriateness of establishing ratio standards for individual categories of "support service" positions as is the current practice used for instructional personnel.
- Advocate against permanent structural changes to the Standards of Quality that result in decreased funding for K-12 public education.
- Begin building a more comprehensive basic foundation program by including in the SOQ gifted, special education, and career and technical staffing ratios and certain incentive programs that have become core components of K-12 educational programs statewide and currently funded in the Appropriation Act.

- Set priorities for the Board's unfunded SOQ recommendations from previous years so that these instructional staffing standards can be fully implemented in future years.
- Begin to address the Board's school leadership priorities of requiring a principal in every school and increasing the number of assistant principals in schools with the greatest need.
- Mitigate the perverse incentive of reducing a school division's special education funding when it mainstreams students with disabilities into general education classrooms or uses Response to Intervention (RtI) and/or other instructional supports to reduce the number of students identified as needing special education services.
- Provide additional policy guidance and direction to school divisions offering alternative or nontraditional educational programs, such as the Individual Student Alternative Education Program (ISAEP).

In order to accomplish these directives, the Board identified the following revisions needed to language in the current SOQ:

- Codify the Board of Education's recommendation that was included in the 2009 Appropriation Act providing flexibility in the use of existing funds for hiring reading specialists, mathematics specialists, data coordinators, and instruction of English language learners.
- Codify the provisions of the Early Intervention Reading Initiative and the Algebra Readiness program by including them in the Standards of Quality and requiring all school divisions to provide these interventions with funding currently appropriated for these incentive programs.
- Codify the Appropriation Act provision that the Standards of Quality include a minimum of 58 licensed, full-time instructional positions per 1,000 students, including instructional positions for special education, gifted education, and career and technical education.
- Codify the staffing standards for special education (currently in regulations), gifted education (currently in the Appropriation Act), and career and technical education (currently in regulations).
- Provide school divisions the flexibility to deploy assistant principals to the schools with the greatest needs, so long as they employ a sufficient number of assistant principals divisionwide to meet the total number required in the current SOQ staffing requirement.
- Define the categories of personnel who make up "support services," specify how those positions are funded, and require transparency in the use of funds by mandating divisions publicly report the state and local amounts budgeted and expended for each category.

- Permit school divisions to use funds for support services to provide additional instructional services and include instructional services as a separate category to be reported publicly.

The appendices to this report contains a chart detailing these directives as well as draft language which modifies the SOQ.

Issues for Further Study

As resources become available, the Board expressed interest in conducting a comprehensive study of the following complex funding issues, with a report of the findings to the Governor and General Assembly for consideration as part of the 2010 review of the SOQ.

- The feasibility of converting the prevailing costs for each major category of the "support services" positions into ratios (for example, based on positions per 1,000 students), and including ratios for some or all of the categories in the Appropriation Act.
- The feasibility of establishing alternative staffing approaches to provide school divisions with additional instructional resources to address identified needs. This could include ratios based on positions per 1,000 students for assistant principals, school counselors, and library-media specialists that would reduce funding "cliffs." It could also include assigning weights for students who may be at-risk and require additional support, including special education services, services to English language learners, and services to disadvantaged students.
- The feasibility of creating a special education incentive fund or other funding methodologies to mitigate the perverse incentive of reducing a school division's special education funding when it mainstreams students with disabilities into general education classrooms or uses Response to Intervention (RtI) and/or other instructional supports to reduce the number of students identified as needing special education services.
- The feasibility of updating technology staffing ratios, taking into consideration the increased role of technology in instruction, assessment, and operations since staffing standards were first established in the SOQ.
- The feasibility of updating career and technical education staffing ratios, taking into consideration the (i.) implementation of new curricular pathways that require high-tech equipment and specialized instruction and (ii.) anticipated increased enrollments in CTE courses given the newly created standard technical and advanced technical diplomas.

Appendix C to this report contains a chart detailing these issues.

VIRGINIA BOARD OF EDUCATION

Report

APPENDICES

VIRGINIA BOARD OF EDUCATION: REVIEW OF THE CURRENT STANDARDS OF QUALITY

October 2009

Appendix Table of Contents

Appendix A: **Item 140.C.5.k.3) of the 2009 Appropriation Act.....3**

Appendix B: **APA Report 4**

Appendix C: **Chart of Possible Action Items and Issues for Further Action……34**

Appendix D: **Proposed Legislation Amending the Standards of Quality (SOQ).....44**

Appendix E: **Summary of Comments.....68**

Appendix F: **Rebenchmarking Presentation to the Virginia Board of Education – July 22, 2009 .....76**

Appendix A: Item 140.C.5.k.3) of the 2009 Appropriation Act

"The Board of Education shall review the current Standards of Quality to evaluate the appropriateness of the existing staffing standards for instructional positions and the appropriateness of establishing ratio standards for support positions, with the objective of maximizing resources devoted to the instructional program. The findings of this review, its associated costs, and its final recommendations for rebenchmarking shall be submitted to the Governor, the Chairmen of House Appropriations and Senate Finance Committees and the Joint Subcommittee on Elementary and Secondary Education Funding established pursuant to Item 1, paragraph H. of this Act no later than November 1, 2009."

Appendix B: APA Report

A PRELIMINARY REVIEW AND ANALYSIS OF THE VIRGINIA STANDARDS OF QUALITY

REPORT TO THE VIRGINIA DEPARTMENT OF EDUCATION

Prepared by

Augenblick, Palaich and Associates
Denver, CO

September 2009

Introduction

This report was prepared by Augenblick, Palaich and Associates (APA) in response to a request (Informal Request for Proposals, RFP # DOE 2009-11, issued on April 15, 2009) from the Virginia Department of Education (VDOE) to "review and evaluate the current Virginia Standards of Quality (SOQ) as to the appropriateness of the existing K-12 staffing standards for instructional positions and the establishment of ratio standards for support positions." APA responded to the RFP and was awarded a contract to undertake the services it had proposed in May 2009.

APA is an education consulting firm that was founded in 1983 and is located in Denver, Colorado. Much of APA's work has been for state-level policy makers in the area of school finance, including developing state aid allocation systems, evaluating school finance formulas, and providing technical assistance on education funding-related issues. APA has made significant contributions to designing the state aid formulas of several states, including Colorado, Kansas, Kentucky, Louisiana, Maryland, New Jersey, and Pennsylvania. In recent years, APA has focused its attention on the adequacy of education resources, which has required the development of procedures to cost out the resources school districts with different characteristics need in order to meet state student performance expectations.

In order to review and evaluate Virginia's Standards of Quality, APA undertook several tasks. We: (1) conducted a review of the personnel ratios used in other states or recommended by established organizations and the research that might support specific ratios; (2) reviewed the available efficiency review reports for school divisions in Virginia (located at: http://www.doe.virginia.gov/VDOE/efficiencyreview.html); (3) conducted phone interviews with state officials in two states that use personnel ratios as the basis of allocating state aid to school districts; and (4) analyzed data provided by VDOE comparing the numbers of SOQ personnel for which school divisions receive funding based on SOQ staffing standards, or based on prevailing costs, and the numbers of personnel school divisions actually employed for corresponding SOQ categories, as found in the Annual School Report, in order to understand what relationships might exist between numbers of personnel per 1,000 students and division characteristics such as their size (enrollment levels) and education needs.

The Role of Personnel Ratios in Allocating State Aid to School Divisions in Virginia

Virginia's School Finance System

Like almost every other state, Virginia uses a form of the "foundation program" (sometimes referred to as a "minimum foundation program" because it sets a base) as the primary basis of allocating state aid to school districts (divisions). Under a foundation program, a state sets a target level of funding for each school district and divides that amount between state and local sources based on the relative fiscal capacities of school districts. The funding target level can be set in a variety of ways, from simply specifying a per student amount (e.g., $4,000) to setting an amount and adjusting it by factors related to uncontrollable cost pressures associated with student and district characteristics (such as students with individualized education programs or small school districts) to building the amount based on specific

expenditures, such as those for personnel and textbooks. For the Standards of Quality, Virginia calculates the target revenue level for each school division primarily on the basis of numbers of personnel of different types and the salary levels assigned to those types of personnel; it also uses school division expenditure data primarily to fund support costs.

Many states that are members of the Southern Regional Education Board (SREB) have used approaches similar to Virginia's in setting the target funding levels for school districts over the past 40 years; however, several states have moved to a dollar amount per student with adjustments for student and district uncontrollable cost pressures (such as Florida, Kentucky, Louisiana, Maryland, and Mississippi). North Carolina goes even further than Virginia in precisely defining the foundation target for each district by using the actual salaries that each individual employee is eligible for based upon the statewide salary schedule and their individual education level and experience (and the state pays the entire cost rather than sharing it with local districts).

Under almost all foundation programs, school districts are free to supplement foundation funding with local revenues without limit. This is easier to do when school districts are fiscally independent (that is, they, through their school boards, determine whether additional revenue is desired and, if so, set local tax rates). For example, in Kentucky, school districts can generate up to 15 percent of foundation revenue through school board decisions and an additional 30 percent with voter approval. However, in Virginia, school districts are dependent upon their local governing bodies (county boards of supervisors and city councils), and cannot make such decisions.

Strengths and Weaknesses of Using Personnel Ratios in a Foundation Program

The use of personnel ratios as part of a school finance system serves several purposes. First, personnel ratios create a direct linkage between state programmatic requirements and the funding allocated to school districts; in many states programmatic requirements are disconnected from funding, sometimes creating what are referred to as unfunded mandates. Second, to the extent that there is a close relationship between the numbers of staff the ratios assure and the numbers of staff that are needed either to deliver the educational services required by the state or to achieve the state's educational objectives, they increase the likelihood that all districts will meet state expectations. Third, the use of personnel ratios increases the probability that all districts will provide similar services so that students across the state are treated in the same fashion, depending upon the autonomy of the local school board. Finally, the requirement that all districts employ specific numbers of staff in several personnel categories assures that districts that might otherwise not choose to employ certain kinds of staff will do so.

Of course, the use of personnel ratios has its weaknesses. The use of ratios may not take into account the numbers of personnel needed in districts with different characteristics or special circumstances. When a state holds school districts accountable for student performance, as most states do under what is sometimes referred to as "standards-based reform," the use of personnel ratios undermines local responsibility to organize education services by specifying how services should be delivered. And, since local governing bodies may appropriate local funding to school districts to employ additional personnel,

the existence of minimum personnel requirements does not assure resource equity across school districts.

Virginia's Personnel Ratios

Virginia's use of personnel ratios to drive the allocation of state aid to school divisions is part of the state's employment of Standards of Quality for public education. The Standards of Quality (SOQ) are referred to in Article VIII of the Virginia Constitution, under which they are to be "determined and prescribed" by the State Board of Education, subject to revision only by the Virginia General Assembly, which has the responsibility to determine the manner in which funds are to be provided that support the SOQs, including apportioning their cost between the Commonwealth and local governments. Standards of Quality were first adopted by the State Board of Education in 1971.

There are eight Standards of Quality, the second of which prescribes staffing standards (primarily for core instructional positions) for school divisions, which are the primary determinant of funding for each of the state's school divisions. The staffing standards are personnel ratios (students to personnel or personnel to students, sometimes expressed in per 1,000 student terms) and class size caps that both specify the numbers of personnel that each school division should employ and serve as the basis for determining, in large part, how much revenue each school division needs. Some personnel ratios are expressed in division-wide terms while others are expressed in school-wide terms. Personnel ratios exist for specific types of instructional staff and some support staff. Some ratios provide basic personnel while others reflect student characteristics, such as students with individualized education programs and students who are English language learners. Several are related to school characteristics, such as school size, or whether a school is an elementary, middle, or high school. In essence, the application of all personnel ratios to the numbers of students in schools and school divisions determines a roster of personnel for each school division, which can be multiplied by standard salary and benefit rates to determine the total cost for each school division. School divisions can choose to both employ additional personnel and pay all personnel at rates above those used by the state to determine the revenue needs of school divisions, although any added costs are likely funded through resources other than those specifically related to a particular ratio.

An example of a division-wide ratio is the one that applies to classroom teachers in grades one, two, and three, which is based on 24 students per teacher. An example of a school-wide ratio based on school size is the one that applies to librarians, which provides a part-time librarian for elementary schools with fewer than 300 students, a full-time librarian for elementary schools with 300 or more students, a half-time librarian for middle and high schools with fewer than 300 students, a full-time librarian for middle and high schools with between 300 and 999 students, and two full-time librarians for middle and high schools with 1,000 students or more. These kinds of ratios have built in "cliffs" whereby the number of personnel shifts at a specific point (such as 300 students), below which point one figure is used and above which point a different number is used; this approach does not permit any "smoothing" as enrollment changes.

Other ratios, such as the one for art, music, and physical education teachers in grades kindergarten through five is expressed as five staff per 1,000 students, which produces exactly five staff at 1,000

students but fewer staff as the number of students differs – this ratio would provide three staff at 600 students and 1.5 staff at 300 students, thereby avoiding a "cliff" at any point. A last type of ratio is the one used to provide staff for prevention, intervention, and remediation, which is based upon a population of children needing services (determined by free lunch factors) according to a pupil teacher ratio in range of 10:1 to 18:1, based upon division-level failure rates on Standards of Learning (SOL) English and mathematics tests for all students.

In the case of some support positions, school divisions are required to provide services necessary for the efficient and cost-effective operation of the schools although funding is based on prevailing statewide expenditures (as in pupil transportation and plant operations and maintenance).

Additional Research

Efficiency Studies

As part of this study, APA reviewed all of the division level efficiency studies conducted in the past few years, which were posted on the Virginia Department of Education's website.[1] The studies were undertaken by a few different companies and have been completed for 34 school divisions to date. The earliest study was posted in January 2004, with the most recent study posted in May 2009. The efficiency studies look at a number of areas of division operations, ranging from educational service delivery to transportation. APA focused its review on any information regarding the SOQ ratios.

APA found very little information in the efficiency studies that would suggest needed changes to the current SOQ ratios. Almost uniformly the studies indicate that districts are currently meeting the minimum SOQ ratios. The SOQ ratios examined in the efficiency studies are generally instructional ratios such as those for teachers, principals and assistant principals. The studies often note the districts are meeting the SOQ ratios and then change the analysis to division comparisons to determine if a district is staffing in an efficient manner, rather than analyzing whether ratios should be increased or decreased. In a few cases the SOQ ratios are used as an efficiency measure. If a district has more staff than the SOQ ratios require the study might suggest a reduction in the level of staffing; this was almost always related to school level administration. Again, overall the studies provided little guidance as to any needed changes to the SOQ ratios.

Phone Calls

APA also agreed to interview states that use personnel as the principal factor in funding school districts. With the help of Michael Griffith, Senior Policy Analyst from the Education Commission of the States (ECS), APA identified six states that use this type of funding system. The states are Alabama, Delaware, Idaho, North Carolina, Tennessee and West Virginia. It is important to note that none of these states fund exactly like Virginia. An example of the differences is that every state has some sort of ratio for teachers, but some states include funding for teachers such as art or P.E. teachers in that figure while others do not. These differences make it very hard to compare specific ratios state to state. However,

[1] http://www.doe.virginia.gov/VDOE/efficiencyreview.html

after further examining the six states APA identified four states to contact, Alabama, Delaware, North Carolina and Tennessee. Table 1 below describes the allocations for the four states APA contacted. Again, it is important to remember that the ratios are not necessarily comparable since the systems implement the ratios differently. After repeated attempts to make contact with each of the four states APA was able to conduct interviews with Alabama and North Carolina.

In each of the interviews APA asked questions, such as:

1. Where did the ratios come from?
2. Are the ratio levels correct? Should any of them be higher? Lower?
3. Should other ratios be used?
4. As far as support staff goes, do you think any ratios are particularly important?

APA spoke to Craig Pouncey with the Alabama Department of Education. He mentioned that the ratios were set in 1995 and applied based on the ADM. The ratios used in Alabama focus on all certified teaching staff positions for the districts. At this point Alabama is comfortable with the ratios that are used. The state funds administrators and support staff based on the Southern Association of Colleges and Schools (SACS) ratios from 2000. The state has recently created funding streams for both technology coordinators and nurses. Both position types have been funded through line item appropriations that can be eliminated at anytime. Other operational staff members are allocated based on per teaching unit amounts.

The interview in North Carolina was with Philip Price from North Carolina Department of Education. He mentioned that North Carolina has used the personnel ratios since 1985. A full study was done at that time to set the ratios in order to meet the staffing needs of districts. Though some of the ratios have been changed since, notably the K-3 staffing ratio, many ratios have remained the same. The system has been challenged in court and been upheld. Any changes that have been made to the ratios have generally been to increase staffing levels. The state currently allocates a dollar amount per ADM to allow districts to decide what type of non-instructional support to provide with those dollars. The state is unique in that it guarantees a minimum salary amount for teachers, principals, assistant principals and guidance counselors. This means the district gets a minimum level of funding but also means they have little flexibility in how they use the funds allocated for these types of personnel. However, school districts in North Carolina do not have full autonomy like divisions in Virginia do.

Since APA was not able to interview a representative from either Delaware or Tennessee directly, APA examined existing documents regarding each state's funding system. The information for both states, in addition to Alabama and North Carolina, is contained in Table 1 on the following page. Information for Virginia is also included for comparison.

Table 1

Comparison of Staffing Allocations Between Virginia and Five Other States

State	Principal	Assistant Principal	Classroom Teachers	Resource Teachers	Instructional Technology Resource Teachers and Technology Support	English Language Learner (ELL) Teachers	Librarian	Guidance Counselor	Clerical Staff	Professional Instructional Positions and Aides	Nurses
Alabama	1 principal per school	Varies based on size of school and varies based on type of school. For Elementary, 0 below 660 students, .5 between 660 and 879, 1 between 880 and 1099, 1.5 between 1100 and 1319, 2 1320 and above	1 per 13.8 (grades K-3); 1 per 21.4 (grades 4-6); 1 per 20.1 (grades 7-8); 1 per 18.0 (grades 9-12)				Varies based on size of school and varies based on type of school. Cliff style of funding.	Varies based on size of school and varies based on type of school. Cliff style approach to funding.			One per system and an additional $35.44 per ADM for additional nurses
Delaware*	1 for each 15 or more units in a school	1 for each 30, 55, 75, 95 units in a school	1 per 34.8 (half-day K); 1 per 17.4 (grades 1-3); 1 per 20 (grades 4-6); 1 per 20 (grades 7-12)						1 for each 10 units for first 100 units, then 1 for each 12 units over 100 units	2 in lieu of a teacher in certain Special Education settings	1 for each 40 units (Special Education)
North Carolina	Any school above 100 students entitled to a principal	One month of assistant principal time per 80 ADM	1 per 18 (grades K-3); 1 per 22 (grades 4-6); 1 per 21 (grades 7-8); 1 per 24.5 (grade 9); 1 per 26.64 (grades 10-12)	Base allocation with a minimum of one teacher assistant per eligible LEA		Base allocation with a minimum of one teacher assistant per eligible LEA	Part of Certified Instructional Support allocation of one per 200.10 ADM. District controls the allocations.	Part of Certified Instructional Support allocation of one per 200.10 ADM. District controls the allocations.		Can be converted from the Certified Instructional Support allocation at two Non-Certified positions for every one certified position.	Part of Certified Instructional Support allocation of one per 200.10 ADM. District controls the allocations. Minimum of one per 3,000 ADM

*In Delaware, a district earns one unit for every 20 regular secondary education students, 17.4 regular elementary students, 10 mild special education students, six moderate special education students or four severe special education students. Staffing allocations are then based on the number of units a district has. If a district has more than half of the number of students required to generate a unit, the funds are allocated for a full unit. (Report on Education Funding in Delaware, LEAD Committee 2008)

Table 1 (continued)
Comparison of Staffing Allocations Between Virginia and Five Other States

State	Principal	Assistant Principal	Classroom Teachers	Resource Teachers	Instructional Technology Resource Teachers and Technology Support	English Language Learner (ELL) Teachers	Librarian	Guidance Counselor	Clerical Staff	Professional Instructional Positions and Aides	Nurses
Tennessee	1 half-time per school (with less than 225 students); 1 full-time per school (225 students or more)	1 half-time per school (elem with 660-678); 1 full-time per school (elem with 880-1,099 students); 1.5 per school (elem with 1,100-1,319 students); 2 per school (elem with more than 1,319 students); 1 half-time per school (secondary with 300-649 students); 1 full-time per school (secondary with 650-999 students); 1.5 per school (secondary with 1,000-1,249 students); 2 per school (secondary with more than 1,250 students + 1 for each additional 250 students)	1 per 20 ADM (grades K-3); 1 per 25 ADM (grades 4-6); 1 per 25 ADM (grades 7-9); 1 per 22.08 ADM (grades 10 12)	1 art teacher per 525 ADM (grades K-6); 1 music teacher per 525 ADM (grades K-6); 1 PE teacher per 350 ADM (grades K-4); 1 PE teacher per 265 ADM (grade 5-6)		1 ELL instructor per 30 ELL students; 1 ELL translator per 300 ELL students	1 half-time librarian per school (elem & middle with 265 or fewer students); 1 full-time librarian per school (elem & middle with 265-439 students); 1.5 librarian per school + 0.5 assistant (elem & middle with 440-659 students); 2 librarians per school + 1 assistant (elem & middle with 660 or more students); 1 half-time librarian per school (high with 299 or fewer students); 1 full-time librarian per school (high with 300-999 students); 1.5 librarian per school (high with 1,000- 1,499 students); 2 librarians per school + 1 assistant per each additional 750 students (high school with 1,500 or more students);	1 per 500 ADM (grades K-6); 1 per 350 per ADM including vocational education (grades 7-12)		1 per 16.67 vocational FTEADM (grades K-3); 1 SpED assistant per 60 SpEd students, 1 instructional assistant per 75 ADM (grades K-6); SpEd staff based on disability	1 per 3,000 ADM
Virginia	Principals in elementary schools, one half-time to 299 students, one full-time at 300 students; principals in middle schools, one full-time, to be employed on a 12 month basis; principals in high schools, one full-time, to be employed on a 12-month basis	Assistant principals in elementary schools, one half-time at 600 students, one full-time at 900 students; assistant principals in middle schools, one full-time for each 600 students; assistant principals in high schools, one full-time for each 600 students	(i) 24:1 in kindergarten with no class being larger than 29 students, if the average daily membership in any kindergarten class exceeds 24 pupils, a full-time teacher's aide shall be assigned to the class; (ii) 24:1 in grades 1, 2, and 3 with no class being larger than 30 students; (iii) 25:1 in grades 4 through six with no class being larger than 35 students; and (iv) 24:1 in English classes in grade 6 through 12.	Local school boards shall employ five full-time equivalent positions per 1,000 students in grades kindergarten through five to serve as elementary resource teachers in art, music, and physical education.	Local school boards shall employ two full-time equivalent positions per 1,000 students in grades kindergarten through 12, one to provide technology support and one to serve as an instructional technology resource teacher.	17 full-time equivalent instructional positions for each 1,000 students identified as having limited English proficiency.	Librarians in elementary schools, one part-time to 299 students, one full-time at 300 students; librarians in middle schools, one-half time to 299 students, one full-time at 300 students, two full-time at 1,000 students; librarians in high schools, one half-time to 299 students, one full-time at 300 students, two full-time at 1,000 students	Guidance counselors in elementary schools, one hour per day per 100 students, one full-time at 500 students, one hour per day additional time per 100 students or major fraction thereof; guidance counselors in middle schools, one period per 80 students, one full-time at 400 students, one additional period per 80 students or major fraction thereof; guidance counselors in high schools, one period per 70 students, one full-time at 350 students, one additional period per 70 students or major fraction thereof	Clerical personnel in elementary schools, part-time to 299 students, one full-time at 300 students; clerical personnel in middle schools, one full-time and one additional full-time for each 600 students beyond 200 students and one full-time for the library at 750 students; clerical personnel in high schools, one full-time and one additional full-time for each 600 students beyond 200 students and one full-time for the library at 750 students.	if the average daily membership in any kindergarten class exceeds 24 pupils, a full-time teacher's aide shall be assigned to the class	No specific staffing allocation, but covered in prevailing support costs

Literature Review

Additionally, APA conducted a review of relevant literature. Over the years, there have been a plethora of studies on staffing ratios. The research can be categorized into three categories: (1) Empirical research; (2) Papers that utilize the research to produce conclusions on appropriate ratios; and (3) Accreditation standards. Some of this research can be used as the basis to set minimum or maximum staffing ratios in schools that may improve the odds of attaining particular student outcomes. For other staff positions, the relationships between ratios and outcomes are less direct. For example, clerical staff may not interact with students at all, yet the need for at least some clerical staff within the school is not disputed. Research on the direct and indirect relationships is presented in this analysis.

This analysis presents the empirical basis for lower student-to-staff ratios and then presents more specific information on suggested ratios (if available in the literature).

Teachers

There is a wide body of literature documenting the positive impact of small class sizes for students in grades K-3. Specifically, the research documents that smaller classes are especially beneficial for reading and math achievement and for low-income and minority students (Robinson, 1990; Achilles, 1999; Gerber, Finn, Achilles, & Boyd-Zaharias, 2001; Grissmer, 1999; Nye, Hedges, & Konstantopoulos, 2002; Finn & Achilles, 1999; Miller, 2002).

An early meta-analysis of class sizes studies was completed by Glass and Smith in 1979. This meta-analysis concluded that class sizes of 20 students or fewer can have a positive effect on academic achievement (Glass & Smith, 1979). An evaluation of a class size reduction policy in Indiana documents the positive impacts of class sizes of 15 students or less (Chase, Mueller, & Walden, 1986). Probably the most influential study to date is the Tennessee Project STAR, a large-scale randomized study of students in grades K-3. Data from this study indicated that students in classes with 13-17 students outperformed students in classes with 22-26 students, even when the larger classes added an aide (Word, et al., 1990; Gerber, Finn, Achilles, & Boyd-Zaharias, 2001). Subsequent analysis of STAR data has shown that small classes in the early grades produce lasting benefits for students, such as higher high school graduation rates (Krueger & Whitmore, 1998; Cohen, Miller, Stonehill, & Geddes, 2000; Egelson, Harman, Hood, & Achilles, 2002; Finn, Fox, McClellan, Achilles, & Boyd-Zaharias, 2006; Finn, Gerber, & Boyd-Zaharias, 2005; Nye, Hedges, & Konstantpoulos, 2000).

While the research on class sizes in the early elementary grades is substantial, there is little or no research to suggest that small middle or high school class sizes are beneficial to student performance. According to Odden et. al., (2005), most comprehensive school reform models propose class sizes of 25 or less (Stringfield, Ross, & Smith, 1996; Odden A., 1997). The Northwest Association of Accredited Schools (NAAS) sets an accreditation standard of no more than 160 students per teacher's grading period if on a traditional schedule, 140 students if on a trimester schedule, and 180 students If on a block schedule (Northwest Association of Accredited Schools, 2008). How this translates to actual student-to-teacher ratios and class size is unclear.

At least one author found that small classes not only improve student achievement, but also are more cost effective than regular classes with aides (Grissmer, 1999). It is important to note that student-to-teacher ratios are not synonymous with class sizes. The research indicates that it is important to provide an adequate number of teachers to maintain these class sizes, and allow teachers time for professional development, collaboration, and planning. Additional teachers may also be necessary if the school provides tutoring outside of regular school hours or the school year. The actual number of teachers required to do this may vary significantly due to school schedules and regulations.

Special Education Teachers

A number of studies document the positive impact of smaller student-to-teacher ratios and smaller class sizes on the academic outcomes of special education students (Thurlow, Ysseldyke, Wotruba, & Algozzine, 1993; Keith, Fortune, & Keith, 1993; Keith, Keith, Young, & Fortune, 1993). Special education students often require more personal attention than basic education students. Specifically, one study found that special education students were likely to spend more time engaged and teachers were more active and adaptive when student-to-teacher ratios were lower (The Council for Exceptional Children, 1989). A Virginia study concluded that special education students in smaller classes achieved at higher levels in reading, math, and social studies than their peers in larger classes (Keith, 1993). Researchers in New York reported that larger special education classes were associated with less time spent on academics and higher incidences of misbehavior (MAGI Educational Services, 1995).

One research study found that the maximum special education student-to-teacher ratio was typically 15-to-1 (McCrea, 1996). In the report from Virginia (referenced above), teachers believed that manageable class sizes without paraprofessionals were not much smaller than manageable class sizes with paraprofessionals (Keith, Fortune, & Keith, 1993).

Unfortunately, information on the *optimal* student-to-teacher ratio for special education students is relatively sparse. One of the few existing studies compares special education student-to-teacher ratios of 1-to-1, 3-to-1, 6-to-1, 9-to-1, and 12-to-1 and found that academic engagement, task completion, task success, and instruction were both significantly better under lower ratios (Thurlow, Ysseldyke, Wotruba, & Algozzine, 1993). Another study on class size and special education students concluded that although students performed better under lower ratios, there was no optimal student-to-teacher ratio that should be recommended (McCrea, 1996).

ESL Teachers

Research on class size and student-to-teacher ratios for English-as-a-Second-Language (ESL) students is similar in nature to the research for all students, although the research base for ESL students is considerably smaller. That is, the limited research generally suggests that lower class sizes and student-to-teacher ratios are beneficial, but does not reach any conclusions about optimal class sizes or ratios. For example, programs such as Éxito Para Todos, the bilingual adaptation of Success for All “increases chances of academic success by reducing student-to-teacher ratio”, but does not recommend a particular ratio (Slavin & Madden, 1999).

Another study found that smaller class sizes with less pull-out time positively impact the oral proficiency of ESL students in first grade (Oberg, 1993). Specifically, this study compared the oral proficiency of ESL students in 45-minute classes with six to eight students with the proficiency of ESL students in 90-minute classes with nine to fifteen students (Oberg, 1993). A Texas evaluation of high performing ESL students showed an average ESL student-to-teacher ratio of 24-to-1 (Texas Education Agency and Texas A&M University, Corpus Christi, 2000). In an effort to identify the appropriate student-to-teacher ratio for ELL students, one group of researchers initially recommended providing 0.4 FTE teachers for every 100 ELL students, in addition to tutoring resources (Odden, et al., 2005). Based on input from professional judgment panels, this recommendation was later modified to 1.0 FTE teacher for every 100 ELL students.

School Administrators

APA was unable to locate much research on the impact of student-to-administrator ratios. Because most schools have at least 1 FTE principal, there has not been much research on the differences between schools that have a principal and those that do not. The only study that addressed these ratios was a comparison between California schools that "beat the odds" and other California schools. Schools that "beat the odds" were defined as those that consistently performed at higher levels than predicted by their demographics. This study found that student-to-administrator ratios were lower in elementary schools that beat the odds (Perez, et al., 2007). NAAS also sets a maximum ratio of 550 students per administrator as one of its accreditation standards (Northwest Association of Accredited Schools, 2008).

Clerical Staff

There is also virtually no research on the impact of clerical staff on student achievement. This is not surprising given that clerical staff have little or no direct impact on instruction. Nonetheless, every school needs clerical staff to help manage day-to-day school operations. NAAS recommends one administrative support staff member for each 350 students (Northwest Association of Accredited Schools, 2008).

Instructional Aides

There is very little research on the relationship between instructional aides and academic achievement and what research exists is largely contradictory.

Using data from Tennessee's Project STAR, one researcher concluded that students in smaller K-3 classes outperformed those in larger classes even when an aide was present in the larger classes (Word, et al., 1990). Another study using STAR data examined the short- and long-term effects of teacher aides on student academic achievement. These researchers found little positive impact of teacher aides on student achievement (Achilles, Finn, Gerber, & Boyd-Zaharias, 2000). According to other researchers, students in regular-sized classes with and without aides show little difference in reading achievement (Slavin, 1994; Gerber, Finn, Achilles, & Boyd-Zaharias, 2001). In some cases, students in classes with aides actually performed more poorly than students in classes without an aide (Finn, Gerber, Farber, & Achilles, 2000). In addition, an analysis of achievement and costs concluded that small class sizes were more likely to improve achievement than the presence of aides, and also more cost effective than regular sized classes with aides (Grissmer, 1999).

Nonetheless, some research indicates that instructional aides may be helpful in some situations. One study found that the presence of an instructional assistant may influence reading and language achievement in schools with higher socio-economic levels (Lapsley, Daytner, Kelly, & Maxwell, 2002). Another study concluded that early primary school students who were in a class with an aide for a year or more performed higher on the SAT reading test (Finn, Gerber, Farber, & Achilles, 2000). Finally, an evaluation of a class size reduction policy in Indiana found that achievement scores were higher in classrooms with an instructional assistant than in unassisted classrooms (Lapsley, Daytner, Kelly, & Maxwell, 2002).

Library Staff

The literature indicates that a qualified library media specialist, a larger library staff, and a library staffed for more hours may improve student test performance, grades, reading comprehension, research skills and the ability to express ideas effectively (Baumbach, 2002; Baxter & Smalley, 2003; Lance, 1994; Haycock, 1995; Lance, Rodney, & Hamilton-Pennell, 2000; Smith, 2001).

Specifically, the research recommends that each school library have at-least one full-time certified library media specialist and one full-time support staff member (Baumbach, 2002; Smith, 2001). Another study provides evidence that students from high schools with library media teachers display better research skills in college (Smalley, 2004). NAAS recommends the following staffing ratios: one library media specialist for schools with 500 or fewer students, and one library media specialist plus an unspecified number of additional library media personnel at schools with more than 500 students. The NAAS standards do not require a certified library media specialist for schools with less than 250 students.

Nurses

Research on school nurses indicates that lower student-to-nurse ratios are likely to have positive impacts on student well-being (Bradley, 1998; Fryer & Igoe, 1995; Guttu, Engelke, & Swanson, 2004). An evaluation in Missouri found that as student-to-nurse ratios improved, the length of time spent in the health center decreased and more students returned to class after visiting the health center (Igoe, 2002). In a 2003 meta-analysis, researchers concluded that school nursing strategies that are targeted at specific student populations had positive effects on student academic performance (Maughan, 2003). A Seattle study found that students who were able to receive health care at school demonstrated more classroom attentiveness (Barkan, Pfohman, & Bolan, 2004). Furthermore, this study indicated that school health clinics helped reduce absenteeism, the number of dropouts, and helped improve school safety, student performance, substance abuse problems, and pregnancy rates (Bradley, 1998).

Although no specific student-to-nurse ratios can be recommended by reviewing the literature, the federal government advocates a student-to-nurse ratio of 750-to-1 (U.S. Department of Health and Human Services (2000), *Health People*, 2010). The research on health clinics also indicates that a health clinic at each school with at least one full-time staff member may also be advantageous (Bradley, 1998).

Custodians and Maintenance Workers

There is no research linking custodians and maintenance workers to student achievement. However, these staff members perform essential duties within the school. A set of researchers has developed a formula that they believe takes all custodial duties into account (Odden, et al., 2005). This formula is:

(1 custodian for every 13 teachers + 1 custodian for every 325 students + 1 custodian for every 13 classrooms + 1 custodian for every 18,000 gross square feet) / 4.

One author has also outlined a very detailed formula for estimating the number of necessary maintenance workers. For more information, please see references to the work of Odden, et al., 2005.

Technology Specialist

The research identifies a technology specialist as an integral component of computer and information technology programs (Beglau, 2005; Dexter, Seashore, & Anderson, 2003; Stringfield, Ross, & Smith, 1996; North Central Regional Educational Lab, 2005; Wenglinsky, 2005). A technology specialist typically troubleshoots technology problems, maintains technology, and trains teachers in how to integrate technology into their instruction (North Central Regional Educational Lab, 2005). Studies have found this training to be important to how teachers use technology in their classrooms (Becker, 1994).

Counselors

The literature consistently documents the positive impact on student academic performance and behavior (Gerler, 1985; Prout & DeMartino, 1986; St. Clair, 1989; Lapan, Gysbers, & Petroski, 2001). Specifically, a number of studies conclude that school counseling may decrease inappropriate behavior, improve student-teacher relationships, and improve student ability to stay on task (Baker & Gerler, 2001; Lapan, Gysbers, & Petroski, 2001; Watts & Thomas, 1997). Counselors may also help to improve students' social skills, self-awareness, and other developmental skills (Borders & Drury, 1992; Litrell, Malia, & Vanderwood, 1995; Verduyn, Lord, & Forrest, 1990; Schlossberg, Morris, & Lieberman, 2001). A fairly recent study used regression models to investigate the relationship between student-to-counselor ratios and student discipline. The study found significant substantial decreases in discipline problems as the ratios decreased (Carrell & Carell, 2006). Decreases were especially pronounced among black male students and low-income students (Carrell & Carell, 2006).

Academically, several studies have found that counselors helped students improve their grades (Gerler, 1985; Watts & Thomas, 1997; Lee, 1993). The influence of counselors may continue beyond high school as well. Research has concluded that counselors help students define career plans, increase their aspirations, and reduce drop-out rates (Beardan, Spencer, & Moracco, 1989; Lapan, Gysbers, & Yongmin, 1997; Kaufman, Kiein, & Frase, 1999; Mau, Hitchcock, & Calvert, 1998; Whiston & Sexton, 1998).

NAAS sets its accreditation standard at a ratio of 300 students for each staff member providing guidance and counseling (Northwest Association of Accredited Schools, 2008). The American School Counselor

Association recommends a student-to-counselor ratio of 250-to-1. The Carrell & Carrell (2006) study indicated that this ratio was helpful in reducing discipline problems.

Examining Personnel Ratios in Virginia School Divisions

Defining and Measuring Personnel

In order to help us understand how the SOQ personnel ratios work in Virginia, we felt that it was important to examine data for every school division. We had three objectives in mind when we undertook this examination: (1) to understand the relationship between numbers of personnel allotted to each school division by division characteristics, particularly size (enrollment level) and need (the personnel implications of having students with special needs); (2) to understand the relationship between the actual number of personnel employed as reported by school divisions and the number allotted by SOQs; and (3) to understand whatever variation might exist across school divisions in both allotted and actual numbers of employees. The first objective provides information about whether the personnel ratios are working appropriately while the second objective provides information about how well the personnel ratios represent how districts deliver education services; the third objective allows us to delve into the equity of the system.

In order to undertake these examinations for Virginia as a whole, we asked the VDOE to provide us with data about: (1) the numbers and characteristics of students enrolled in school divisions; (2) the number of employees allotted to each school division in every SOQ personnel category for which a personnel ratio exists; and (3) the number of staff actually employed in every personnel category for which a personnel ratio exists. We made a number of decisions about what data we would examine and how it would be organized based on discussions with VDOE staff and mutual agreement about how to proceed as quickly as possible given the time constraints that existed for our work: (1) we would focus on the 2007-08 year because these data become the basis for cost rebenchmarking in the 2010-2012 biennium; (2) data would be organized into 132 school divisions based upon how school divisions are paid and how Virginia's report card data are aggregated; and (3) certain personnel categories would be aggregated, primarily elementary teaching staff and secondary teaching staff.

In order to examine what personnel are allotted in the SOQ and what personnel are actually employed by a school division, the VDOE provided information to us related to estimating positions generated in the SOQ model using comparable cost and FTE factors. The estimated positions generated by the SOQ model (solely for the purposes of this study) and provided to us by the VDOE are what we view as allotted positions. For the actual positions employed, we used personnel information provided to us from the VDOE as reported by school divisions in the Annual School Report for the 2007-2008 school year, which represent the data that will be used to estimate SOQ costs for the 2010-2012 biennial budget in Virginia. The Annual School Report is a multi-faceted reporting tool that is used for federal reporting and other purposes, not solely for the purpose of generating SOQ costs and positions. Because of the nature of the Annual School Report and the significant burden of reporting that it places on school divisions, it is our understanding that it is not possible to conform the personnel section of this report to a format that is 100 percent compatible to the structure of the SOQ model. Consequently, the

ability to correlate the allotted positions to those actually employed is challenging and needs to be considered when examining variations in the different categories of positions.

We determined that the only way we could compare divisions was to translate numbers of employees allotted or actually employed into numbers of employees per 1,000 students. This is the case because there are variations across school divisions in enrollment and student demographic characteristics. Because of the autonomous nature of Virginia school divisions, this means that every division is likely to have a different number of employees, allotted or actual, which makes it impossible to interpret whether the system is working appropriately. While we could have used the ratio of numbers of actual-to-allotted staff to examine the second objective identified above, and never had to look at employees per 1,000 students, it would have been impossible to examine the first objective without doing so.

Using employees per 1,000 students is useful for several reasons. First, it is easy to interpret: for example, if an SOQ ratio were expressed as one teacher per 25 students, that equals 40 teachers per 1,000 students. Additionally, a standard based on every 1,000 students can be used to compare different categories of personnel to one another, is a more comparable measure across school divisions, and is easy to compare over time.

Before we look at employee figures, it is useful to understand some of the differences that exist across the 132 Virginia school divisions. We obtained 2005-2006 data from the National Center for Education Statistics (NCES of the U.S. Department of Education) in order to look at enrollment and demographic characteristics. We found that the average enrollment of Virginia school divisions was about 9,250 students although 11 divisions had fewer than 1,000 students and 13 divisions had more than 20,000 students. While 31.4 percent of all students were eligible for free and reduced price lunch, in 19 divisions fewer than 20 percent of all students were so eligible and in 14 divisions more than 60 percent of all students participated in the free and reduced price lunch program. On average, 14.0 percent of all students had individualized education programs (IEPs), making them eligible to participate in special education programs, although in four divisions fewer than 10 percent of all students were in special education programs and in six divisions, more than 20 percent of all students were in special education programs. Finally, across the Commonwealth, about 7.1 percent of all students were English language learners, although these students were concentrated in the 15 districts in which more than 15 percent of all students were English language learners. In light of these figures, it is likely that no two school divisions face the same cost pressures based on student demographic characteristics.

Given that we want to understand how the allocation of personnel, both allotted and actual, are related to school division size and need, we had to have ways of measuring these factors. Size is relatively easy – division enrollment can be used. In the case of need, we developed a procedure to assign “weights” to students based on three types of need: participation in special education, eligibility for free lunch, and being a student with limited English-proficiency (LEP). Weights are factors (numbers such as .10 or .85) that estimate the added resources to serve students with different needs relative to students with no special needs (who would be counted, or weighted, at 1.00). The ratio of weighted to unweighted students is an indicator of the relative need of each school division. The weighting factors allow APA to compare the relative levels of need in each district.

For example, if a characteristic contained a weight of .25, indicating that 25 percent more resources were required for that characteristic compared to a student with no special need, then a weight would exist totaling 1.25. If a school division had a total of 2,500 students and 40 percent of those students had that characteristic (2,500 X .40 = 1,000) while 60 percent of the students had no special need (2,500 X .60 = 1,500), then the weighted student count for the division would be 2,750 (1,000 X 1.25 = 1,250) + (1,500 X 1.00 = 1,500.) In this case, the relative need of the division would be 1.10 (2,750/2,500), or 10 percent higher than a district containing only students with no special needs or characteristics.

We used three weights in determining the relative need of Virginia's school divisions: (1) an economically disadvantaged student weight of .25; (2) an LEP weight of .40; and (3) a special education weight of 1.0; they are an estimate of the additional resources spent on each type of student. The weights come from research APA has done around the country and have been similarly applied in studies conducted by APA in other states. In this case, as in the other studies, APA is simply creating a convenient measure of need to help the analysis. The weights are applied to the actual student data for each of Virginia's school divisions. The weights are only being used in APA's analysis as a way to examine if the SOQ models take the need of a district into account; they are not meant to be a recommendation of how Virginia should allocate resources. Applying these weights, the range in the ratio of weighted to unweighted students among the school divisions is 1.12 to 1.40.

Using the information provided to APA by VDOE, APA began to analyze the relationships between actual division staffing and staff allocations through the SOQ, and division factors such as size and student need.

Variations in Allotted and Actual Personnel across School Divisions

The figures in Tables 2A and 2B provide some basic statewide information for 23 types of personnel (14 instructional and 9 support categories) in three areas:

1. Personnel actually employed in that category per 1,000 students;
2. Personnel allotted by SOQ ratios per 1,000 students; and
3. The ratio of actual to SOQ allotted figures (actual staffing divided by SOQ allocation).

The basic information provided includes: (1) the statewide average; (2) the standard deviation of the distribution of school divisions; (3) the coefficient of variation; (4) the correlation between numbers of personnel and the size (enrollment) of all school divisions; and (5) the correlation between numbers of personnel and the relative needs of all school divisions. What each of these figures means is explained in further detail below:

1. *The statewide average,* which is the simple average across all school divisions, expressed as personnel per 1,000 students as discussed previously. This figure is not weighted by district enrollment so it cannot be used to estimate statewide costs.

2. *The standard deviation*, which is an indicator of variation. Nearly seventy percent of all data points will be within plus or minus one standard deviation from the mean, with ninety-five percent being within plus or minus two standard deviations. Therefore, a larger standard deviation figure indicates that division figures are more spread out from the mean, while a smaller standard deviation figure means that they are more closely gathered around the mean. However, for the purposes of this study, this figure is not of much use by itself, so instead we use this figure to calculate the coefficient of variation, which is a better indicator of variation because it can be used to compare across SOQs.

3. *The coefficient of variation,* which is the standard deviation divided by the average. This figure indicates the extent to which the figures for divisions differ from one another. Figures above .20 suggest quite a bit of variation because it means that a third of all divisions have figures that might be either more than 20 percent higher than the average or more than 20 percent lower than the average.

4. *Correlation with division size,* which shows if there is a relationship between the numbers of personnel and the size (enrollment) of all school divisions. Figures below .300 are thought of as being a "weak" relationship. It is also worth noting if the correlation is positive or negative. In this case, a positive correlation would indicate that as the size of the division grew, so did the number of personnel they employ per 1,000 students, while a negative figure would indicate that as division size grew, the number of personnel per 1,000 tends to decrease.

5. *Correlation with student need,* which shows if there is a relationship between the numbers of personnel and the relative needs of all school divisions. As mentioned in an earlier section, this relative need factor is the ratio of weighted to unweighted students. Students are assigned a weight based on their special needs (being economically disadvantaged, an English Language Learner, or being in special education) to reflect the additional resources divisions typically employ to meet these student needs. As with the size correlation figures, a relationship below .300 is considered weak, and the sign [+ or -] demonstrates whether the relationship is positive or negative.

To more clearly illustrate how these figures are used, we can use Elementary Teachers, the first personnel category in Table 2A, as an example. There are three rows of information for elementary teachers: (1) the number of elementary teachers that are actually employed in all of the divisions, (2) the number of elementary teachers allocated to divisions based on SOQs, and (3) the ratio of actual teachers to allocated teachers. Looking at the first row, actual elementary teachers employed, the first column of data shows the average number of teachers per 1,000 students, which is 80.62. The second column of data is the standard deviation, which is 12.78. This means that nearly seventy percent of divisions employ between 67.8 (80.62 – 12.78 or one standard deviation) and 93.4 (80.62 + 12.78 or one standard deviation) teachers per 1,000 students, and ninety-five percent employ between 55.1 (80.62 – 15.56 or two standard deviations) and 106.2 (80.62 + 15.56 or two standard deviations) teachers per 1,000 students. The third column of data shows the coefficient of variation, which puts the variation

between division figures in a better perspective. In this case, that figure is .16; while the standard deviation may seem to indicate a wide variation from the mean, the coefficient of variation is actually fairly low, so it is not an area for concern. The final two columns of data show the correlation with division size and with student need. The correlation figure for size is -.199, which indicates a slight negative relationship between division size and number of teachers per 1,000. This is not unusual, since small schools tend to have lower teacher to student ratios than larger schools. However, since this figure is less than +/-.300, it is still a weak relationship. The correlation figure for student need, on the other hand, is above .300 at .331 so it indicates that there is a moderately positive relationship between student need and number of teachers employed, meaning the higher the relative need is in a school district, the more teachers that they employ.

It is worth noting that a few types of personnel account for a large portion of all the personnel actually employed in school divisions. The total number of people actually employed in the 23 types of personnel we examined was 160,648, based on data from the 2007-2008 Annual School Report as provided by the department. Of these, 124,226 were instructional staff and 36,422 were support staff. Among instructional staff, elementary and secondary teachers account for 75.3 percent of all staff actually employed; adding elementary and secondary teacher aides to this teacher total account for 90.5 percent of all instructional staff (so four of the 14 types of instructional personnel represent 90 percent of all instructional staff). Similarly, school-based clerical and technical clerical personnel account for 75.7 percent of all support staff. The fact is that six types of personnel (elementary and secondary teachers and aides plus school-based and technical clerical workers – or six out of 23 types of personnel) account for 87 percent (or about five out of every six) employees.

Table 2A
Instructional Staff per 1,000, Comparison between Actual Staffing and SOQ
Descriptive Statistics

Position	Average	Standard Deviation	Coefficient of Variation	Correlation with Division Size	Correlation with Student Need
Elementary Teachers Actual per 1,000	80.62	12.78	0.16	-0.199	0.331
Elementary Teachers SOQ per 1,000	69.94	7.12	0.10	-0.180	0.188
Elementary Teacher Ratio	*1.16*	*0.18*	*0.16*	*-0.097*	*0.219*
Secondary Teachers Actual per 1,000	88.48	17.18	0.19	-0.120	0.289
Secondary Teachers SOQ per 1,000	76.41	9.61	0.13	-0.226	0.229
Secondary Teacher Ratio	*1.17*	*0.22*	*0.19*	*0.018*	*0.154*
Elementary Teacher Aides Actual per 1000	23.19	8.75	0.38	-0.211	0.041
Elementary Teacher Aides SOQ per 1000	2.63	1.30	0.49	-0.074	0.002
Elementary Teacher Aides Ratio	*10.46*	*7.34*	*0.70*	*-0.114*	*0.023*
Secondary Teacher Aides per 1000 Actual	11.20	6.48	0.58	-0.070	0.069
Secondary Teacher Aides per 1000 SOQ	2.02	1.09	0.54	-0.035	0.136
Secondary Teacher Aides Ratio	*6.71*	*5.98*	*0.89*	*-0.064*	*0.003*
Elementary Guidance Actual per 1,000	2.49	0.87	0.35	-0.049	0.218
Elementary Guidance SOQ per 1,000	1.60	0.21	0.13	-0.030	0.010
Elementary Guidance Ratio	*1.57*	*0.55*	*0.35*	*-0.048*	*0.195*
Secondary Guidance Actual per 1,000	4.11	1.46	0.35	0.129	0.233
Secondary Guidance SOQ per 1,000	3.93	1.18	0.30	-0.023	-0.235
Secondary Guidance Ratio	*1.09*	*0.40*	*0.37*	*0.107*	*0.284*
Elementary Librarian Actual per 1,000	2.18	1.07	0.49	-0.165	0.156
Elementary Librarian SOQ per 1,000	1.70	0.43	0.26	-0.241	0.110
Elementary Librarian Ratio	*1.29*	*0.50*	*0.39*	*-0.055*	*0.120*
Secondary Librarian Actual per 1,000	1.67	0.87	0.52	-0.082	0.153
Secondary Librarian SOQ per 1,000	2.52	1.24	0.49	-0.214	-0.145
Secondary Librarian Ratio	*0.71*	*0.34*	*0.48*	*0.092*	*0.145*
Elementary Principal Actual per 1,000	2.43	0.95	0.39	-0.275	0.216
Elementary Principal SOQ per 1,000	1.70	0.43	0.26	-0.241	0.110
Elementary Principal Ratio	*1.42*	*0.37*	*0.26*	*-0.212*	*0.221*
Secondary Principal Actual per 1,000	1.96	1.23	0.63	-0.280	0.152
Secondary Principal SOQ per 1,000	2.49	2.06	0.83	-0.241	-0.104
Secondary Principal Ratio	*0.85*	*0.30*	*0.36*	*0.025*	*0.234*
Elementary Asst. Principal Actual per 1,000	1.41	0.89	0.64	0.128	0.059
Elementary Asst. Principal SOQ per 1,000	0.14	0.20	1.44	0.230	-0.103
Elementary Asst. Principal Ratio	*6.69*	*4.59*	*0.69*	*0.008*	*0.168*
Secondary Asst. Principal Actual per 1,000	2.61	0.98	0.37	0.049	0.115
Secondary Asst. Principal SOQ per 1,000	1.14	0.76	0.67	0.295	-0.230
Secondary Asst. Principal Ratio	*1.92*	*0.85*	*0.44*	*-0.140*	*0.299*
Elementary Tech Teacher Actual per 1,000	1.09	1.14	1.05	0.070	0.001
Elementary Tech Teacher SOQ per 1,000	1.02	0.06	0.05	0.005	-0.387
Elementary Tech Teacher Ratio	*1.07*	*1.13*	*1.06*	*0.067*	*0.027*
Secondary Tech Teacher Actual per 1,000	1.45	1.69	1.16	0.017	0.045
Secondary Tech Teacher SOQ per 1,000	1.07	0.21	0.19	-0.043	-0.259
Secondary Tech Teacher Ratio	*1.38*	*1.60*	*1.16*	*0.015*	*0.059*

Table 2B
Support Staff per 1,000, Comparison between Actual Staffing and SOQ
Descriptive Statistics

Position	Average	Standard Deviation	Coefficient of Variation	Correlation with Division Size	Correlation with Student Need
Instructional Professional Actual per 1,000	3.02	2.22	0.73	0.013	0.179
Instructional Professional SOQ per 1,000	2.97	0.07	0.02	-0.067	-0.121
Instructional Professional Ratio	*1.02*	*0.75*	*0.74*	*0.015*	*0.181*
General O&M Actual per 1,000	0.29	0.25	0.86	0.017	0.193
General O&M SOQ per 1,000	0.35	0.01	0.02	-0.063	-0.155
General O&M Ratio	*0.85*	*0.73*	*0.86*	*0.018*	*0.191*
Technical Support Actual per 1,000	1.83	1.06	0.58	0.029	0.019
Technical Support SOQ per 1,000	1.53	0.04	0.02	-0.067	-0.123
Technical Support Ratio	*1.20*	*0.70*	*0.58*	*0.031*	*0.023*
School Based Clerical Actual per 1,000	4.88	1.73	0.35	0.108	0.199
School Based Clerical SOQ per 1,000	5.07	0.12	0.02	-0.111	-0.128
School Based Clerical Ratio	*0.96*	*0.34*	*0.36*	*0.116*	*0.203*
Technical Clerical Actual per 1,000	14.26	4.40	0.31	0.106	0.337
Technical Clerical SOQ per 1,000	15.16	0.37	0.02	-0.067	-0.124
Technical Clerical Ratio	*0.94*	*0.29*	*0.31*	*0.110*	*0.341*
Instructional Technical Actual per 1,000	2.62	1.94	0.74	0.041	0.091
Instructional Technical SOQ per 1,000	2.61	0.06	0.02	-0.068	-0.125
Instructional Technical Clerical Ratio	*1.01*	*0.75*	*0.74*	*0.042*	*0.093*
General Administration Actual per 1,000	0.73	0.78	1.07	0.064	0.217
General Administration SOQ per 1,000	0.81	0.02	0.02	-0.071	-0.116
General Administration Ratio	*0.89*	*0.96*	*1.07*	*0.064*	*0.216*
Attendance and Health Administration Actual per 1,000	1.17	0.79	0.67	0.040	0.027
Attendance and Health Administration SOQ per 1,000	1.38	0.03	0.02	-0.067	-0.127
Attendance and Health Administration Ratio	*0.85*	*0.57*	*0.67*	*0.043*	*0.031*
Assistant Superintendent Acutal per 1,000	0.15	0.20	1.32	-0.093	-0.080
Assistant Superintendent SOQ per 1,000	0.24	0.01	0.03	-0.081	-0.102
Assistant Superintendent Ratio	*0.64*	*0.84*	*1.32*	*-0.093*	*-0.080*

Our expectations were that we would find: (1) a difference between the actual number of personnel per 1,000 students and the number of personnel allotted by each SOQ ratio (and that such differences would be such that the ratio of actual-to-allotted personnel would be greater than 1.00; not much variation in the number of personnel per 1,000 students allotted by an SOQ ratio; (2) if there were much variation in the number of personnel per 1,000 students allotted by an SOQ ratio, that variation might be associated with district size and/or district need; and (3) if there were much variation in the actual number of personnel per 1,000 students, it would be related to the needs of school divisions. While we had hoped to examine the relationship between numbers of personnel and student performance, we found it very difficult to create a measure of student performance at the school division level that made sense. The state does not have such a measure and there are at least three ways that one might be created when there is agreement on the objective (including achievement test scores, student attendance, and graduation rates): based on absolute levels of student performance, change in student performance, and comparison of actual to expected performance based on student demographic characteristics.

There are a variety of issues worth noting about the figures shown in Tables 2A and 2B (Table 2A shows data for instructional personnel while Table 2B addresses support personnel). First, in 10 of the 14 types of instructional personnel, the average number of personnel actually employed is at least 10 percent *higher* than the average number of personnel allotted by an SOQ, as shown by the "ratio" row for those types of personnel being greater than 1.10 (shown under the "average" column); that is, for those types of personnel, school divisions tend to employ more people than they earn under the SOQ ratio. This includes the four categories of personnel that account for the vast majority of instructional personnel (as mentioned above). Again, this may be because the Annual School Report captures positions that are funded both within and outside of the SOQ and captures positions that are funded from state, federal, and local sources of funds, whether related to the SOQ or not.

At the same time, in four of the nine support personnel categories, the average number of personnel actually employed is at least 10 percent *lower* than the average number of personnel allotted by an SOQ. This can be seen where the "ratio" row for those types of personnel is less than .90 (shown under the "average" column). This is not the case for the two types of personnel that account for a large portion of all support staff (for which the average number employed is very close to the average number allotted). This suggests that school divisions tend to need more instructional staff than are provided under the SOQ ratios and that they are willing to trade off between support staff and instructional staff.

Second, in nine of the 14 types of instructional personnel categories (Table 2A), there is a high level of variation in the number of personnel per 1,000 students allotted by an SOQ (because the coefficient of variation was greater than .20) while at the same time the correlation between the number of personnel allotted by an SOQ and both school division size and school division need is weak (the correlation is between -.300 and +.300), therefore not explaining the variation that exists. This may be because some of the SOQs are school-based and are specified with "cliffs" under which schools in one size range are eligible to receive one level of personnel while schools in a different size range are eligible to receive a different level of personnel, resulting in dramatically different numbers of personnel per 1,000 students. When considering the coefficient of variation for these nine instructional personnel categories, in four cases the variation in actual personnel per 1,000 students is less than in the variation in the SOQ personnel per 1,000 students (three of which are administrator positions). Then, when looking at the correlation with student need, there are five instances where the correlation between actual personnel per 1,000 students and student need switches from being negative to being positive (although still weak) in comparison to the SOQ personnel per 1,000 students.

Third, the numbers of all types of support staff allotted under the SOQ ratios are very similar across school divisions (with coefficients of variation at or under .03), which reflects the fact that most of those SOQs are defined in terms of personnel per 1,000 students. Unfortunately, there is almost no relationship between numbers of support staff allotted under the SOQ ratios and the needs of school districts (in fact, while the relationships are weak, they are all negative); but the numbers of support staff actually employed are positively related to district needs (even if the relationships are still weak).

The figures in Tables 3 and 4 illustrate the relationships between numbers of personnel and school division size (Table 3) and need (Table 4) for the six instructional and support types of personnel that,

taken together, represent over 90 percent of all personnel actually employed by school divisions. To illustrate these relationships, divisions are divided into five groups, or quintiles, so that differences in the averages of these groups could be examined. We use this procedure to see whether patterns exist even though correlations might be low. In Table 4, that meant that divisions were divided into quintiles by their size, with the 1st quintile being the 20 percent of divisions that are the smallest, up to the fifth quintile, which is the 20 percent of divisions that are the largest. The divisions were then similarly divided into quintiles based upon their student need, with the 1st quintile being the divisions that had the lowest need, and the 5th quintile being the divisions with the highest need (need being the weighted to unweighted student ratio described previously). Divisions could just have easily been divided into four groups, or ten groups; in this case, APA chose quintiles because it split the divisions into enough different groups to allow for meaningful comparison without making patterns difficult to see by having too many groups. This is standard practice undertaken in other studies.

Table 3
Instructional and Support Staff per 1,000, Comparison between Actual Staffing and SOQ
By Division Size Quintiles

	Division Size				
	1st Quintile	2nd Quintile	3rd Quintile	4th Quintile	5th Quintile
Position	1,682 or Less	1,683-2,627	2,628-4,586	4,586-10,598	Greater than 10,598
Elementary Teachers Actual per 1,000	89.57	79.49	81.23	78.86	74.06
Elementary Teachers SOQ per 1,000	76.17	69.89	69.26	67.70	66.79
Elementary Teacher Ratio	*1.19*	*1.14*	*1.18*	*1.17*	*1.11*
Secondary Teachers Actual per 1,000	93.83	89.01	87.00	85.29	87.55
Secondary Teachers SOQ per 1,000	83.74	75.65	75.69	75.69	71.60
Secondary Teacher Ratio	*1.13*	*1.18*	*1.15*	*1.14*	*1.22*
Elementary Teacher Aides per 1000 Actual	26.15	23.96	24.44	22.17	19.25
Elementary Teacher Aides per 1000 SOQ	3.02	2.45	2.69	2.47	2.55
Elementary Teacher Aides Ratio	*12.81*	*11.76*	*10.14*	*9.82*	*8.55*
Secondary Teacher Aides per 1000 Actual	13.33	11.71	11.06	10.35	11.53
Secondary Teacher Aides per 1000 SOQ	2.53	2.07	2.01	1.99	1.94
Secondary Teacher Aides Ratio	*6.08*	*7.37*	*6.91*	*7.24*	*6.87*
School Based Clerical Actual per 1,000	4.82	5.54	4.23	4.96	4.83
School Based Clerical SOQ per 1,000	5.06	5.04	5.12	5.06	5.07
School Based Clerical Ratio	*0.95*	*1.10*	*0.83*	*0.98*	*0.95*
Technical Clerical Actual per 1,000	15.34	12.88	14.05	13.90	15.19
Technical Clerical SOQ per 1,000	15.32	15.09	15.10	15.18	15.12
Technical Clerical Ratio	*1.01*	*0.85*	*0.93*	*0.92*	*1.00*

Table 4
Instructional and Support Staff per 1,000, Comparison between Actual Staffing and SOQ
By Student Need Quintiles

Position	Student Need (Weighted to Unweighted Student Ratio)				
	1st Quintile	2nd Quintile	3rd Quintile	4th Quintile	5th Quintile
	1.200 or Less	1.201-1.240	1.241-1.270	1.271-1.304	Greater than 1.304
Elementary Teachers Actual per 1,000	74.53	76.13	87.80	81.75	85.46
Elementary Teachers SOQ per 1,000	67.66	69.39	71.40	69.55	72.21
Elementary Teacher Ratio	*1.10*	*1.10*	*1.24*	*1.18*	*1.19*
Secondary Teachers Actual per 1,000	85.35	84.59	87.79	87.78	97.77
Secondary Teachers SOQ per 1,000	71.80	76.78	79.81	76.03	78.21
Secondary Teacher Ratio	*1.19*	*1.11*	*1.10*	*1.16*	*1.26*
Elementary Teacher Aides per 1000 Actual	21.77	23.01	26.35	22.20	22.94
Elementary Teacher Aides per 1000 SOQ	2.53	3.09	2.29	2.14	2.92
Elementary Teacher Aides Ratio	*10.67*	*9.10*	*11.63*	*13.67*	*8.79*
Secondary Teacher Aides per 1000 Actual	10.41	12.33	12.54	10.27	11.94
Secondary Teacher Aides per 1000 SOQ	1.90	2.02	2.16	1.99	2.43
Secondary Teacher Aides Ratio	*6.50*	*7.30*	*8.23*	*6.77*	*5.91*
School Based Clerical Actual per 1,000	4.81	4.42	5.46	4.86	4.99
School Based Clerical SOQ per 1,000	5.06	5.06	5.06	5.05	5.12
School Based Clerical Ratio	*0.95*	*0.88*	*1.08*	*0.96*	*0.98*
Technical Clerical Actual per 1,000	12.45	13.38	15.21	13.17	17.39
Technical Clerical SOQ per 1,000	15.25	15.14	15.13	15.10	15.17
Technical Clerical Ratio	*0.82*	*0.88*	*1.01*	*0.87*	*1.15*

Tables 3 and 4 show the relationships between staffing and division size and need by examining how the average number of employees per 1,000 students (actually employed, SOQ-allotted, and the ratio of actually employed to SOQ-allotted) changes across quintiles of school divisions based on size and need (quintiles are ranked from low to high moving from left to right). The Elementary Teachers personnel category can again be used as an example to demonstrate what is being shown in Tables 3 and 4. Looking at Table 3 and the line for Elementary Teachers allocated by SOQ, it can be seen that teacher allocations vary somewhat by size. For the 1st quintile, which is made up of districts that have 1,682 students or less, the average SOQ allocation is 76.17 teachers per 1,000. This average decreases as division size increases, going from 69.89 in the 2nd quintile, to 69.26 in the 3rd, 67.70 in the 4th, and 66.79 in the 5th quintile.

In regard to Table 3, it is clear that SOQ-allotted teachers are sensitive to division enrollment. This is evidenced by the fact that the number of teachers per 1,000 declines as the size of the divisions grow. This relationship also exists for secondary teacher aides per the SOQ. The relationship between division

size and actual number of elementary teachers is somewhat stronger than is true for SOQ-allotted elementary teachers although that is not the case for secondary teachers. Essentially, numbers of support staff (of the two types shown) are unrelated to division size when looking at the SOQ allocations which remain consistent across quintiles and there is no discernable pattern when looking at actual support staffing. Looking at Table 4, while there is a small relationship between SOQ-allotted elementary and secondary teachers and division needs (that is, the highest need divisions [those in the fifth quintile] earn more teachers than the lowest need divisions [those in the first quintile] but the pattern does not hold true for divisions with moderate levels of need [the three middle quintiles]). The relationship is stronger for actual teachers employed, which, along with the fact that the ratios of actual to SOQ-allotted teachers are higher in the fifth quintile than they are in the first quintile, suggests that school division actual staffing is more sensitive to need than the SOQ ratios are. Again, this may not be unexpected because of the actual staffing as shown in this study is derived from the Annual School Report and covers programs that can fall outside of the SOQ.

Ideas for the Virginia Board of Education's Consideration

On the basis of APA's analyses, a few key points about the Standards of Quality can be highlighted for the Board's consideration.

1. School divisions employ more personnel than the SOQ ratios provide. It appears that the majority of Virginia school divisions employ personnel at a higher level than currently prescribed in the SOQ, validating the concept that the SOQ is intended to be a minimum education foundation program.

    - It is important to remember that the SOQ ratios do not include all the personnel a district would be expected to employ. An example would be elementary aides where the SOQ ratio only includes aides for kindergarten and special education. Most districts employ aides for other purposes. This may be why the SOQ figure is much lower than the actual figure for this category of personnel.

    - The majority of the personnel categories with higher personnel were in the instructional categories. For the time period examined, the average numbers of personnel actually employed were higher than the SOQ ratios. Given that the Annual School Report captures all positions employed within school division not just those related to the SOQ, this is not unexpected.

    - The average number of elementary teachers is 16 percent above the SOQ ratio. Elementary teachers make up 34 percent of all personnel examined.

- The average number of secondary teachers is 17 percent above the SOQ ratio. Secondary teachers make up 24 percent of all personnel examined.

- The numbers of elementary and secondary teachers actually employed by districts appear to be related to district needs based on examining quintiles of school divisions organized by need.

2. It appears that school divisions are using their support category revenue to employ more instructional personnel. This strategy is permissible because prevailing support dollars may be used for instructional needs.

3. One personnel category that may need to be examined is nurses assuming that a shift in funding formulas does not detrimentally affect school divisions.

    - The states with which we talked mentioned nurses as a personnel group for which they are considering setting a new standard or revising an existing one.

    - APA believes that a ratio of 750 students per nurse might be appropriate. Currently, school divisions in Virginia provide nursing services but there is no mandated staffing standard.

4. All SOQ ratios could be expressed in personnel per 1,000 student terms, assuming that such a shift does not detrimentally affect funding or staffing and class sizes at the school and classroom levels. Some factors to consider are:

    - Currently the state uses both student personnel ratios and personnel per 1,000 terms to express SOQ ratios. Using one approach will simplify the SOQ process.

    - Such an approach would avoid the “cliffs” built into some current SOQ ratios. These cliffs are based on break points related to school size that make assumptions about how schools are staffed that may not be true.

    - In APA’s examination of the data the instructional categories that use this cliff style funding had far more variation in personnel per 1,000 students than other categories.

    - The cliffs mean a school with a difference of just one student can be funded very differently. For example, a school with one more student than another school earns an additional half-time principal for that student.

References

Achilles, C. (1999). *Let's Put Kids First, Finally: Getting Class Size Right.* Thousand Oaks, CA: Corwin Press.

Achilles, C., Finn, J., Gerber, S., & Boyd-Zaharias, J. (2000). It's Time to Drop the Other Shoe: The Evidence on Teacher Aides. *Annual Meeting of the Mid-South Educational Research Association.* Bowling Green, KY.

Baker, S., & Gerler, E. J. (2001). Counseling in Schools. In D. Locke, J. Myers, & E. Herr, *The Handbook of Counseling.* Thousand Oaks, CA: Sage Publications.

Barkan, S., Pfohman, R., & Bolan, M. (2004). *Evaluation of School-Based Health Center Clinic and School Nurse Services in Seattle, Washington, September 2000-December 2003.* Seattle, WA: Seattle & King County Public Health.

Baumbach, D. (2002). *Making the Grade: The Status of School Library Media Centers in the Sunshine State and How They Contribute to Student Achievement.* San Jose, CA: Hi Willow.

Baxter, S., & Smalley, A. (2003). *Check it Out! The Results of the School Library Media Program Census.* St. Paul, MN: Metronet.

Beardan, L., Spencer, W., & Moracco, J. (1989). A Study of High School Dropouts. *The School Counselor, 40*, 293-300.

Becker, H. (1994). How Exemplary Computer-Using Teachers Differ from Other Teachers: Implications for Realizing the Potential of Computers in Schools. *Journal of Research on Computing in Education, 26(3),* 291-321.

Beglau, M. (2005). Can Technology Narrow the Black-White Achievement Gap? *T.H.E. Journal, 32(12),* 13-17.

Borders, L., & Drury, S. (1992). Comprehensive School Counseling Programs: A Review for Policymakers and Practitioners. *Journal of Counseling and Development, 70*, 487-498.

Bradley, B. (1998). Establishing a Research Agenda for School Nursing. *Journal of School Nursing, 14*, 4-13.

Carrell, S., & Carell, S. (2006). The Student-to-Counselor Ratio: Does it Matter? *Contributions to Economic Analysis & Policy, 5(1).*

Chase, C., Mueller, D., & Walden, J. (1986). *PRIME TIME: Its Impact on Instruction and Achievement.* Indianapolis, IN: Indiana Department of Education.

Cohen, G., Miller, C., Stonehill, R., & Geddes, C. (2000). *The Class Size Reduction Program: Boosting Student Achievement in Schools Across the Nation.* Washington, DC: U.S. Department of Education.

Dexter, S., Seashore, K., & Anderson, R. (2003). Leading the Learning: Expertise and Technology Integration Support Staff. *Annual Meeting of the American Educational Research Association.* Chicago, IL.

Egelson, P., Harman, P., Hood, A., & Achilles, C. (2002). *How Class Size Makes a Difference.* Greensboro, NC: SERVE.

Finn, J., Fox, J., McClellan, M., Achilles, C., & Boyd-Zaharias, J. (2006). Small Classes in the Early Grades and Course Taking in High School. *Journal of Education Policy and Leadership, 1(1).*

Finn, J., Gerber, S., Farber, S., & Achilles, C. (2000). Teacher Aides: An Alternative to Small Classes? In M. Wang, & J. Finn, *How Small Classes Help Teachers Do Their Best* (pp. 131-174). Philadelphia, PA: Temple University Center for Research in Human Development and Education.

Fryer, G., & Igoe, J. (1995). A Relationship Between Availability of School Nurses and Child Well-Being. *Journal of School Nursing*, 12-17.

Gerber, S., Finn, J., Achilles, C., & Boyd-Zaharias, J. (2001). Teacher Aides and Students' Academic Achievement. *Educational Evaluation and Policy Analysis, 23(2),* 123-143.

Gerler, E. J. (1985). Elementary School Counseling Research and the Classroom Learning Environment. *Elementary School Guidance and Counseling, 20(1),* 39-48.

Glass, G., & Smith, M. (1979). Meta-Analysis of Research on Class Size and Achievement. *Educational Evaluation and Policy Analysis, 1(1),* 2-16.

Grissmer, D. (1999). Class Size: Issues and New Findings. *Educational Evaluation and Policy Analysis, 21(2).*

Guttu, M., Engelke, M., & Swanson, M. (2004). Does the Nurse-to-Student Ratio Make a Difference? *Journal of School Health, 74(1),* 6-9.

Haycock, K. (1995). Research in Teacher-Librarianship and the Institutionalization of Change. *SLMQ, 23(4).*

Igoe, J. (2002). *An Evaluation of the Missouri Department of Health School-Age Children's Health Services Program.* Jefferson City, MO: Missouri Department of Health and Senior Services, Bureau of Family Health.

Kaufman, P., Kiein, S., & Frase, M. (1999). *Dropout Rates in the United States, 1997 Statistical Analysis Report.* Washington, DC: U.S. Department of Education and MPR Associates Inc.

Keith, T., Keith, T., Young, D., & Fortune, J. (1993). Investigating the Influences of Class Size and Class Mix on Special Education Student Outcomes: Phase One Results. *Annual Meeting of the Eastern Educational Research Association.* Clearwater, FL.

Lance, K. (1994). The Impact of Library Media Centers on Academic Achievement. *SLMQ, 22(3).*

Lapsley, D., Daytner, K., Kelly, K., & Maxwell, S. (2002). Teacher Aides, Class Size and Academic Achievement: A Preliminary Evaluation of Indiana's Prime Time. *Annual Meeting of the American Educational Research Association.* New Orleans, LA.

Lee, R. (1993). Effects of Classroom Guidance on Student Achievement. *Elementary School Guidance and Counseling, 27*, 163-171.

Litrell, J., Malia, J., & Vanderwood, M. (1995). Single-Session Brief in a High School. *Journal of Counseling and Development, 73*, 451-458.

MAGI Educational Services. (1995). *The New York State Special Education Class Size Research Study.* Rye, NY: Author.

Mau, W., Hitchcock, R., & Calvert, C. (1998). High School Students' Career Plans: The Influence of Others' Expectations. *Professional School Counseling*, 161-166.

Maughan, E. (2003). The Impact of School Nursing on Student Performance: A Research Synthesis. *The Journal of School Nursing, 19(3),* 163-171.

McCrea, L. (1996). *A Review of the Literature: Special Education and Class Size.* Lansing, MI: Michigan Board of Education.

Miller, K. (2002). *Resource Allocation: Targeting Funding for Maximum Impact.* Aurora, CO: Mid-Continent Research for Education and Learning.

North Central Regional Educational Lab. (2005). *Critical Issue: Using Technology to Improve Student Achievement.* Washington, DC: U.S. Department of Education, Institute of Education Sciences.

Northwest Association of Accredited Schools. (2008). *Accreditation Standards for the Accreditation of All Categories of Schools.* Boise, ID: Author.

Oberg, R. (1993). *Effects of ESL Time and Class Size on the Achievement of LEP Students.* Huntsville, TX: Sam Houston State University.

Odden, A., Picus, L., Goetz, M., Fermanich, M., Seder, R., Glenn, W., et al. (2005). *An Evidence-Based Approach to Recalibrating Wyoming's Block Grant School Funding Formula.* Los Angeles, CA: Lawrence O.Picus and Associates.

Perez, M., Anand, P., Speroni, C., Parrish, T., Esra, P., Socias, M., et al. (2007). *Successful California Schools in the Context of Educational Adequacy.* Stanford, CA: American Institutes of Research.

Prout, H., & DeMartino, R. (1986). A Meta-Analysis of School-Based Studies of Psychotherapy. *Journal of School Psychology, 24(3),* 285-292.

Robinson, G. (1990). Synthesis of Research on the Effects of Class Size. *Educational Leadership, 47(7).*

Schlossberg, S., Morris, J., & Lieberman, M. (2001). The Effects of a Counselor-Led Guidance Intervention on Students' Behaviors and Attitudes. *Professional School Counseling*, 156-164.

Smalley, T. (2004). College Success: High School Librarians Make the Difference. *The Journal of Academic Librarianship, 30(3),* 193-198.

Smith, E. (2001). *Texas School Libraries: Standards, Resources, Services, and Students' Performance.* Austin, TX: Texas State Library and Archives Commission.

St. Clair, K. (1989). Middle School Counseling Research: A Resource for School Counselors. *Elementary School Guidance and Counseling, 23(3),* 219-226.

Stringfield, S., Ross, S., & Smith, L. (1996). *Bold Plans for School Restructuring: The New American School Design.* Mahwah, NJ: Lawrence Erlbaum.

Texas Education Agency and Texas A&M University, Corpus Christi. (2000). *The Texas Successful Schools Study: Quality Education for Limited English Proficient Students.* Austin, TX: Author.

The Council for Exceptional Children. (1989). *The Effects of Student-Teacher Ratios on Student Performance in Special Education. Research & Resources on Special Education, Abstract 22.* Reston, VA: ERIC Clearinghouse on Disabilities and Gifted Education.

Thurlow, M., Ysseldyke, J., Wotruba, J., & Algozzine, B. (1993). Instruction in Special Education Classrooms Under Varying Student-Teacher Ratios. *The Elementary School Journal, 93(3).*

U.S. Department of Health and Human Services. (2000). *Healthy People 2010. Washington, DC: Author.*

Verduyn, C., Lord, W., & Forrest, G. (1990). Social Skills Training in Schools: An Evaluation Study. *Journal of Adolescence, 13*, 3-16.

Watts, V., & Thomas, B. (1997). Proving that Counselors do Count: The Counseling Accountability. *Georgia School Counselors Association Journal, 1(4),* 1-3.

Wenglinsky, H. (2005). Technology and Achievement: The Bottom Line. *Educational Leadership, 63(4),* 29-32.

Whiston, S., & Sexton, T. (1998). A Review of School Counseling Outcome Research: Implications for Practice. *Journal of Counseling & Development, 76*.

Word, E., Johnston, J., Bain, H., Fulton, D., Boyd-Zaharias, J., Lintz, M., et al. (1990). *Student/Teacher Achievement Ratio (STAR): Tennessee's K-3 Class-Size Study.* Nashville, TN: Tennessee State Department of Education.

Appendix C: Chart of Possible Action Items and Issues for Further Action

Standards of Quality (SOQ) Review and Options for Discussion – 2009 Study
DRAFT - SEPTEMBER 17, 2009

POSSIBLE ACTION ITEMS

The considerations below are intended to maintain quality standards for public education, recognizing when revenues are limited divisions will need greater flexibility in allocating funds to meet the specific needs of diverse student populations. The options for consideration also pull into the SOQ certain educational programs that are essential to a "quality education" and in the Appropriation Act only. This action will enhance the SOQ and provide greater transparency in the allocation of public funds.

SOQ Issues for Examination	Possible Action Item	Background Information and Next Steps
2008 Flexibility Options – Incorporate the Board's recommendations on data coordinators, reading specialists, mathematics specialists, and English Language Learner teachers from 2008 and funded in the Appropriation Act into the SOQ. The SOQ survey collects information on the use of specialists for reading, mathematics, and English language learners (ELL).	Put language currently in the Appropriation Act into Standard 2. Currently, The flexibility options cover: 1) data coordinators and instructional technology resource teachers (ITRTs); 2) reading specialists and the Early Intervention Reading Intervention Initiative (EIRI) funds; 3) mathematics specialists and the Algebra Readiness Initiative (ARI) funds; 4) English Language Learner (ELL) teachers and SOQ prevention, intervention, and remediation funds.	The addition of the flexibility language would permanently establish the importance of these positions in state law and provide a long-term flexibility option for school divisions. A common theme in the SOQ survey data is the need for local flexibility. **Next Steps:** Add flexibility language currently in the Appropriation Act in the *Code of Virginia* in Standard 2 as this will ensure that school divisions continue to have flexibility to spend funds according to the area of greatest need. Over 96 percent of school divisions responding to the SOQ survey indicated that reading specialists will be employed for the 2009-2010 school year.

SOQ Issues for Examination	Possible Action Item	Background Information and Next Steps
Movement of Other Programs into the SOQ – The issue of moving programs such as the Early Intervention Reading Initiative (EIRI), the Algebra Readiness Initiative (ARI), the Individual Student Alternative Education Plan (ISAEP), and possibly other programs into the SOQ needs to be examined.	Move EIRI and ARI from Lottery funded accounts into the SOQ. **Other Issues for Consideration:** 1) Should the EIRI and ARI program requirements be set out in the SOQ as separate standards, as is currently done for ELL? 2) Should other programs outside of the SOQ, such as the ISAEP program, be moved within the SOQ?	The EIRI and ARI programs directly support SOQ efforts in the areas of reading and mathematics. Moving these programs into the SOQ further strengthens the foundation program for K-12 education. This action reduces administrative burden on school divisions because there would no longer be a certification process related to certain accounts outside of the SOQ. This action would convert programs that are now optional but carrying almost a 100 percent school division participation rate to SOQ entitlements. Note: This option would change the funding mix between general fund and Lottery accounts. Required local effort for school divisions needs to be considered as well. **Next Steps:** Add EIRI and ARI program requirements and funding to Standard 1. Preliminary estimates of the impact on SOQ funding will need to be calculated as well as the funding mix between the General Fund and the Lottery Proceeds Fund.
Assistant Principal – Provide flexibility in assigning "school leaders" to individual buildings. Current staffing ratio:	Provide school divisions the flexibility to deploy assistant principals to the schools with the greatest needs, so long as they employ a sufficient number of assistant principals divisionwide to meet the total	This option would give additional flexibility to local school divisions in how personnel are assigned but would not change the current funding standard for assistant principals. This option would

SOQ Issues for Examination	Possible Action Item	Background Information and Next Steps
– Assistant principals are funded in the following manner: 1) in elementary schools - one half-time at 600 students, one full-time at 900 students; 2) in middle schools - one full-time for each 600 students; 3) in high school schools - one full-time for each 600 students.	number required in the current SOQ staffing requirement.	ensure that assistant principal staffing could be targeted according to need. **Next Steps:** Draft language in Standard 2 that would permit flexibility but not affect the existing staffing standard for assistant principals. This would be another option for allocation, like those related to reading specialists and mathematics specialists.
Basic Operation Cost (58:1,000 ratio) – The language in the Appropriation Act related to this standard (see attachment) could become part of Standard 2 in the *Code*, with the positions related to gifted, career and technical education (CTE), and special education set out as separate standards.	Adapt Appropriation Act language to Standard 2.	Putting this language in Standard 2 would clarify this arrangement and tie basic standards directly back to the *Code of Virginia* and house all SOQ items in one place in the law. It would also clearly delineate within the SOQ the minimum foundation program for K-12 education. **Next Steps:** Insert Appropriation Act language into Standard 2 and make any needed modifications.

SOQ Issues for Examination	Possible Action Item	Background Information and Next Steps
Administrative Support Categories – Should the current positions within the administrative support category be further defined and categorized in the SOQ. Positions affected would include administrative personnel, attendance and health, pupil transportation, operation and maintenance, facilities, technology, and school-based support positions.	The types of support positions could be set out in the SOQ. Furthermore, the Standard 2 could be modified to state that funding provided for support positions can be used to support instructional services. Define the categories of personnel who make up "support services," specify how those positions are funded, and require transparency in the use of funds by mandating divisions publicly report the state and local amounts budgeted and expended for each category. Permit school divisions to use funds for support services to provide additional instructional services and include instructional services as a separate category to be reported publicly.	Reporting the types and funding for each administrative position makes the SOQ clearer and easier to understand. Language in the SOQ providing flexibility for school divisions to use support funding for instruction would memorialize current practice. **Next Steps:** Insert draft language into Standard 2 that clarifies categories of administrative support services, specifies how these positions are funded and requires public reporting of funds budgeted and expended for each category. Insert flexibility language into Standard 2.

SOQ Issues for Examination	Possible Action Item	Background Information and Next Steps
Special Education – The staffing ratios used for funding special education are referenced in the Appropriation Act and outlined in regulations.	Insert special education ratios in the SOQ so that the standards are formally recognized in the *Code*.	Currently, staffing ratios for special education exist in regulations and are funded in the SOQ because of language in the Appropriation Act. Including the staffing standards in Standard 2 would clarify this arrangement and tie special education staffing directly back to the SOQ. **Next Steps:** Insert staffing ratios in the Standard 2.
Career and Technical Education (CTE) Staffing – The Board's CTE regulations include staffing ratios, but they do not appear in the SOQ.	Move the current CTE staffing ratios into the SOQ.	Currently, staffing ratios for CTE exist in regulations and are funded in the SOQ because of language in the Appropriation Act. **Next Steps:** Insert staffing ratios in the Standard 2.

Standards of Quality (SOQ) Review and Options for Discussion – 2009 Study
DRAFT - SEPTEMBER 17, 2009

POTENTIAL POLICY DIRECTIVES FOR FURTHER ACTION IN 2010

The considerations below are intended to maintain quality standards for public education, recognizing when revenues are limited divisions will need greater flexibility in allocating funds to meet the specific needs of diverse student populations. The options for consideration also pull into the SOQ certain educational programs that are essential to a "quality education" and in the Appropriation Act only. This action will enhance the SOQ and provide greater transparency in the allocation of public funds. These considerations also suggest key issues where the Board may want to authorize further study, with a report next year pending the availability of resources.

SOQ Issues for Examination	Issue for Further Action in 2010	Background Information and Next Steps
Principal/Assistant Principal – Create staffing ratios to give superintendents flexibility in assigning "school leaders" to individual buildings given a total divisionwide allocation for school leaders (principals and assistant principals). The staffing ratio would take into account the goal of having a principal assigned to each building and additional assistants for schools with the greatest need. Current staffing ratios: – **Principals** are funded in the following manner: 1) in elementary schools - one half-time to 299 students, one full-time at 300 students; 2) in middle schools - one full-time, to be employed on a 12-month basis; 3) in high schools - one full-time, to be employed on a 12-month basis **Assistant principals** are funded in the	Define a new funding formula that addresses the Board's school leadership priorities of requiring a principal in every school and increasing the number of assistant principals in schools with the greatest need.	Converting from a specific formula for principals and assistant principals to a "school leadership" umbrella would give additional flexibility to local school divisions in how personnel are assigned. This option would provide additional funding for elementary principals and assignments for assistant principals could be targeted according to need. The standard needs to be written in such a manner that small school divisions do not encounter compliance issues. Because this item involves a greater level of funding for school leaders in school divisions, it needs to be addressed in 2010 in conjunction with other staffing issues noted below.

SOQ Issues for Examination	Issue for Further Action in 2010	Background Information and Next Steps
following manner: 1) in elementary schools - one half-time at 600 students, one full-time at 900 students; 2) in middle schools - one full-time for each 600 students; 3) in high school schools - one full-time for each 600 students.		
Special Education – As response to intervention (RTI) is effectively implemented, more students are mainstreamed reducing a division's special education funding. The practice of mainstreaming creates a perverse funding incentive for school divisions and needs to be examined since effective RTI requires additional instructional support, such as that provided by reading and mathematics specialists. Are there any funding options available that could supplement school divisions so that dollars are not being lost due to the unintended funding consequences of RTI use? – The SOQ contains standards that are based on certain student populations, such as English language learners (ELL) but does not reference specific standards for students with disabilities.	Create a funding mechanism that would supplement the use of RTI by providing additional instructional support to help children receiving RTI continue to meet student achievement goals. Funds lost due to students being mainstreamed could be made available to divisions in a special "hold harmless" account to support additional instructional staff such as reading and mathematics specialists. To create this funding mechanism, further study is needed. The full effect of educating students with disabilities in the mainstream classroom coupled with the trends in the special education child count resulting from this intervention strategy needs further examination.	The Board has heard comments from school divisions that the use of RTI has the unintended consequence of actually lowering state funding for special education services because more students are being educated in the mainstream classroom. Funding could be provided to offset this unintended consequence and to provide resources for more instructional tools in those classrooms where RTI is being used. Further study is needed to determine how such funding should be allocated.

SOQ Issues for Examination	Issue for Further Action in 2010	Background Information and Next Steps
Administrative Support Categories – Should the current positions within the administrative support category be grouped into categories and possibly streamlined or divided amongst ratio-based funding and existing funding methodologies? The intent is to maintain quality support services while increasing emphasis on instructional support services.	The feasibility of establishing ratios for all or some categories of support positions needs further study as does the establishment of a methodology by which support costs are funded.	A study of this issue could result in the establishment of a standard that would staff specific support positions in line with how instructional staffing standards are presented. The standard needs to be written in such a manner that small school divisions do not encounter compliance issues. This is an issue that needs further study.
CTE Staffing Study – The Board's CTE regulations and staffing ratios need to be updated. Before this takes place, a study may be needed to examine class size ratios.	With the establishment of the technical diplomas in the SOQ and increased emphasis on high-tech industry certification programs, the examination of these regulations is timely. Furthermore, the proliferation of STEM academies, changes to the Perkins Act, the addition of economics and personal finance as a graduation requirement, and trends in technology further add to the justification that an independent study be undertaken.	A study of this issue will ensure that any changes to the staff ratios reflect the needs for school divisions and those of industry. This is an issue that needs further study.

SOQ Issues for Examination	Issue for Further Action in 2010	Background Information and Next Steps
Alternative Staffing Approaches – This issue examines the feasibility of converting each major category of the "support services" positions into ratios (for example, a certain number of positions per 1,000 students). Also, the feasibility of establishing ratios based on per-pupil weights to provide school divisions with additional instructional resources to address identified needs is an issue for further examination.	This analysis could include ratios for assistant principals, school counselors, and library-media specialists that would reduce funding "cliffs." It could also include assigning weights for students who may be at-risk and require additional support, including special education services, services to English language learners, and services to disadvantaged students.	A study of this issue will ensure that the staffing needs related to specific student populations are examined in accordance with all school division personnel needs. This is an issue that needs further study.
Technology Standard Study – The technology support standard in the SOQ (one position per 1,000 students) was first funded by the 2004 General Assembly.	The feasibility of updating technology staffing ratios needs to be examined, taking into consideration the increased role of technology in instruction, assessment, and operations since staffing standards were first established in the SOQ.	A study should take into account the technology support positions that are being funded via the administrative support funds. The establishment of the STEM academies, the General Assembly interest in electronic textbooks and instructional materials, and general trends in technology also need to be considered.

Appendix D: Proposed Legislation

Amending the Standards of Quality (SOQ)

Code of Virginia – Standards of Quality

§ 22.1-253.13:1. Standard 1. Instructional programs supporting the Standards of Learning and other educational objectives.

A. The fundamental goal of the public schools of this Commonwealth must be to enable each student to develop the skills that are necessary for success in school, preparation for life, and reaching their full potential. The General Assembly and the Board of Education fund that the quality of education is dependent upon the provision of (i) the appropriate working environment, benefits, and salaries necessary to ensure the availability of high-quality instructional personnel; (ii) the appropriate learning environment designed to promote student achievement; (iii) quality instruction that enables each student to become a productive and educated citizen of Virginia and the United States of America; and (iv) the adequate commitment of other resources. In keeping with this goal, the General Assembly shall provide for the support of public education as set forth in Article VIII, Section 1 of the Constitution of Virginia.

B. The Board of Education shall establish educational objectives known as the Standards of Learning, which shall form the core of Virginia's educational program, and other educational objectives, which together are designed to ensure the development of the skills that are necessary for success in school and for preparation for life in the years beyond. At a minimum, the Board shall establish Standards of Learning for English, mathematics, science, and history and social science. The Standards of Learning shall not be construed to be regulations as defined in § 2.2-4001.

The Board shall seek to ensure that the Standards of Learning are consistent with a high-quality foundation educational program. The Standards of Learning shall include, but not be limited to, the basic skills of communication (listening, speaking, reading, and writing); computation and critical reasoning including problem solving and decision making; proficiency in the use of computers and related technology; and the skills to manage personal finances and to make sound financial decisions.

The English Standards of Learning for reading in kindergarten through grade three shall be based on components of effective reading instruction, to include, at a minimum, phonemic awareness, phonics, fluency, vocabulary development, and text comprehension.

The Standards of Learning in all subject areas shall be subject to regular review and revision to maintain rigor and to reflect a balance between content knowledge and the application of knowledge in preparation for eventual employment and lifelong learning. The Board of Education shall establish a regular schedule, in a manner it deems appropriate, for the review, and revision as may be necessary, of the Standards of Learning in all subject areas. Such review of each subject area shall occur at least once

every seven years. Nothing in this section shall be construed to prohibit the Board from conducting such review and revision on a more frequent basis.

To provide appropriate opportunity for input from the general public, teachers, and local school boards, the Board of Education shall conduct public hearings prior to establishing revised Standards of Learning. Thirty days prior to conducting such hearings, the Board shall give notice of the date, time, and place of the hearings to all local school boards and any other persons requesting to be notified of the hearings and publish notice of its intention to revise the Standards of Learning in the Virginia Register of Regulations. Interested parties shall be given reasonable opportunity to be heard and present information prior to final adoption of any revisions of the Standards of Learning.

In addition, the Department of Education shall make available and maintain a website, either separately or through an existing website utilized by the Department of Education, enabling public elementary, middle, and high school educators to submit recommendations for improvements relating to the Standards of Learning, when under review by the Board according to its established schedule, and related assessments required by the Standards of Quality pursuant to this chapter. Such website shall facilitate the submission of recommendations by educators.

School boards shall implement the Standards of Learning or objectives specifically designed for their school divisions that are equivalent to or exceed the Board's requirements. Students shall be expected to achieve the educational objectives established by the school division at appropriate age or grade levels. The curriculum adopted by the local school division shall be aligned to the Standards of Learning.

The Board of Education shall include in the Standards of Learning for history and social science the study of contributions to society of diverse people. For the purposes of this subsection, "diverse" shall include consideration of disability, ethnicity, race, and gender.

With such funds as are made available for this purpose, the Board shall regularly review and revise the competencies for career and technical education programs to require the full integration of English, mathematics, science, and history and social science Standards of Learning. Career and technical education programs shall be aligned with industry and professional standard certifications, where they exist.

C. Local school boards shall develop and implement a program of instruction for grades K through 12 that is aligned to the Standards of Learning and meets or exceeds the requirements of the Board of Education. The program of instruction shall emphasize reading, writing, speaking, mathematical concepts and computations, proficiency in the use of computers and related technology, and scientific concepts and processes; essential skills and concepts of citizenship, including knowledge of Virginia history and world and United States history, economics, government, foreign languages, international cultures, health and physical education, environmental issues and geography necessary for responsible participation in American society and in the international community; fine arts, which may include, but need not be limited to, music and art, and practical arts; knowledge and skills needed to qualify for further education, gainful employment, or training in a career or technical field; and development of the ability to apply such skills and knowledge in preparation for eventual employment and lifelong learning and to achieve economic self-sufficiency.

Local school boards shall also develop and implement programs of prevention, intervention, or remediation for students who are educationally at risk including, but not limited to, those who fail to achieve a passing score on any Standards of Learning assessment in grades three through eight or who fail an end-of-course test required for the award of a verified unit of credit. Such programs shall include components that are research-based.

Any student who achieves a passing score on one or more, but not all, of the Standards of Learning assessments for the relevant grade level in grades three through eight may be required to attend a remediation program.

Any student who fails to achieve a passing score on all of the Standards of Learning assessments for the relevant grade level in grades three through eight or who fails an end-of-course test required for the award of a verified unit of credit shall be required to attend a remediation program or to participate in another form of remediation. Division superintendents shall require such students to take special programs of prevention, intervention, or remediation, which may include attendance in public summer school programs, in accordance with clause (ii) of subsection A of § 22.1-254 and § 22.1-254.01.

Remediation programs shall include, when applicable, a procedure for early identification of students who are at risk of failing the Standards of Learning assessments in grades three through eight or who fail an end-of-course test required for the award of a verified unit of credit. Such programs may also include summer school for all elementary and middle school grades and for all high school academic courses, as defined by regulations promulgated by the Board of Education, or other forms of remediation. Summer school remediation programs or other forms of remediation shall be chosen by the division superintendent to be appropriate to the academic needs of the student. Students who are required to attend such summer school programs or to participate in another form of remediation shall not be charged tuition by the school division.

The requirement for remediation may, however, be satisfied by the student's attendance in a program of prevention, intervention or remediation that has been selected by his parent, in consultation with the division superintendent or his designee, and is either (i) conducted by an accredited private school or (ii) a special program that has been determined to be comparable to the required public school remediation program by the division superintendent. The costs of such private school remediation program or other special remediation program shall be borne by the student's parent.

The Board of Education shall establish standards for full funding of summer remedial programs that shall include, but not be limited to, the minimum number of instructional hours or the equivalent thereof required for full funding and an assessment system designed to evaluate program effectiveness. Based on the number of students attending and the Commonwealth's share of the per pupil instructional costs, state funds shall be provided for the full cost of summer and other remediation programs as set forth in the appropriation act, provided such programs comply with such standards as shall be established by the Board, pursuant to § 22.1-199.2.

D. Local school boards shall also implement the following:

1. Programs in grades K through three that emphasize developmentally appropriate learning to enhance success.

2. Programs based on prevention, intervention, or remediation designed to increase the number of students who earn a high school diploma and to prevent students from dropping out of school. Such programs shall include components that are research-based.

3. Career and technical education programs incorporated into the K through 12 curricula that include:

a. Knowledge of careers and all types of employment opportunities including, but not limited to, apprenticeships, entrepreneurship and small business ownership, the military, and the teaching profession, and emphasize the advantages of completing school with marketable skills;

b. Career exploration opportunities in the middle school grades; and

c. Competency-based career and technical education programs that integrate academic outcomes, career guidance and job-seeking skills for all secondary students. Programs must be based upon labor market needs and student interest. Career guidance shall include counseling about available employment opportunities and placement services for students exiting school. Each school board shall develop and implement a plan to ensure compliance with the provisions of this subdivision. Such plan shall be developed with the input of area business and industry representatives and local community colleges and shall be submitted to the Superintendent of Public Instruction in accordance with the timelines established by federal law.

4. Educational objectives in middle and high school that emphasize economic education and financial literacy pursuant to § 22.1-200.03.

5. Early identification of students with disabilities and enrollment of such students in appropriate instructional programs consistent with state and federal law.

6. Early identification of gifted students and enrollment of such students in appropriately differentiated instructional programs.

7. Educational alternatives for students whose needs are not met in programs prescribed elsewhere in these standards. Such students shall be counted in average daily membership (ADM) in accordance with the regulations of the Board of Education.

8. Adult education programs for individuals functioning below the high school completion level. Such programs may be conducted by the school board as the primary agency or through a collaborative arrangement between the school board and other agencies.

9. A plan to make achievements for students who are educationally at risk a divisionwide priority that shall include procedures for measuring the progress of such students.

10. A plan to notify students and their parents of the availability of dual enrollment and advanced placement classes, the International Baccalaureate Program, and Academic Year Governor's School Programs, the qualifications for enrolling in such classes and programs, and the availability of financial assistance to low-income and needy students to take the advanced placement and International Baccalaureate examinations.

11. Identification of students with limited English proficiency and enrollment of such students in appropriate instructional programs.

12. Early identification, diagnosis, and assistance for students with reading and mathematics problems and provision of instructional strategies and reading and mathematics practices that benefit the development of reading and mathematics skills for all students.

Local school divisions shall provide early reading intervention services to students in grades kindergarten through 3 who demonstrate deficiencies based on their individual performance on any diagnostic test which has been approved by the Department of Education. School divisions shall report the results of the diagnostic tests to the Department of Education on an annual basis at a time to be determined by the Superintendent of Public Instruction. Each student who receives an intervention will be assessed again at the end of that school year. Such intervention programs, at the discretion of the local school division, may include, but not be limited to, the use of: special reading teachers; trained aides; volunteer tutors under the supervision of a certified teacher; computer-based reading tutorial programs; aides to instruct in-class groups while the teacher provides direct instruction to the students who need extra assistance; or extended instructional time in the school day or year for these students.

Local school divisions shall also provide mathematics intervention services to students in grades 6, 7, 8 and 9 who are at risk of failing the Algebra I end-of-course test, as demonstrated by their individual performance on any diagnostic test which has been approved by the Department of Education. School divisions shall report the results of the diagnostic tests to the Department of Education on an annual basis at a time to be determined by the Superintendent of Public Instruction. Each student who receives an intervention will be assessed again at the end of that school year.

13. Incorporation of art, music, and physical education as a part of the instructional program at the elementary school level.

14. A program of physical fitness available to all students with a goal of at least 150 minutes per week on average during the regular school year. Such program may include any combination of (i) physical education classes, (ii) extracurricular athletics, or (iii) other programs and physical activities deemed appropriate by the local school board. Each local school board shall incorporate into its local wellness policy a goal for the implementation of such program during the regular school year.

15. A program of student services for grades kindergarten through 12 that shall be designed to aid students in their educational, social, and career development.

16. The collection and analysis of data and the use of the results to evaluate and make decisions about the instructional program.

E. From such funds as may be appropriated or otherwise received for such purpose, there shall be established within the Department of Education a unit to (i) conduct evaluative studies; (ii) provide the resources and technical assistance to increase the capacity for school divisions to deliver quality instruction; and (iii) assist school divisions in implementing those programs and practices that will enhance pupil academic performance and improve family and community involvement in the public schools. Such

unit shall identify and analyze effective instructional programs and practices and professional development initiatives; evaluate the success of programs encouraging parental and family involvement; assess changes in student outcomes prompted by family involvement; and collect and disseminate among school divisions information regarding effective instructional programs and practices, initiatives promoting family and community involvement, and potential funding and support sources. Such unit may also provide resources supporting professional development for administrators and teachers. In providing such information, resources, and other services to school divisions, the unit shall give priority to those divisions demonstrating a less than 70 percent passing rate on the Standards of Learning assessments.

§ 22.1-253.13:2. Standard 2. Instructional, administrative, and support personnel.

A. The Board shall establish requirements for the licensing of teachers, principals, superintendents, and other professional personnel.

B. School boards shall employ licensed instructional personnel qualified in the relevant subject areas.

C. Each school board shall assign licensed instructional personnel in a manner that produces divisionwide ratios of students in average daily membership to full-time equivalent teaching positions, excluding special education teachers, principals, assistant principals, counselors, and librarians, that are not greater than the following ratios: (i) 24 to one in kindergarten with no class being larger than 29 students; if the average daily membership in any kindergarten class exceeds 24 pupils, a full-time teacher's aide shall be assigned to the class; (ii) 24 to one in grades one, two, and three with no class being larger than 30 students; (iii) 25 to one in grades four through six with no class being larger than 35 students; and (iv) 24 to one in English classes in grades six through 12.

~~*Within its regulations governing special education programs, the Board shall seek to set pupil/teacher ratios for pupils with mental retardation that do not exceed the pupil/teacher ratios for self-contained classes for pupils with specific learning disabilities.*~~

Further, school boards shall assign instructional personnel in a manner that produces schoolwide ratios of students in average daily memberships to full-time equivalent teaching positions of 21 to one in middle schools and high schools. School divisions shall provide all middle and high school teachers with one planning period per day or the equivalent, unencumbered of any teaching or supervisory duties.

D. *1.* Each local school board shall employ with state and local basic *aid*, special education, gifted, and career and technical education funds a minimum ~~*number*~~ of *58* licensed, full-time equivalent instructional personnel for each 1,000 students in average daily membership (ADM) as set forth in the appropriation act. Calculations of kindergarten positions shall be based on full-day kindergarten programs. Beginning with the March 31 report of average daily membership, those school divisions offering half-day kindergarten with pupil/teacher ratios that exceed 30 to one shall adjust their average daily membership for kindergarten to reflect 85 percent of the total kindergarten average daily memberships, as provided in the appropriation act.

2. Each local school board shall employ licensed, full-time equivalent positions in necessary to comply with the following requirements for special education services ***[for students requiring either Level I or Level II services. Level I services, means the provision of special education to children with disabilities for less than 50 percent of their instructional school day (excluding intermission for meals). Level II services, means the provision of special education and related services to children with disabilities for 50 percent or more of the instructional school day (excluding intermission for meals). The time that a child receives special education services is calculated on the basis of special education services described in the individualized education program, rather than the location of services.]***

Local school division caseload maximums as funded by the Virginia Appropriation Act

Disability Category	*Level II*		*Level I*
	With Paraprofessional 100% of the time	*Without Paraprofessional 100% of the Time*	
Autism	*8*	*6*	*24*
Deaf-blindness	*8*	*6*	
Developmental Delay: age 5-6	*10*	*8*	
Developmental Delay: age 2-5	*8 Center-based 10 Combined*	*12 Home-based and/or Itinerant*	
Emotional Disability	*10*	*8*	*24*
Hearing Impairment/Deaf	*10*	*8*	*24*
Learning Disability	*10*	*8*	*24*
Intellectual Disability	*10*	*8*	*24*
Multiple Disabilities	*8*	*6*	
Orthopedic Impairment	*10*	*8*	*24*
Other Health Impaired	*10*	*8*	*24*
Speech or Language Impairment	*NA*	*NA*	*68 (Itinerant)*
Traumatic Brain Injury	*May be placed in any program, according to the individualized education program.*		
Combined group of students needing Level I services with students needing Level II services	*20 Points (see values for students receiving Level I services when combined with students receiving Level II services)*		

Values for students receiving Level I services when combined with students receiving Level II services

Disability Category	*Level II Values*		*Level I*
	With Paraprofessional 100% of the time	*Without Paraprofessional 100% of the time*	*Values*
Autism	*2.5*	*3.3*	*1*
Deaf-blindness	*2.5*	*3.3*	*1*
Developmental Delay: age 5-6	*2.0*	*2.5*	*1*
Emotional Disability	*2.0*	*2.5*	*1*
Hearing Impairment/Deaf	*2.0*	*2.5*	*1*
Learning Disability	*2.0*	*2.5*	*1*
Intellectual Disability	*2.0*	*2.5*	*1*
Multiple Disabilities	*2.5*	*3.3*	*1*
Orthopedic Impairment	*2.0*	*2.5*	*1*
Other Health Impairment	*2.0*	*2.5*	*1*
Traumatic Brain Injury	*2.0*	*2.5*	*1*

3. Local school boards shall employ one licensed, full-time equivalent position per 1,000 students in grades kindergarten through 12 for gifted education services.

4. Each local school board shall employ licensed, full-time equivalent positions in career and technical education necessary to comply with the following requirements:

a. Career and technical education laboratory classes that use equipment that has been identified by the U.S. Department of Labor for hazardous occupations shall be limited to a maximum of 20 students per laboratory.

b. Career and technical education courses approved for students who are disadvantaged shall be limited to an average of 15 students per instructor per class period with no class being more than 18.

c. Career and technical education courses approved for students with disabilities shall be limited to an average of 10 students per instructor per class period with no class being more than 12 or up to an average of 12 students per class period with no class being more than 15 where an instructional aide is provided.

d. Enrollments in career and technical education courses shall not exceed the number of individual work stations.

e. Career and technical education programs using the cooperative education method of instruction shall be limited to an average of 20 students per instructor per class period with no class being more than 24 where the cooperative education method of instruction is required and have a class period assigned to the instructor for on-the-job coordination for each 20 students participating in on-the-job training.

E. In addition to the positions supported by basic aid and in support of regular school year programs of prevention, intervention, and remediation, state funding, pursuant to the appropriation act, shall be provided to fund certain full-time equivalent instructional positions for each 1,000 students in grades K through 12 who are identified as needing prevention, intervention, and remediation services. State funding for prevention, intervention, and remediation programs provided pursuant to this subsection and the appropriation act may be used to support programs for educationally at-risk students as identified by the local school boards.

To provide flexibility in the provision of mathematics intervention services, school divisions may use the state Standards of Learning Algebra Readiness initiative funding and the required local matching funds, pursuant to § 22.1-253.13, paragraph D, 12, to employ mathematics teacher specialists to provide the required mathematics intervention services. School divisions using the Standards of Learning Algebra Readiness initiative funding in this manner shall only employ instructional personnel licensed by the Board of Education.

F. In addition to the positions supported by basic aid and those in support of regular school year programs of prevention, intervention, and remediation, state funding, pursuant to the appropriation act, shall be provided to support 17 full-time equivalent instructional positions for each 1,000 students identified as having limited English proficiency.

To provide flexibility in the instruction of English Language Learners who have limited English proficiency and who are at risk of not meeting state accountability standards, school divisions may use state and local funds from the Standards of Quality Prevention, Intervention, and Remediation account to employ additional English Language Learner teachers to provide instruction to identified limited English proficiency students. Using these funds in this manner is intended to supplement the instructional services provided through the Standards of Quality staffing standard of 17 instructional positions per 1,000 limited English proficiency students. School divisions using the Standards of Quality Prevention, Intervention, and Remediation funds in this manner shall only employ instructional personnel licensed by the Board of Education.

G. In addition to the full-time equivalent positions required elsewhere in this section, each local school board shall employ the following reading specialists in elementary schools, one full-time in each elementary school at the discretion of the local school board.

To provide flexibility in the provision of reading intervention services, school divisions may use the state Early Reading Intervention initiative funding and the required local matching funds, pursuant to § 22.1-253.13, paragraph D, 12, to employ reading specialists to provide the required reading intervention services. School divisions using

the Early Reading Intervention Initiative funds in this manner shall only employ instructional personnel licensed by the Board of Education.

H. Each local school board shall employ, at a minimum, the following full-time equivalent positions for any school that reports fall membership, according to the type of school and student enrollment:

1. Principals in elementary schools, one half-time to 299 students, one full-time at 300 students; principals in middle schools, one full-time, to be employed on a 12-month basis; principals in high schools, one full-time, to be employed on a 12-month basis;

2. Assistant principals in elementary schools, one half-time at 600 students, one full-time at 900 students; assistant principals in middle schools, one full-time for each 600 students; assistant principals in high schools, one full-time for each 600 students.

School divisions that employ a sufficient number of assistant principals to meet these staffing requirements may assign assistant principals to schools within the division according to the area of greatest need, regardless of whether such schools are elementary, middle, or secondary.

3. Librarians in elementary schools, one part-time to 299 students, one full-time at 300 students; librarians in middle schools, one-half time to 299 students, one full-time at 300 students, two full-time at 1,000 students; librarians in high schools, one half-time to 299 students, one full-time at 300 students, two full-time at 1,000 students;

4. Guidance counselors in elementary schools, one hour per day per 100 students, one full-time at 500 students, one hour per day additional time per 100 students or major fraction thereof; guidance counselors in middle schools, one period per 80 students, one full-time at 400 students, one additional period per 80 students or major fraction thereof; guidance counselors in high schools, one period per 70 students, one full-time at 350 students, one additional period per 70 students or major fraction thereof; and

~~*5. Clerical personnel in elementary schools, part-time to 299 students, one full-time at 300 students; clerical personnel in middle schools, one full-time and one additional full-time for each 600 students beyond 200 students and one full-time for the library at 750 students; clerical personnel in high schools, one full-time and one additional full-time for each 600 students beyond 200 students and one full-time for the library at 750 students.*~~

I. Local school boards shall employ five full-time equivalent positions per 1,000 students in grades kindergarten through five to serve as elementary resource teachers in art, music, and physical education.

J. Local school boards shall employ two full-time equivalent positions per 1,000 students in grades kindergarten through 12, one to provide technology support and one to serve as an instructional technology resource teacher.

To provide flexibility, school divisions may use the state and local funds for instructional technology resource teachers to employ a data coordinator position, an instructional technology resource teacher position, or a data coordinator/instructional resource teacher blended position. The data coordinator position is intended to serve as a resource to principals and classroom teachers in the area of data analysis and interpretation for instructional and school improvement purposes, as well as for overall

data management and administration of state assessments. School divisions using these Standards of Quality funds in this manner shall only employ instructional personnel licensed by the Board of Education.

K. Local school boards may employ additional positions that exceed these minimal staffing requirements. These additional positions may include, but are not limited to, those funded through the state's incentive and categorical programs as set forth in the appropriation act.

L. A combined school, such as kindergarten through 12, shall meet at all grade levels the staffing requirements for the highest grade level in that school; this requirement shall apply to all staff, except for guidance counselors, and shall be based on the school's total enrollment; guidance counselor staff requirements shall, however, be based on the enrollment at the various school organization levels, i.e., elementary, middle, or high school. The Board of Education may grant waivers from these staffing levels upon request from local school boards seeking to implement experimental or innovative programs that are not consistent with these staffing levels.

M. School boards shall, however, annually, on or before January 1, report to the public the actual pupil/teacher ratios in elementary school classrooms by school for the current school year. Such actual ratios shall include only the teachers who teach the grade and class on a full-time basis and shall exclude resource personnel. School boards shall report pupil/teacher ratios that include resource teachers in the same annual report. Any classes funded through the voluntary kindergarten through third grade class size reduction program shall be identified as such classes. Any classes having waivers to exceed the requirements of this subsection shall also be identified. Schools shall be identified; however, the data shall be compiled in a manner to ensure the confidentiality of all teacher and pupil identities.

N. Students enrolled in a public school on a less than full-time basis shall be counted in ADM in the relevant school division. Students who are either (i) enrolled in a nonpublic school or (ii) receiving home instruction pursuant to § 22.1-254.1, and who are enrolled in public school on a less than full-time basis in any mathematics, science, English, history, social science, career and technical education, fine arts, foreign language, or health education or physical education course shall be counted in the ADM in the relevant school division on a pro rata basis as provided in the appropriation act. Each such course enrollment by such students shall be counted as 0.25 in the ADM; however, no such nonpublic or home school student shall be counted as more than one-half a student for purposes of such pro rata calculation. Such calculation shall not include enrollments of such students in any other public school courses.

O. Each local school board shall provide those support services that are necessary for the efficient and cost-effective operation and maintenance of its public schools.

For the purposes of this title, unless the context otherwise requires, "support services *positions*" shall include ~~*services provided by the school board members; the superintendent; assistant superintendents; student services (including guidance counselors, social workers, and homebound, improvement, principal's office, and library-media positions); attendance and health positions; administrative, technical, and clerical*~~

~~*positions; operation and maintenance positions; educational technology positions; school nurses; and pupil transportation positions.*~~ *the following:*

1. *Executive policy and leadership positions, including school board members, superintendent, and assistant superintendents;*
2. *Fiscal and human resource positions, including fiscal and audit operations, human resources, and procurement;*
3. *Student support positions, which include:*
    a. *Social workers and social work administrative positions;*
    b. *Guidance administrative positions not included in paragraph H.4, ,*
    c. *Homebound administrative positions supporting instruction;*
    d. *Attendance support positions related to truancy and drop-out prevention;*
    e. *Health and behavioral positions, including school nurses and school psychologists;*
4. *Instructional personnel support, including professional development positions and library and media positions not included in H.3;*
5. *Technology professional positions not included in paragraph J;*
6. *Operation and maintenance positions, including facilities; pupil transportation positions; operation, and maintenance professional and service positions; security services, trades, and laborer positions;*
7. *Technical and clerical positions, including fiscal and human resource technical/clerical, student support technical/clerical, instructional personnel support technical/clerical, operation and maintenance technical/clerical, administration technical/clerical, and technology technical/clerical positions;*
8. *School-based clerical personnel in elementary schools, part-time to 299 students, one full-time at 300 students; clerical personnel in middle schools, one full-time and one additional full-time for each 600 students beyond 200 students and one full-time for the library at 750 students; clerical personnel in high schools, one full-time and one additional full-time for each 600 students beyond 200 students and one full-time for the library at 750 students.*

Pursuant to the appropriation act, support services shall be funded from basic school aid on the basis of prevailing statewide costs *unless the Standards of Quality specify a staffing standard.*

School divisions may use the state and local funds for support services to provide additional instructional services.

Local school divisions shall report publicly the state and local amounts budgeted and expended for each category of support services listed above. Local school divisions shall also report publicly the amounts they received for support services that were used to provide additional instructional services.

§ 22.1-253.13:3. Standard 3. Accreditation, other standards and evaluation.

A. The Board of Education shall promulgate regulations establishing standards for accreditation pursuant to the Administrative Process Act (§ 2.2-4000 et seq.), which shall include, but not be limited to, student outcome measures, requirements and guidelines for

instructional programs and for the integration of educational technology into such instructional programs, administrative and instructional staffing levels and positions, including staff positions for supporting educational technology, student services, auxiliary education programs such as library and media services, course and credit requirements for graduation from high school, community relations, and the philosophy, goals, and objectives of public education in Virginia.

The Board shall review annually the accreditation status of all schools in the Commonwealth.

Each local school board shall maintain schools that are fully accredited pursuant to the standards for accreditation as prescribed by the Board of Education. Each local school board shall review the accreditation status of all schools in the local school division annually in public session. Within the time specified by the Board of Education, each school board shall submit corrective action plans for any schools within its school division that have been designated as not meeting the standards as approved by the Board.

When the Board of Education has obtained evidence through the school academic review process that the failure of schools within a division to achieve full accreditation status is related to division level failure to implement the Standards of Quality, the Board may require a division level academic review. After the conduct of such review and within the time specified by the Board of Education, each school board shall submit for approval by the Board a corrective action plan, consistent with criteria established by the Board and setting forth specific actions and a schedule designed to ensure that schools within its school division achieve full accreditation status. Such corrective action plans shall be part of the relevant school division's comprehensive plan pursuant to § 22.1-253.13:6.

With such funds as are appropriated or otherwise received for this purpose, the Board shall adopt and implement an academic review process, to be conducted by the Department of Education, to assist schools that are accredited with warning. The Department shall forward a report of each academic review to the relevant local school board, and such school board shall report the results of such academic review and the required annual progress reports in public session. The local school board shall implement any actions identified through the academic review and utilize them for improvement planning.

B. The Superintendent of Public Instruction shall develop and the Board of Education shall approve criteria for determining and recognizing educational performance in the Commonwealth's public school divisions and schools. Such criteria, when approved, shall become an integral part of the accreditation process and shall include student outcome measurements. The Superintendent of Public Instruction shall annually identify to the Board those school divisions and schools that exceed or do not meet the approved criteria. Such identification shall include an analysis of the strengths and weaknesses of public education programs in the various school divisions in Virginia and recommendations to the General Assembly for further enhancing student learning uniformly across the Commonwealth. In recognizing educational performance in the school divisions, the Board shall include consideration of special school division accomplishments, such as numbers of dual enrollments and students in Advanced

Placement and International Baccalaureate courses, and participation in academic year Governor's Schools.

The Superintendent of Public Instruction shall assist local school boards in the implementation of action plans for increasing educational performance in those school divisions and schools that are identified as not meeting the approved criteria. The Superintendent of Public Instruction shall monitor the implementation of and report to the Board of Education on the effectiveness of the corrective actions taken to improve the educational performance in such school divisions and schools.

C. With such funds as are available for this purpose, the Board of Education shall prescribe assessment methods to determine the level of achievement of the Standards of Learning objectives by all students. Such assessments shall evaluate knowledge, application of knowledge, critical thinking, and skills related to the Standards of Learning being assessed. The Board shall (i) in consultation with the chairpersons of the eight regional superintendents' study groups, establish a timetable for administering the Standards of Learning assessments to ensure genuine end-of-course and end-of-grade testing and (ii) with the assistance of independent testing experts, conduct a regular analysis and validation process for these assessments.

In prescribing such Standards of Learning assessments, the Board shall provide local school boards the option of administering tests for United States History to 1877, United States History: 1877 to the Present, and Civics and Economics. The last administration of the cumulative grade eight history test will be during the 2007-2008 academic school year. Beginning with the 2008-2009 academic year, all school divisions shall administer the United States History to 1877, United States History: 1877 to the Present, and Civics and Economics tests. The Board shall also provide the option of industry certification and state licensure examinations as a student-selected verified credit.

The Board of Education shall make publicly available such assessments in a timely manner and as soon as practicable following the administration of such tests, so long as the release of such assessments does not compromise test security or deplete the bank of assessment questions necessary to construct subsequent tests, or limit the ability to test students on demand and provide immediate results in the web-based assessment system.

The Board shall include in the student outcome measures that are required by the Standards for Accreditation end-of-course or end-of-grade tests for various grade levels and classes, as determined by the Board, in accordance with the Standards of Learning. These Standards of Learning assessments shall include, but need not be limited to, end-of-course or end-of-grade tests for English, mathematics, science, and history and social science.

In addition, to assess the educational progress of students, the Board of Education shall (i) develop appropriate assessments, which may include criterion-referenced tests and alternative assessment instruments that may be used by classroom teachers; (ii) select appropriate industry certification and state licensure examinations and (iii) prescribe and provide measures, which may include nationally normed tests to be used to identify students who score in the bottom quartile at selected grade levels.

The Standard of Learning requirements, including all related assessments, shall be waived for any student awarded a scholarship under the Brown v. Board of Education Scholarship Program, pursuant to § 30-231.2, who is enrolled in a preparation program for the General Education Development (GED) certificate or in an adult basic education program to obtain the high school diploma.

The Board of Education may adopt special provisions related to the administration and use of any SOL test or tests in a content area as applied to accreditation ratings for any period during which the SOL content or assessments in that area are being revised and phased in. Prior to statewide administration of such tests, the Board of Education shall provide notice to local school boards regarding such special provisions.

D. The Board of Education may pursue all available civil remedies pursuant to § 22.1-19.1 or administrative action pursuant to § 22.1-292.1 for breaches in test security and unauthorized alteration of test materials or test results.

The Board may initiate or cause to be initiated a review or investigation of any alleged breach in security, unauthorized alteration, or improper administration of tests by local school board employees responsible for the distribution or administration of the tests.

Records and other information furnished to or prepared by the Board during the conduct of a review or investigation may be withheld pursuant to subdivision 12 of § 2.2-3705.3. However, this section shall not prohibit the disclosure of records to (i) a local school board or division superintendent for the purpose of permitting such board or superintendent to consider or to take personnel action with regard to an employee or (ii) any requester, after the conclusion of a review or investigation, in a form that (a) does not reveal the identity of any person making a complaint or supplying information to the Board on a confidential basis and (b) does not compromise the security of any test mandated by the Board. Any local school board or division superintendent receiving such records or other information shall, upon taking personnel action against a relevant employee, place copies of such records or information relating to the specific employee in such person's personnel file.

Notwithstanding any other provision of state law, no test or examination authorized by this section, including the Standards of Learning assessments, shall be released or required to be released as minimum competency tests, if, in the judgment of the Board, such release would breach the security of such test or examination or deplete the bank of questions necessary to construct future secure tests.

E. With such funds as may be appropriated, the Board of Education may provide, through an agreement with vendors having the technical capacity and expertise to provide computerized tests and assessments, and test construction, analysis, and security, for (i) web-based computerized tests and assessments for the evaluation of student progress during and after remediation and (ii) the development of a remediation item bank directly related to the Standards of Learning.

F. To assess the educational progress of students as individuals and as groups, each local school board shall require the use of Standards of Learning assessments and other relevant data, such as industry certification and state licensure examinations, to evaluate student progress and to determine educational performance. Each local school shall

require the administration of appropriate assessments to all students for grade levels and courses identified by the Board of Education, which may include criterion-referenced tests, teacher-made tests and alternative assessment instruments and shall include the Standards of Learning Assessments and the National Assessment of Educational Progress state-by-state assessment. Each school board shall analyze and report annually, in compliance with any criteria that may be established by the Board of Education, the results from the Stanford Achievement Test Series, Ninth Edition (Stanford Nine) assessment, if administered, industry certification examinations, and the Standards of Learning Assessments to the public.

The Board of Education shall not require administration of the Stanford Achievement Test Series, Ninth Edition (Stanford Nine) assessment, except as may be selected to facilitate compliance with the requirements for home instruction pursuant to § 22.1-254.1.

The Board shall include requirements for the reporting of the Standards of Learning assessment scores and averages for each year as part of the Board's requirements relating to the School Performance Report Card. Such scores shall be disaggregated for each school by student subgroups on the Virginia assessment program as appropriate and shall be reported to the public within three months of their receipt. These reports (i) shall be posted on the portion of the Department of Education's website relating to the School Performance Report Card, in a format and in a manner that allows year-to-year comparisons, and (ii) may include the National Assessment of Educational Progress state-by-state assessment.

G. Each local school division superintendent shall regularly review the division's submission of data and reports required by state and federal law and regulations to ensure that all information is accurate and submitted in a timely fashion. The Superintendent of Public Instruction shall provide a list of the required reports and data to division superintendents annually. The status of compliance with this requirement shall be included in the Board of Education's annual report to the Governor and the General Assembly as required by § 22.1-18.

§ 22.1-253.13:4. Standard 4. Student achievement and graduation requirements.

A. Each local school board shall award diplomas to all secondary school students, including students who transfer from nonpublic schools or from home instruction, who earn the units of credit prescribed by the Board of Education, pass the prescribed tests, and meet such other requirements as may be prescribed by the local school board and approved by the Board of Education. Provisions shall be made to facilitate the transfer and appropriate grade placement of students from other public secondary schools, from nonpublic schools, or from home instruction as outlined in the standards for accreditation. Course credits earned for online courses taken in the Department of Education's Virtual Virginia program shall transfer to Virginia public schools in accordance with provisions of the standards for accreditation. Further, reasonable accommodation to meet the requirements for diplomas shall be provided for otherwise qualified students with disabilities as needed.

In addition, each local school board may devise, vis-a-vis the award of diplomas to secondary school students, a mechanism for calculating class rankings that takes into

consideration whether the student has taken a required class more than one time and has had any prior earned grade for such required class expunged.

Each local school board shall notify the parents of rising eleventh and twelfth grade students of (i) the number and subject area requirements of standard and verified units of credit required for graduation pursuant to the standards for accreditation and (ii) the remaining number and subject area requirements of such units of credit the individual student requires for graduation.

B. Students identified as disabled who complete the requirements of their individualized education programs shall be awarded special diplomas by local school boards.

Each local school board shall notify the parent of such students with disabilities who have an individualized education program and who fail to meet the requirements for a standard or advanced studies diploma of the student's right to a free and appropriate education to age 21, inclusive, pursuant to Article 2 (§ 22.1-213 et seq.) of Chapter 13 of this title.

C. Students who have completed a prescribed course of study as defined by the local school board shall be awarded certificates of program completion by local school boards if they are not eligible to receive a standard, advanced studies, modified standard, special, or general achievement diploma.

Each local school board shall provide notification of the right to a free public education for students who have not reached 20 years of age on or before August 1 of the school year, pursuant to Chapter 1 (§ 22.1-1 et seq.) of this title, to the parent of students who fail to graduate or who have failed to achieve the number of verified units of credit required for graduation as provided in the standards for accreditation. If such student who does not graduate or achieve such verified units of credit is a student for whom English is a second language, the local school board shall notify the parent of the student's opportunity for a free public education in accordance with § 22.1-5.

D. In establishing course and credit requirements for a high school diploma, the Board shall:

1. Provide for the selection of integrated learning courses meeting the Standards of Learning and approved by the Board to satisfy graduation credit requirements, which shall include Standards of Learning testing, as necessary;

2. Establish the requirements for a standard, modified standard, or advanced studies high school diploma, which shall include one credit in fine or performing arts or career and technical education and one credit in United States and Virginia history. The requirements for a standard high school diploma shall, however, include at least two sequential electives chosen from a concentration of courses selected from a variety of options that may be planned to ensure the completion of a focused sequence of elective courses. Students may take such focused sequence of elective courses in consecutive years or any two years of high school. Such focused sequence of elective courses shall provide a foundation for further education or training or preparation for employment and shall be developed by the school division, consistent with Board of Education guidelines and as approved by the local school board;

3. Establish the requirements for a technical diploma. This diploma shall meet or exceed the requirements of a standard diploma and will include a concentration in career and technical education, as established in Board regulations. A student who meets the requirement for the advanced studies diploma who also fulfills a concentration in career and technical education shall receive an advanced technical diploma, or if he chooses, he shall receive an advanced studies diploma. The Board may develop or designate assessments in career and technical education for the purposes of awarding verified credit pursuant to subdivision 6;

4. Provide, in the requirements for the verified units of credit stipulated for obtaining the standard or advanced studies diploma, that students completing elective classes into which the Standards of Learning for any required course have been integrated may take the relevant Standards of Learning test for the relevant required course and receive, upon achieving a satisfactory score on the specific Standards of Learning assessment, a verified unit of credit for such elective class that shall be deemed to satisfy the Board's requirement for verified credit for the required course;

5. Establish a procedure to facilitate the acceleration of students that allows qualified students, with the recommendation of the division superintendent, without completing the 140-hour class, to obtain credit for such class upon demonstration of mastery of the course content and objectives. Having received credit for the course, the student shall be permitted to sit for the relevant Standards of Learning assessment and, upon receiving a passing score, shall earn a verified credit.

6. Provide for the award of verified units of credit for passing scores on industry certifications, state licensure examinations, and national occupational competency assessments approved by the Board of Education.

School boards shall report annually to the Board of Education the number of industry certifications obtained, state licensure examinations passed, and the number of career and technical education completers that graduated. These numbers shall be reported as categories on the School Performance Report Card.

For the purposes of this subdivision, a "career and technical education completer" is a student who has met the requirements for a career and technical concentration or specialization and all requirements for high school graduation or an approved alternative education program.

In addition, the Board may:

a. For the purpose of awarding verified units of credit, approve the use of additional or substitute tests for the correlated Standards of Learning assessment, such as academic achievement tests, industry certifications or state licensure examinations; and

b. Permit students completing career and technical education programs designed to enable such students to pass such industry certification examinations or state licensure examinations to be awarded, upon obtaining satisfactory scores on such industry certification or licensure examinations, the appropriate verified units of credit for one or more career and technical education classes into which relevant Standards of Learning for various classes taught at the same level have been integrated. Such industry certification and state licensure examinations may cover relevant Standards of Learning for various

required classes and may, at the discretion of the Board, address some Standards of Learning for several required classes.

E. In the exercise of its authority to recognize exemplary academic performance by providing for diploma seals, the Board of Education shall develop criteria for recognizing exemplary performance in career and technical education programs by students who have completed the requirements for a standard or advanced studies diploma and shall award seals on the diplomas of students meeting such criteria.

In addition, the Board shall establish criteria for awarding a diploma seal for advanced mathematics and technology for the standard and advanced studies diplomas. The Board shall consider including criteria for (i) technology courses; (ii) technical writing, reading, and oral communication skills; (iii) technology-related training; and (iv) industry, professional, and trade association national certifications.

The Board shall also establish criteria for awarding a diploma seal for excellence in civics education and understanding of our state and federal constitutions and the democratic model of government for the standard and advanced studies diplomas. The Board shall consider including criteria for (i) successful completion of history, government, and civics courses, including courses that incorporate character education; (ii) voluntary participation in community service or extracurricular activities that includes the types of activities that shall qualify as community service and the number of hours required; and (iii) related requirements as it deems appropriate.

F. The Board shall establish, by regulation, requirements for the award of a general achievement diploma for those persons who have (i) achieved a passing score on the GED examination; (ii) successfully completed an education and training program designated by the Board of Education; and (iii) satisfied other requirements as may be established by the Board for the award of such diploma.

G. To ensure the uniform assessment of high school graduation rates, the Board shall collect, analyze, and report high school graduation and dropout data using a formula prescribed by the Board.

The Board may promulgate such regulations as may be necessary and appropriate for the collection, analysis, and reporting of such data.

§ 22.1-253.13:5. Standard 5. Quality of classroom instruction and educational leadership.

A. Each member of the Board of Education shall participate in high-quality professional development programs on personnel, curriculum and current issues in education as part of his service on the Board.

B. Consistent with the finding that leadership is essential for the advancement of public education in the Commonwealth, teacher, administrator, and superintendent evaluations shall be consistent with the performance objectives included in the Guidelines for Uniform Performance Standards and Evaluation Criteria for Teachers, Administrators, and Superintendents. Teacher evaluations shall include regular observation and evidence that instruction is aligned with the school's curriculum. Evaluations shall include

identification of areas of individual strengths and weaknesses and recommendations for appropriate professional activities.

C. The Board of Education shall provide guidance on high-quality professional development for (i) teachers, principals, supervisors, division superintendents and other school staff; (ii) administrative and supervisory personnel in the evaluation and documentation of teacher and administrator performance based on student academic progress and the skills and knowledge of such instructional or administrative personnel; (iii) school board members on personnel, curriculum and current issues in education; and (iv) programs in Braille for teachers of the blind and visually impaired, in cooperation with the Virginia Department for the Blind and Vision Impaired.

The Board shall also provide technical assistance on high-quality professional development to local school boards designed to ensure that all instructional personnel are proficient in the use of educational technology consistent with its comprehensive plan for educational technology.

D. Each local school board shall require (i) its members to participate annually in high-quality professional development activities at the state, local, or national levels on governance, including, but not limited to, personnel policies and practices; curriculum and instruction; use of data in planning and decision making; and current issues in education as part of their service on the local board and (ii) the division superintendent to participate annually in high-quality professional development activities at the local, state or national levels

E. Each local school board shall provide a program of high-quality professional development (i) in the use and documentation of performance standards and evaluation criteria based on student academic progress and skills for teachers and administrators to clarify roles and performance expectations and to facilitate the successful implementation of instructional programs that promote student achievement at the school and classroom levels; (ii) as part of the license renewal process, to assist teachers and principals in acquiring the skills needed to work with gifted students, students with disabilities, and students who have been identified as having limited English proficiency and to increase student achievement and expand the knowledge and skills students require to meet the standards for academic performance set by the Board of Education; (iii) in educational technology for all instructional personnel which is designed to facilitate integration of computer skills and related technology into the curricula, and (iv) for administrative personnel designed to increase proficiency in instructional leadership and management, including training in the evaluation and documentation of teacher and administrator performance based on student academic progress and the skills and knowledge of such instructional or administrative personnel.

In addition, each local school board shall also provide teachers and principals with high-quality professional development programs each year in (i) instructional content; (ii) the preparation of tests and other assessment measures; (iii) methods for assessing the progress of individual students, including Standards of Learning assessment materials or other criterion-referenced tests that match locally developed objectives; (iv) instruction and remediation techniques in English, mathematics, science, and history and social

science; (v) interpreting test data for instructional purposes; (vi) technology applications to implement the Standards of Learning; and (vii) effective classroom management.

F. Schools and school divisions shall include as an integral component of their comprehensive plans required by § 22.1-253.13:6, high-quality professional development programs that support the recruitment, employment, and retention of qualified teachers and principals. Each school board shall require all instructional personnel to participate each year in these professional development programs.

G. Each local school board shall annually review its professional development program for quality, effectiveness, participation by instructional personnel, and relevancy to the instructional needs of teachers and the academic achievement needs of the students in the school division.

§ 22.1-253.13:6. Standard 6. Planning and public involvement.

A. The Board of Education shall adopt a statewide comprehensive, unified, long-range plan based on data collection, analysis, and evaluation. Such plan shall be developed with statewide participation. The Board shall review the plan biennially and adopt any necessary revisions. The Board shall post the plan on the Department of Education's website if practicable, and, in any case, shall make a hard copy of such plan available for public inspection and copying.

This plan shall include the objectives of public education in Virginia, including strategies for first improving student achievement, particularly the achievement of educationally at-risk students, then maintaining high levels of student achievement; an assessment of the extent to which these objectives are being achieved; a forecast of enrollment changes; and an assessment of the needs of public education in the Commonwealth. In the annual report required by § 22.1-18, the Board shall include an analysis of the extent to which these Standards of Quality have been achieved and the objectives of the statewide comprehensive plan have been met. The Board shall also develop, consistent with, or as a part of, its comprehensive plan, a detailed comprehensive, long-range plan to integrate educational technology into the Standards of Learning and the curricula of the public schools in Virginia, including career and technical education programs. The Board shall review and approve the comprehensive plan for educational technology and may require the revision of such plan as it deems necessary.

B. Each local school board shall adopt a divisionwide comprehensive, unified, long-range plan based on data collection, an analysis of the data, and how the data will be utilized to improve classroom instruction and student achievement. The plan shall be developed with staff and community involvement and shall include, or be consistent with, all other divisionwide plans required by state and federal laws and regulations. Each local school board shall review the plan biennially and adopt any necessary revisions. Prior to the adoption of any divisionwide comprehensive plan or revisions thereto, each local school board shall post such plan or revisions on the division's Internet website if practicable, and, in any case, shall make a hard copy of the plan or revisions available for public inspection and copying and shall conduct at least one public hearing to solicit public comment on the divisionwide plan or revisions.

The divisionwide comprehensive plan shall include, but shall not be limited to, (i) the objectives of the school division, including strategies for first improving student achievement, particularly the achievement of educationally at-risk students, then maintaining high levels of student achievement; (ii) an assessment of the extent to which these objectives are being achieved; (iii) a forecast of enrollment changes; (iv) a plan for projecting and managing enrollment changes including consideration of the consolidation of schools to provide for a more comprehensive and effective delivery of instructional services to students and economies in school operations; (v) an evaluation of the appropriateness of establishing regional programs and services in cooperation with neighboring school divisions; (vi) a plan for implementing such regional programs and services when appropriate; (vii) a technology plan designed to integrate educational technology into the instructional programs of the school division, including the school division's career and technical education programs, consistent with, or as a part of, the comprehensive technology plan for Virginia adopted by the Board of Education; (viii) an assessment of the needs of the school division and evidence of community participation, including parental participation, in the development of the plan; (ix) any corrective action plan required pursuant to § 22.1-253.13:3; and (x) a plan for parent and family involvement to include building successful school and parent partnerships that shall be developed with staff and community involvement, including participation by parents.

A report shall be presented by each school board to the public by November 1 of each odd-numbered year on the extent to which the objectives of the divisionwide comprehensive plan have been met during the previous two school years.

C. Each public school shall also prepare a comprehensive, unified, long-range plan, which the relevant school board shall consider in the development of its divisionwide comprehensive plan.

D. The Board of Education shall, in a timely manner, make available to local school boards information about where current Virginia school laws, Board regulations and revisions, and copies of relevant Opinions of the Attorney General of Virginia may be located online.

§ 22.1-253.13:7. Standard 7. School board policies.

A. Each local school board shall develop policies and procedures to address complaints of sexual abuse of a student by a teacher or other school board employee.

B. Each local school board shall maintain and follow up-to-date policies. All school board policies shall be reviewed at least every five years and revised as needed.

C. Each local school board shall ensure that policies are developed giving consideration to the views of teachers, parents, and other concerned citizens and addressing the following:

1. A system of two-way communication between employees and the local school board and its administrative staff whereby matters of concern can be discussed in an orderly and constructive manner;

2. The selection and evaluation of all instructional materials purchased by the school division, with clear procedures for handling challenged controversial materials;

3. The standards of student conduct and attendance and enforcement procedures designed to provide that public education be conducted in an atmosphere free of disruption and threat to persons or property and supportive of individual rights;

4. School-community communications and community involvement;

5. Guidelines to encourage parents to provide instructional assistance to their children in the home, which may include voluntary training for the parents of children in grades K through three;

6. Information about procedures for addressing concerns with the school division and recourse available to parents pursuant to § 22.1-87;

7. A cooperatively developed procedure for personnel evaluation appropriate to tasks performed by those being evaluated; and

8. Grievances, dismissals, etc., of teachers, and the implementation procedure prescribed by the General Assembly and the Board of Education, as provided in Article 3 (§ 22.1-306 et seq.) of Chapter 15 of this title, and the maintenance of copies of such procedures.

D. A current copy of the school division policies, required by this section, including the Student Conduct Policy, shall be posted on the division's website and shall be available to employees and to the public. School boards shall ensure that printed copies of such policies are available as needed to citizens who do not have online access.

E. An annual announcement shall be made in each division at the beginning of the school year and, for parents of students enrolling later in the academic year, at the time of enrollment, advising the public that the policies are available in such places.

§ 22.1-253.13:8. Compliance.

The Standards of Quality prescribed in this chapter shall be the only standards of quality required by Article VIII, Section 2 of the Constitution of Virginia.

Each local school board shall provide, as a minimum, the programs and services, as provided in the Standards of Quality prescribed above, with state and local funds as apportioned by the General Assembly in the appropriation act and to the extent funding is provided by the General Assembly.

Each local school board shall report its compliance with the Standards of Quality to the Board of Education annually. The report of compliance shall be submitted to the Board of Education by the chairman of the local school board and the division superintendent.

Noncompliance with the Standards of Quality shall be included in the Board of Education's annual report to the Governor and the General Assembly as required by § 22.1-18.

As required by § 22.1-18, the Board of Education shall submit to the Governor and the General Assembly a report on the condition and needs of public education in the Commonwealth and shall identify any school divisions and the specific schools therein that have failed to establish and maintain schools meeting the existing prescribed Standards of Quality.

The Board of Education shall have authority to seek school division compliance with the foregoing Standards of Quality. When the Board of Education determines that a school division has failed or refused, and continues to fail or refuse, to comply with any such Standard, the Board may petition the circuit court having jurisdiction in the school division to mandate or otherwise enforce compliance with such standard, including the development or implementation of any required corrective action plan that a local school board has failed or refused to develop or implement in a timely manner.

Appendix E: Summary of Comments

Summary of Comments from First Public Comment Period

May 1, 2009 through July 31, 2009

General

- Continue to recommend the staffing standards that have been proposed by the Board, but have not been funded by the General Assembly.
- Seek full funding of the Standards of Quality (SOQ). Reject any attempts to cut state funding.
- Oppose the proposal to adopt a cap on the number of support positions.
- Resist efforts to enforce personnel support ratios that are based solely no cost-savings and not on evidence of their utility and contribution to the educational enterprise.
- Establish an instructional staffing baseline reflective of prevailing practices.
- Oppose lowering the Standards of Quality in any way.
- Prioritize mandates placed on local school divisions based what is truly core to a school division's mission.
- Consider taking flexibility concept further by asking how specific some of the standards need to be.
- Consider the Fairfax County School Board's advocacy positions on the SOQ that were in its 2009 Legislative Program.
- Take time to gather information documenting current needs and practices so that the SOQ will recognize the need for more SOQ-funded instructional positions.
- Do an in depth analysis of the data to determine if different ratios are necessary for differing school circumstances or different sized school systems.
- Conduct a complete and comprehensive review of the SOQ in conjunction with the Joint Legislative Audit and Review Commission (JLARC) of support staff positions with the objective of maximizing educational opportunities for Virginia's students.

Principals/Assistant Principals

- Require a full-time principal for every school.
- Require principals to be employed on a 12 month basis.
- Make the minimum number of students required for a principal or assistant principal at an elementary school the same as for the middle and the high school.
- Increase the elementary school assistant principal staffing ratio from 900 students to 1 assistant principal to 400 students to 1 principal.
- Do not supplant an assistant principal position by specifying that one assistant principal in each school function as a data coordinator.

Nurses

- Increase the standard for nurses.
- Require one Registered Nurse (RN) or Licensed Practical Nurse (LPN) in each school.
- Set the following staffing ratios for nurses in all schools: at least one half-time registered nurse to 299 students; at least one full-time registered nurse at 300 students; at least one half-time registered nurse for each additional 500 students over 1,000.

Reading Specialists

- Require a full time reading specialist in each school.
- Require additional reading services in certain schools based on a weighted formula.

Special Education

- Review the SOQ and funding mechanism for special education to ensure staffing patterns fit what is needed to implement current practices.
- Review the SOQ and funding mechanism to ensure that school division efforts to provide students with disabilities access to the general education curriculum are not hindered by funding incentives based on placement.
- Include caseload size for teachers of the vision impaired.

School Counselors

- Resist any effort to decrease funding of support personnel and no allow such things as testing and other duties to be given to the counselor which would further inhibit services to students.
- Continue to maintain a required school counselor/student ratio in the SOQ.
- Current ratio for school counselors is too high. Maintain a counselor/student ratio that is reasonable.
- Include qualified guidance personnel.

Gifted Education

- Require local school boards to employ one full-time equivalent position to plan, implement and evaluate gifted education services to ensure compliance with the Board's gifted education regulations. This instructional supervisor must be highly trained in gifted education as required by the licensure requirements for gifted education.
- Require local school boards to employ one full-time equivalent resource teacher position per 1,000 students in grades K-12. This resource teacher will be highly trained in gifted education as required by licensure regulations and their duties will be defined by each school division's comprehensive local plan.

English as a Second Language (ESL) Teachers

- Increase state funding for ESL teachers from 17 teachers per 1,000 students to 30 teachers per 1,000 students.

Data Coordinators

- Include one data coordinator for each school within the school divisions.
- Include data coordinators and/or testing coordinators.

School Psychologists

- School psychologists should be included in the SOQ.
- Include at least one psychologist for up to 2,000 students.
- Require school divisions to employ trained psychologists who are licensed by the Board of Education.

Summary of Comments from Second Public Comment Period

September 15 through October 2, 2009

General Funding and Support Staff

- Oppose permanent cuts to state funding for education.
- Revise the SOQ to require schools to provide for a minimum of one hour of planning time each day for all primary and elementary classroom teachers.
- Restore full funding and increase support for K-12 public education in Virginia.
- Support the educational policy issued September 17 to keep education strong for our students.
- Oppose capping the number of school support positions.
- Encourage increasing limited funds to those areas directly supporting instruction.
- An honest rebenchmarking figure with no support cap should be conveyed to the Governor and to the General Assembly.
- Support appropriateness of establishing ratio standards for individual categories of support personnel.
- Services such as counseling, attendance, nursing, custodians, school social workers, psychologists, and technology staff are essential to student education and welfare.
- Support the Board priority for the unfunded SOQ recommendations.
- Support codifying some of the staffing ratios that are funded in the Appropriation Act.
- Support greater partnerships with schools, parents, and community.
- Programs should be examined for efficiency and effectiveness.
- Request a separation in the term "support services" of those who provide direct services to students and those who provide an indirect service, i.e. school nurses, school social workers, school psychologists versus guidance administrative positions, homebound administrative, and other support positions, i.e. operation and maintenance.
- The proposed reduction in state funding for support staff would be a permanent change in how the state funds education, reducing the state's investment in students by $893 million on 2010-12.
- Reducing the support staff will have a tremendous impact on the 84,345 Limited English Proficient (LEP) students currently enrolled in Virginia's public schools.
- Adequate funding allocated to high quality teachers working with support staff will serve as a strong foundation to prepare students for success.
- Prescribe standards that maintain the high quality of education we have in Virginia.
- Permanent changes to staffing ratios will negatively impact K-12 programs for many years.
- If the state wants to develop staffing standards for support positions, then a proper study and analysis is recommended.
- The Board should enhance the standards to reflect the actual educational practice that has brought about the improvements and is supported by research, rather than reducing funding.

Nurses

- Examine the category for school nurses; school nursing is an area of increased need.
- Include a ratio for school nurses of one nurse for every 750 students in the SOQ.

Reading Specialists

- The goal continues to be the inclusion of reading specialists in the SOQ at a ratio of one to 1,000 students.
- Reading specialists are just as necessary as other support personnel.
- Flexibility in the employment of reading specialists with funds outside of the SOQ is appreciated, but additional funding is optimal.
- Continue to request the inclusion of reading specialists in the SOQ and funding at a ratio of one reading specialist per 1,000 students.

Special Education

- Support current funding practice for special education students.

School Counseling Programs

- Do not eliminate or reduce school counselor positions.
- Concerns are voiced that there is the possibility of counselor positions being eliminated.
- Without the guidance and counseling support personnel, the ability of professional school counselors to ensure the academic success of all students will be severely hampered.

Gifted Education

- Support the proposed staffing ratio for gifted resource teachers.
- The Board should maintain a high commitment to students in the gifted and talented population.
- Support staffing for gifted education in addition to and not in lieu of the current language of the Standards of Quality in Standard 2, Section D.
- Require local school boards to employ a minimum of one full-time equivalent position to plan, implement and evaluate gifted education services. This instructional supervisor must be highly trained in gifted education as required by the licensure requirements for gifted education.
- Require local school boards to employ one full-time equivalent resource teacher per 1,000 students in grades K-12. This resource teacher must be highly trained in gifted education as specified in the licensure requirements for the gifted education add-on endorsement and their duties must be defined by each school division's comprehensive local plan.

English as a Second Language (ESL)

- Consideration needs to be given to adding language to support an increase in funding of ESL teachers.
- Requests an increase in the staffing ratio to 30 teachers for every 1,000 students and two pupil personnel positions for every 1,000 students.
- Appreciates the recommended changes to allow flexibility in supplementing the funding proposed to support a ratio of 17 teachers to 1,000 people. However, the Virginia ESL Supervisors' Association (VESA) recommends an increase in funding to provide more support for English language learners.
- Consideration needs to be given to funding the required annual assessment of English language proficiency.

School Psychologists

- Include a ratio of at least one psychologist for every 2,000 students in the SOQ.
- Require school divisions to employ school counselors who are licensed by the Board of Education and who are trained in observing students in their environment, consulting with teachers, developing recommendations and implementing follow-up.

School Libraries

- Do not cut positions in school libraries, including clerical personnel.
- A full-time library aide is needed in every school.
- There is concern about the removal of the requirement for clerical staff in a high school library of 750 students.
- The staffing ratios for library media specialists and technology support personnel should be updated and increased to reflect the greater demand of implementing initiatives such as electronic textbooks and digital instructional materials as well as providing professional development support to Virginia's teachers.

Technology

- Keep the current state formula and funding for technology support and technology resource teacher positions.
- Do not eliminate the technology specialist position.
- Oppose any reduction in staffing ratios for technology/media support personnel.
- Oppose the proposal that would permit school divisions to use state and local funds for instructional technology resource teachers to employ a data coordinator position, an instructional technology resource teacher, or a data coordinator/instructional technology resource teacher blended position.
- Staffing ratios for library media specialists and technology support personnel should be updated and increased to reflect the greater demand of implementing initiatives such as electronic textbooks and digital instructional materials as well as providing professional development and support to Virginia's teachers.

- Virginia Society for Technology in Virginia (VSTE), a 5,500 member organization, supports the updating of technology staffing ratios to reflect the increased role of technology in instruction and assessment.

Career and Technical Education

- Any changes to staff ratios in career and technical education should not only reflect the needs of the schools, but also the needs of industry.

Speech Language Pathology Services

- Lower the caseload for speech language pathologists from 68 to 60.

Music, Art and Physical Education

- Require at a minimum that all elementary schools are staffed with one full-time licensed art teacher, one full-time licensed music teacher, and one full-time licensed physical education teacher.

Draft Policy Directives Adopted by the Board of Education on September 17, 2009

- Request that the Board advocate against any structural changes to the SOQ that result in decreased state funding for K-12 public education.
- Support the draft policy directive that would enhance the SOQ so that the basic foundation program for K-12 public education reflects a comprehensive educational program of the highest quality.
- Support the draft policy directive to advocate against permanent structural changes to the SOQ that results in decreased funding for K-12 public education.
- Support the draft policy directive regarding a principal in every school and increasing the number of assistant principals in schools with the greatest need.
- Support the draft policy directive to include gifted, special education, and career and technical education staffing ratios and certain incentive programs in the SOQ.
- Support the draft policy directive to set guidelines for alternative education.
- Oppose the draft policy directive to prioritize outstanding SOQ recommendations.
- Do not support the proposed changes to provide flexibility that would permit local school divisions to use the state and local funds for instructional technology resource teachers to employ a data coordinator position, an instructional technology resource teacher position, or a data coordinator/instructional resource teacher blended position.
- Support allowing school divisions flexibility in hiring specialists in reading, mathematics, and ESL, in deploying assistant principals to schools with the greatest need, and in using funds for support services to provide additional instructional services.
- Appreciates the recommended changes to allow flexibility in supplementing the funding proposed to support a ratio of 17 teachers to 1,000 people. However, the Virginia ESL Supervisors' Association (VESA) recommends an increase in funding to provide more support for English language learners.

- Supports the recommendation in the consultant report, dated September 2009, to eliminate the "cliffs" for instructional support positions.

Draft Changes to the SOQ

- Do not support the proposed language change to Standard 1 regarding early reading intervention services because it will result in increased testing, increased reporting requirements, does not recognize other local assessment options that may be proven effective, and will result in redirecting staff to non-instructional purposes.
- Does not support the proposed language change to Standard 1 regarding early mathematics intervention services because it is inappropriate for grades 6 and 7 and will result in increased testing, increased reporting requirements, and directing staff to non-instructional purposes. In addition, it is unfunded.
- Support the language changes to Standard 2.D.1. (page 7 of the proposed draft) – the inclusion of the 58 teachers per 1,000 student ratio.
- Support the language changes to Standard 2.D.1. (pages 7 and 8 of the proposed draft) that add special education positions and gifted education positions to the SOQ.
- Endorse the two recommendations of the Virginia Association for the Gifted for a minimum of one full-time equivalent position for planning, implementing and evaluating gifted education services and one full-time equivalent resource teacher per 1,000 students in grades K-12 in addition to and not in lieu of the current language in the SOQ.
- Do not support any of the changes to Standard 2.D.4., page 9 of the proposed draft, (the inclusion of the staffing standards for Career and Technical Education), unless the school division maintains the flexibility currently provided.
- Support changing the ESL ratio from 17 teachers for 1,000 students to 30 teachers per 1,000 students.
- Support the proposed changes to Standard 2.G. on page 10 of the draft (flexibility for reading specialists and the Early Intervention Reading Initiative), Standard 2.H.2. on page 10 (flexibility for assistant principals), Standard 2.J. on page 11 (flexibility language for instructional technology resource teachers and/or data coordinators) and Standard 2.O. on pages 12 and 13 (support position language).
- Supports the provision of early intervention reading and mathematics for students in grades K-3 and supports providing the results of diagnostic testing annually to the Superintendent of Public Instruction.
- Supports the establishment of a minimum number of instructional positions to be funded through the Appropriation Act.
- The SOQ are unclear as to the definition of Level I and Level II services.
- Do not support the requirement for increased staffing for gifted education.
- Clarification is needed regarding the limitation of CTE students to 15 per class with a cap of 18 students for students who are disadvantaged.
- Clarification is needed regarding the limitation on the number of CTE students with disabilities.
- Do not support a requirement to employ only licensed personnel using Algebra Readiness funds.

Appendix F: Rebenchmarking Presentation to the Virginia Board of Education – July 22, 2009

Rebenchmarking of the Direct Aid to Public Education Budget for the 2010-2012 Biennium

Presented to the Board of Education SOQ Committee

July 22, 2009

Kent C. Dickey
Assistant Superintendent for Finance

VIRGINIA DEPARTMENT OF EDUCATION

Briefing Outline

- Overview of Rebenchmarking Process
- Summary of Rebenchmarking Costs
- Analysis of Key Data Inputs Impacting 2010-2012 Rebenchmarked Cost
- Rebenchmarking Summary
- Appendices

Rebenchmarking Process

- The Virginia Constitution requires the Board of Education to formulate Standards of Quality (SOQ) for public schools.
- The General Assembly is charged with revising the SOQ, determining SOQ costs, and apportioning the cost between the state and localities.
- The decision about how much to appropriate for public schools is left to the General Assembly.
- Cost rebenchmarking process for public education funding occurs each odd-numbered year in parallel with the Commonwealth's biennial budget cycle.
- FY10 from the Chapter 781 budget serves as the base year funding against which the 2010-2012 rebenchmarking cost is determined.

Rebenchmarking Process

- **Rebenchmarking updates are technical in nature and do not involve changes in policy or funding methodology, other than those already approved and directed by the General Assembly.**

- **This includes showing the cost of rebenchmarking for the 2010-2012 biennium both with and without the support position funding cap, as required by Item 140, paragraph C.5.k.2), Chapter 781, 2009 Acts of Assembly, which states that the Department of Education:**

  "shall make its calculation for the total cost of rebenchmarking for the fiscal year 2010-2012 biennium to be consistent with the following methodologies: (i) using the 'support position funding cap' methodology change contained in House Bill 1600/Senate Bill 850, as introduced in the 2009 Session; and (ii) using the rebenchmarking methodology which was contained within Chapter 879, from the 2008 Session. The Department of Education shall report the final calculations and related costs derived from each of these methodologies to the Governor, the Chairmen of House Appropriations and Senate Finance Committees, and the Board of Education prior to September 1, 2009."

- **The process updates cost of SOQ and other Direct Aid accounts by reconstructing costs step-by-step using latest data available to recognize changes in costs that have occurred over the preceding biennium.**

- **Costs are projected forward for anticipated enrollment changes, inflation, and other factors.**

Rebenchmarking Process

- Process applies to the Standards of Quality, Incentive, Categorical, and Lottery Funded accounts.
- Funding for SOQ programs is determined primarily by instructional staffing ratios and recognized support costs that are funded on a standard and prevailing cost basis.
- Incentive programs are voluntary and provide additional education funding that goes beyond the levels required to meet the Standards of Quality.
- Categorical programs are generally required by state or federal statutes or federal regulation and target particular needs of specific populations.
- Lottery funding supports additional programs that go beyond the Standards of Quality and includes several programs formerly in the Incentive category.

Rebenchmarking Process

- SOQ accounts represent approximately 91 percent of state Direct Aid funding so they are impacted most by the rebenchmarking process.

- Seven key components of the SOQ funding formula:

  1) Number of students
  2) Staffing ratios for teachers and other funded positions
  3) Salaries of teachers and other funded positions
  4) Fringe benefit rates
  5) Standard and prevailing support costs
  6) Inflation factors
  7) Prevailing federal revenues related to support costs

Rebenchmarking Process

- **Major data elements used in 2010-2012 rebenchmarking calculations:**
  - **Funded instructional and support salaries**
  - **Fall Membership and Average Daily Membership projections**
  - **Special education child count**
  - **Career & Technical Education course enrollment**
  - **SOL failure rates and free lunch eligibility percentage for remedial education**
  - **Base-year expenditure data from 2007-2008 Annual School Report**
  - **Health care premium expenditures**
  - **Nonpersonal inflation factors**
  - **Federal programs revenue**
  - **Prevailing textbooks costs**
  - **Enrollment projections for remedial summer school and English as a Second Language programs**
  - **Updates to division superintendent, school board, school nurse, and pupil transportation costs**

Rebenchmarking Process

Major Inputs that are Fixed for the Biennium:

- Funded Salaries
- Special Education Child Counts
- Original Fall Membership & ADM Projections
- CTE Course Enrollment
- Composite Index
- Head Start Enrollment (for VPI)
- Free Lunch Eligibility Percentage
- SOL Test Scores (for Prevention, Intervention, and Remediation)
- Federal Revenue Deduct (for Support Costs)

Major Inputs that are Updated Annually:

- Enrollment Projections
- Reimbursement Account Projections
- Lottery Revenue Estimates
- Sales Tax Revenue Estimates
- VRS Fringe Benefit Rates (subject to General Assembly action)
- Inflation Factors (subject to General Assembly action)

Rebenchmarking Process

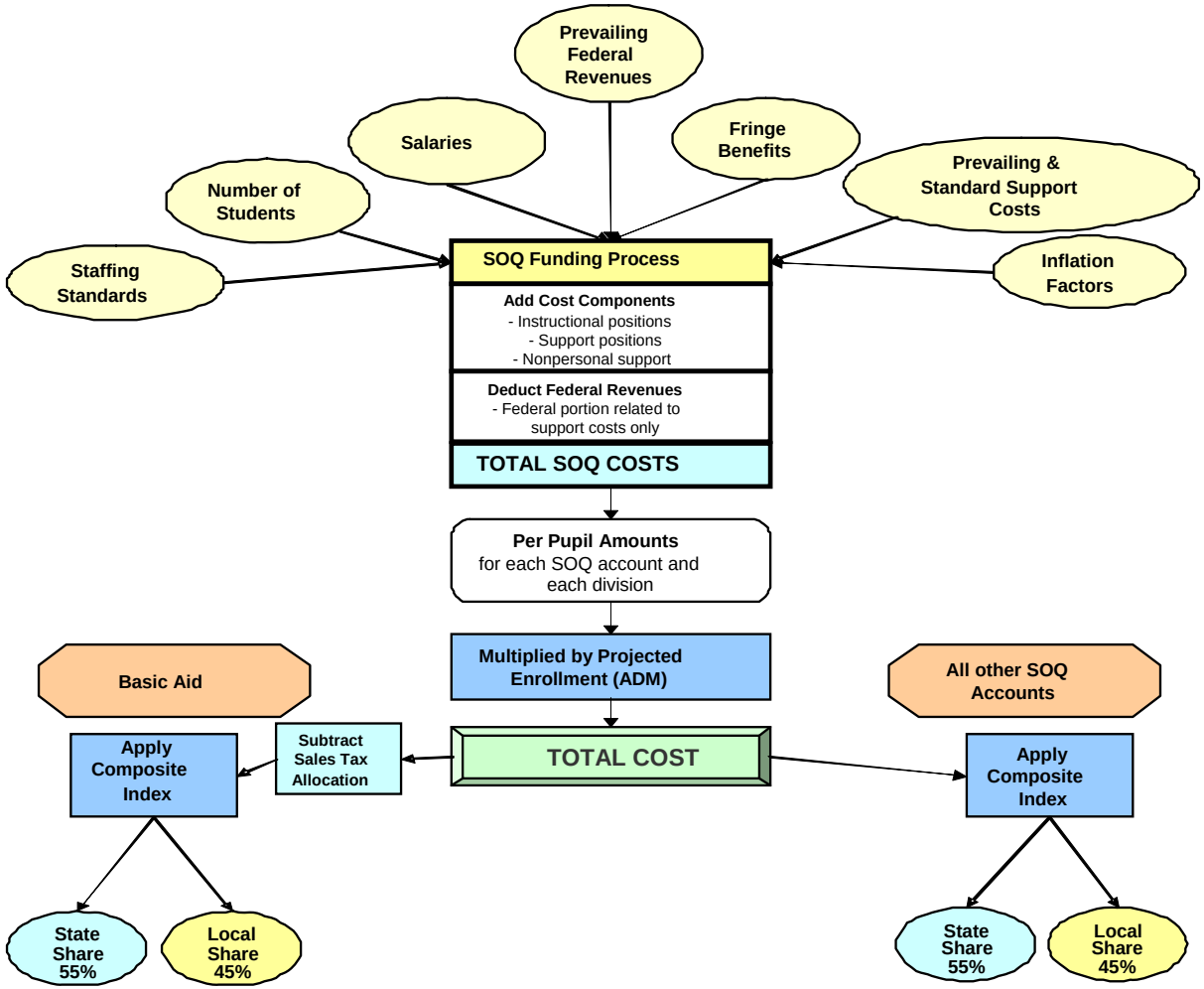
2010-2012 Direct Aid to Public Education Budget
Summary of Major Data Elements Used in 2010-2012 Rebenchmarking Calculations

	FY 2010	FY 2011 & FY2012
A. Student Enrollment Data		
Fall Membership	2006-2007	2008-2009
Special Education Child Count	December 1, 2006	December 1, 2008
Vocational Education Child Count	2006-2007	2008-2009
SOQ Prevention, Intervention and Remediation *(SOL English & Math Test Scores)*	Three-year average (2003-04; 2004-05; 2005-06)	Three-year average (2005-06; 2006-07; 2007-08)
SOQ Prevention, Intervention and Remediation *(Free Lunch Eligibility Data)*	Three-year average (October 2004, 2005, 2006)	Three-year average (October 2006, 2007, 2008)
B. Expenditure Data (funded salaries and support costs)	2005-2006 Annual School Report	2007-2008 Annual School Report
C. Fringe Benefit Rates		
Instructional VRS Retirement (Including Retiree Health Care Credit)	9.85%	9.85% (Update in Fall 2009)
Non-instructional VRS Retirement	7.62%	7.62% (Update in Fall 2009)
Social Security/Medicare	7.65%	7.65%
Group Life Insurance	0.27%	0.27% (Update in Fall 2009)
Health Care Premium *(Funded per position amount with Inflation)*	$5,188	$5,793
D. Composite Index *(Base-Year Data)*	2005	2007 (Update in Fall 2009)
E. Funded Non-Personal Support Inflation Factors *(Unweighted average)*	5.39%	0.52%
F. Textbooks *(Funded Per Pupil Amount with Inflation)*	$118.52	$76.01
G. Average Daily Membership Projections *(Original)*	1,203,367 (FY 2010)	1,212,501 (FY 2011), 1,221,831 (FY 2012)

Rebenchmarking Process

- **The following data inputs are not available for the Board of Education budget but will be updated and included in the 2010-2012 budget as introduced by the Governor in December 2009:**
  - **Revised composite index for the 2010-2012 biennium**
  - **Final enrollment projections**
  - **Revised Lottery revenue projections**
  - **Revised sales tax revenue projections**
  - **Revised fringe benefit rates from VRS**
- **State cost of 2010-2012 rebenchmarking is significantly lower than for the 2008-2010 biennium.**

Rebenchmarking Process for SOQ



2010-2012 Rebenchmarking Costs

Step #	Rebenchmarking Step	FY 2011 Change	FY 2012 Change	2010-2012 Total
1	Reset Support Personal Inflation Factors to 0% in SOQ Model	(29,271,364)	(29,271,364)	(58,542,728)
2	Update Fall Membership and Average Daily Membership	43,034,347	46,626,632	89,660,979
3	Update Special Education Child Count to December 1, 2008	(15,359,977)	(15,354,703)	(30,714,680)
4	Update Career & Technical Education Course Enrollment to Beginning School Year 2008	886,468	811,315	1,697,783
5	Update SOQ Remediation SOL Test Scores and Free Lunch Percentage	730,062	859,664	1,589,726
6	Update SOQ Gifted, Support Technology, and Instructional Technology Positions	(523,374)	(399,281)	(922,655)
7	Update SOQ Funded Instructional Salaries	(17,519,246)	(17,506,159)	(35,025,405)
8	Update Health Care Premium (without inflation)	35,332,715	35,504,569	70,837,284
9	Update Prevailing Textbook Per Pupil Amount (without inflation)	(25,199,060)	(25,268,945)	(50,468,005)

2010-2012 Rebenchmarking Costs

Step #	Rebenchmarking Step	FY 2011 Change	FY 2012 Change	2010-2012 Total
10	Reset Nonpersonal Inflation Factors to 0% in SOQ Model	(64,712,946)	(64,712,946)	(129,425,892)
11	Update Base-Year Expenditures (ASRFIN) for Support Personal Costs to FY08	52,512,011	52,768,217	105,280,228
12	Update Base-Year Expenditures (ASRFIN) for Support Nonpersonal Costs to FY08	38,874,888	35,313,121	74,188,009
13	Update Support Positions Cap	(12,452,565)	(12,885,798)	(25,338,363)
14	Update Federal Revenue Deduct Per Pupil Amount	2,177,284	2,130,997	4,308,281
15	Update Pupil Transportation Costs	33,907,430	46,632,633	80,540,063
16	Update Costs for Superintendents, School Boards, and School Nurses (w/o inflation)	5,781,638	5,578,808	11,360,446
17	Update Nonpersonal Inflation Factors	8,078,551	8,048,194	16,126,745
18	Update Personal Inflation Factors	0	0	0

2010-2012 Rebenchmarking Costs

Step #	Rebenchmarking Step	FY 2011 Change	FY 2012 Change	2010-2012 Total
19	Update English as a Second Language Enrollment Projections	2,813,877	5,934,217	8,748,094
20	Update Remedial Summer School Per Pupil Amount and Enrollment Projections	44,967	545,811	590,778
21	Update Incentive Accounts (See Appendix B for Account Listing)	695,170	1,045,760	1,740,930
22	Update Categorical Accounts (See Appendix B for Account Listing)	(95,277)	2,508,067	2,412,789
23	Update Lottery Funded Accounts (See Appendix A for Account Listing)	0	0	0
Total Rebenchmarking State Cost *(with support cap)**		**$59,735,599**	**$78,908,809**	**$138,644,408**
24	Remove Support Positions Funding Cap	$376,075,632	$378,226,051	$754,301,683
Total Rebenchmarking State Cost *(without support cap)**		**$435,811,231**	**$457,134,860**	**$892,946,091**

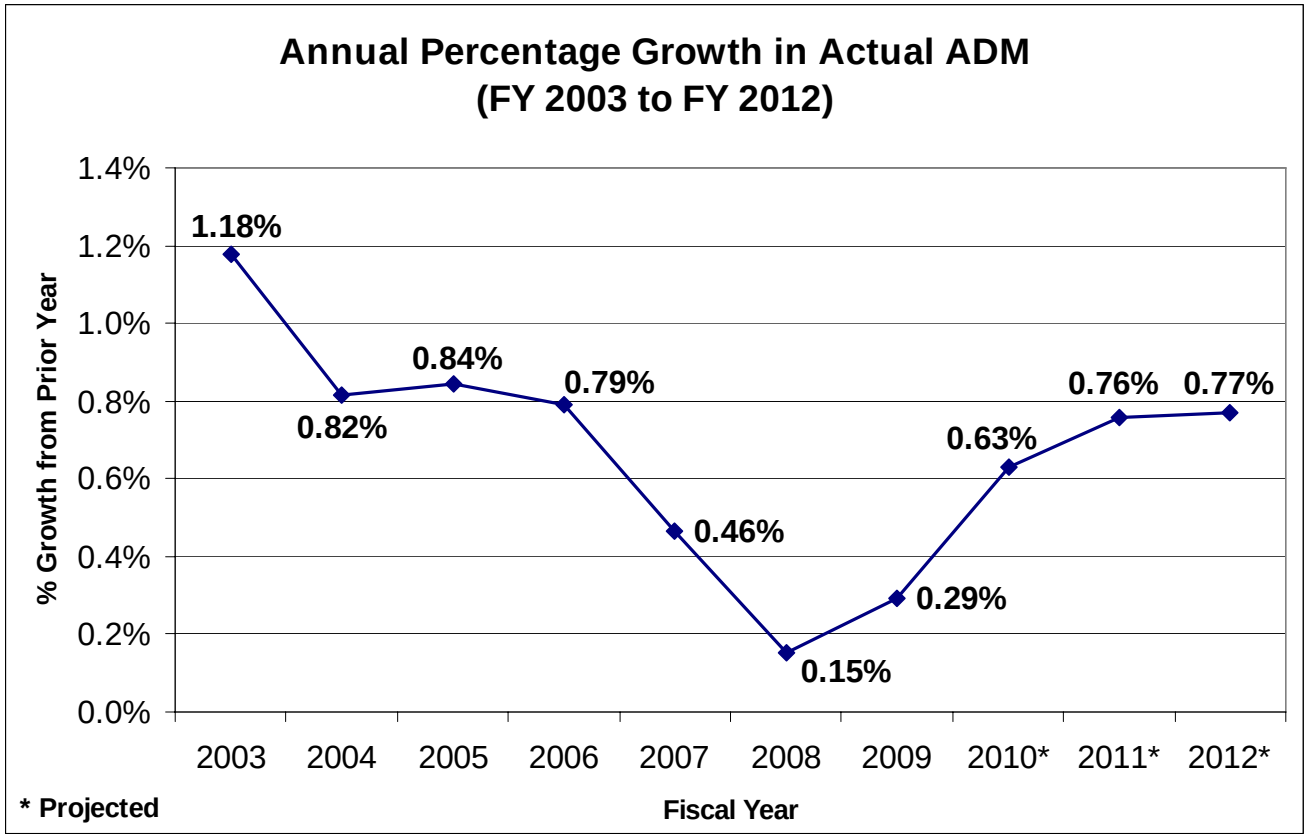
*** Pursuant to Item 140, paragraph C.5.k.2), Chapter 781, 2009 Acts of Assembly,** the Department of Education *"shall make its calculation for the total cost of rebenchmarking for the fiscal year 2010-2012 biennium to be consistent with the following methodologies: (i) using the 'support position funding cap' methodology change contained in House Bill 1600/Senate Bill 850, as introduced in the 2009 Session; and (ii) using the rebenchmarking methodology which was contained within Chapter 879, from the 2008 Session. The Department of Education shall report the final calculations and related costs derived from each of these methodologies to the Governor, the Chairmen of House Appropriations and Senate Finance Committees, and the Board of Education prior to September 1, 2009."*

Analysis of Key Data Inputs Impacting 2010-2012 Rebenchmarked Cost

- Enrollment
- Special Education Child Count
- SOL Failure Rates
- Free Lunch Eligibility
- Prevailing and Funded Salaries
- Health Care Premium
- Textbook Expenditures
- Support Position Cap
- Federal Revenue Deduct
- Inflation Factors

Enrollment

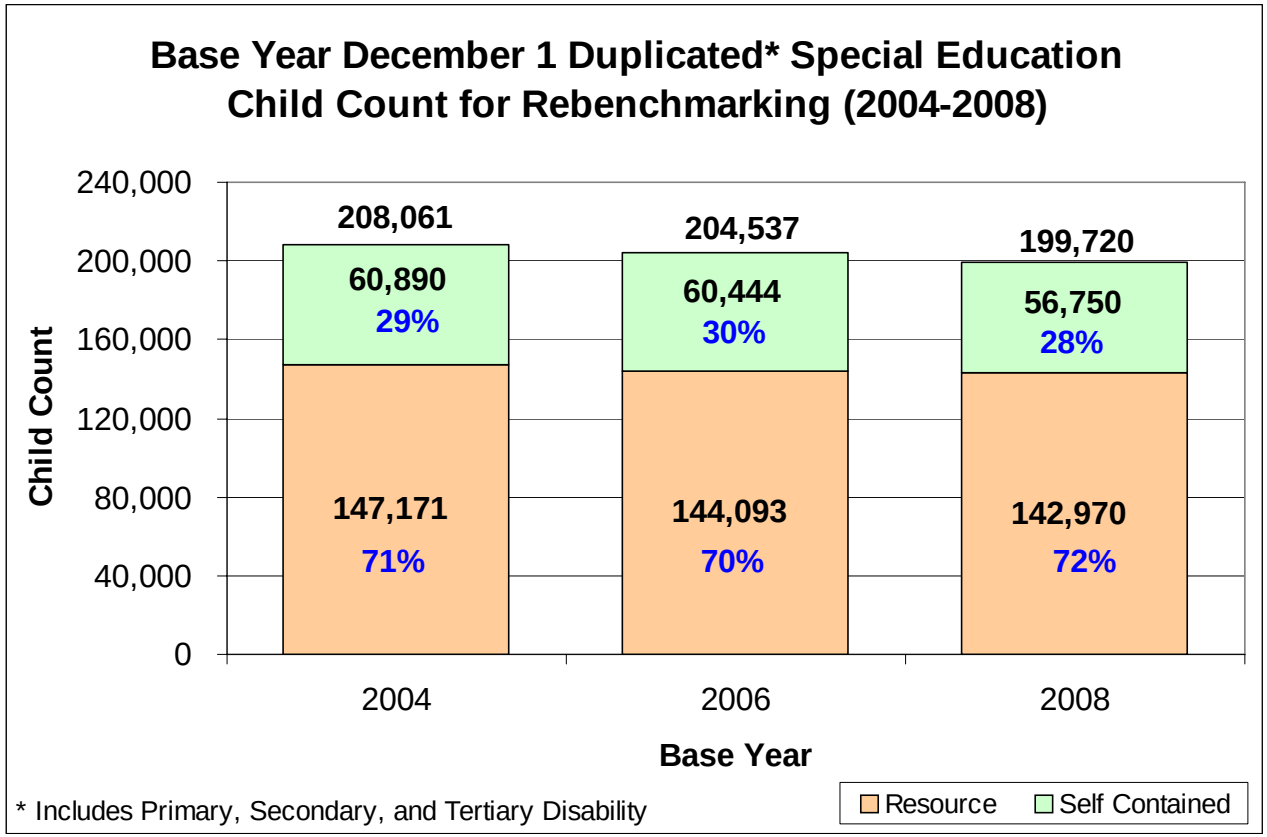
Step #	Rebenchmarking Step	FY 2011 Change	FY 2012 Change	2010-2012 Total
2	Update Fall Membership and Average Daily Membership	43,034,347	46,626,632	89,660,979



VIRGINIA DEPARTMENT OF EDUCATION

Special Education Child Count

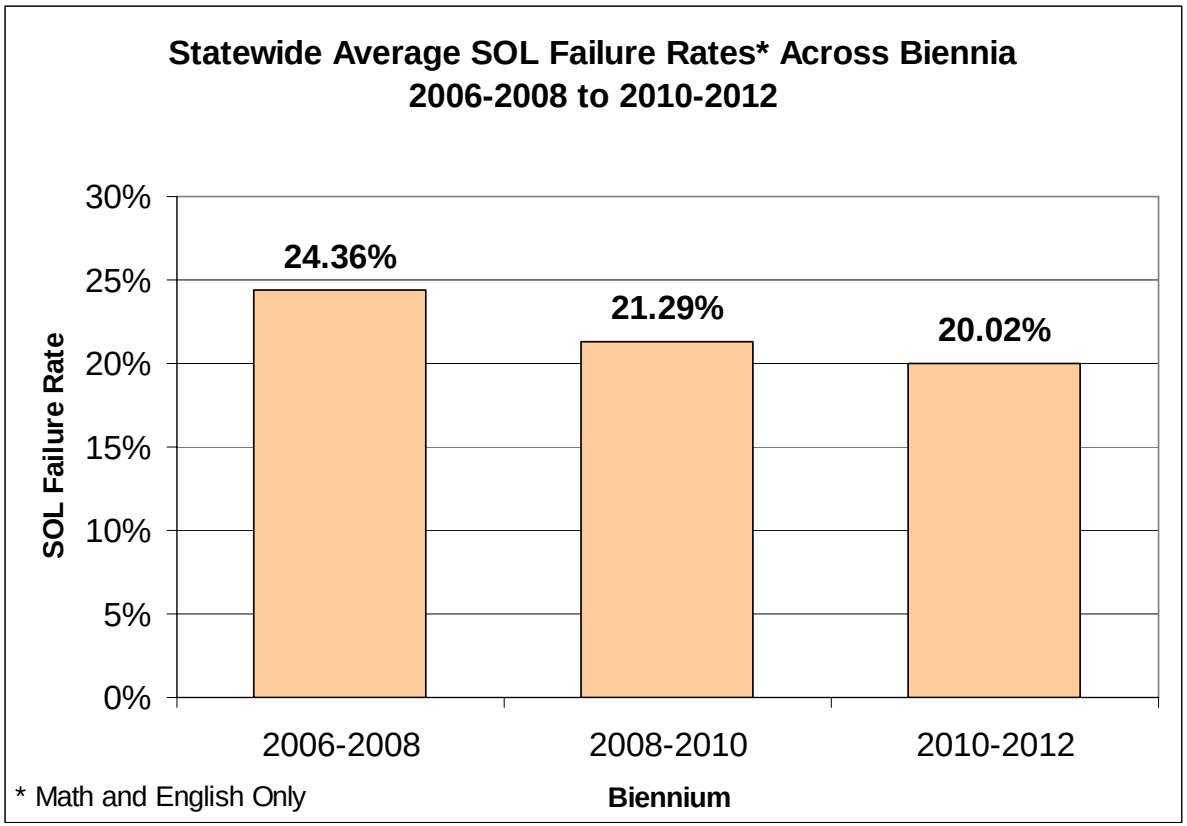
Step #	Rebenchmarking Step	FY 2011 Change	FY 2012 Change	2010-2012 Total
3	Update Special Education Child Count to December 1, 2008	(15,359,977)	(15,354,703)	(30,714,680)



VIRGINIA DEPARTMENT OF EDUCATION

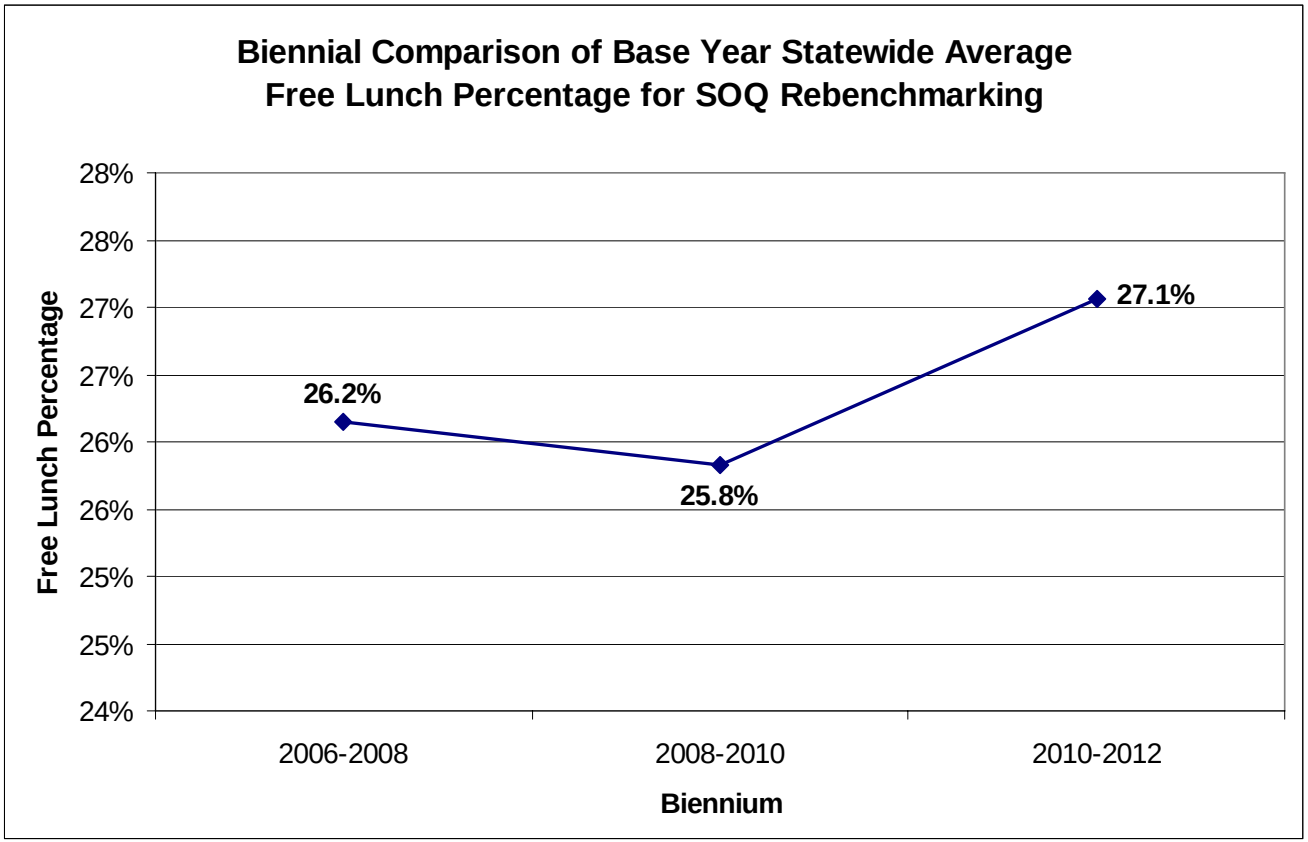
SOL Failure Rates

Step #	Rebenchmarking Step	FY 2011 Change	FY 2012 Change	2010-2012 Total
5	Update SOQ Remediation SOL Test Scores and Free Lunch Percentage	730,062	859,664	1,589,726



Free Lunch Eligibility

Step #	Rebenchmarking Step	FY 2011 Change	FY 2012 Change	2010-2012 Total
5	Update SOQ Remediation SOL Test Scores and Free Lunch Percentage	730,062	859,664	1,589,726



Instructional Salaries

Step #	Rebenchmarking Step	FY 2011 Change	FY 2012 Change	2010-2012 Total
7	Update SOQ Funded Instructional Salaries	(17,519,246)	(17,506,159)	(35,025,405)

Comparison of Prevailing SOQ Instructional Salaries Across Biennia
2006-2008 to 2010-2012 (No Adjustment for State Increases)

Instructional Position	2006-2008 Prevailing Salary (2003-04 Data)	2008-2010 Prevailing Salary (2005-06 Data)	Percent Increase	2008-2010 Prevailing Salary (2005-06 Data)	2010-2012 Prevailing Salary (2007-08 Data)	Percent Increase
Elementary Teachers	$38,525	$41,390	7.4%	$41,390	$43,904	6.1%
Elementary Asst. Principals	$54,201	$58,398	7.7%	$58,398	$62,383	6.8%
Elementary Principals	$66,817	$72,124	7.9%	$72,124	$76,766	6.4%
Secondary Teachers	$40,403	$43,158	6.8%	$43,158	$46,090	6.8%
Secondary Asst. Principals	$58,043	$62,460	7.6%	$62,460	$66,658	6.7%
Secondary Principals	$73,076	$78,721	7.7%	$78,721	$84,564	7.4%
Instructional Aides	$13,426	$14,820	10.4%	$14,820	$16,104	8.7%

Instructional Salaries

Step #	Rebenchmarking Step	FY 2011 Change	FY 2012 Change	2010-2012 Total
7	Update SOQ Funded Instructional Salaries	(17,519,246)	(17,506,159)	(35,025,405)

Comparison of Funded SOQ Instructional Salaries Across Biennia
2004-2006 to 2010-2012 (Adjusted for State Increases)

Instructional Position	2004-2006 FUNDED SALARY	2006-2008 FUNDED SALARY	Percent Increase	2006-2008 FUNDED SALARY	2008-2010 FUNDED SALARY	Percent Increase	2008-2010 FUNDED SALARY	2010-2012 FUNDED SALARY	Percent Increase
Elementary Teachers	$37,534	$39,681	5.7%	$39,681	$44,337	11.7%	$44,337	$43,904	(1.0%)
Elementary Asst. Principals	$52,546	$55,827	6.2%	$55,827	$62,556	12.1%	$62,556	$62,383	(0.3%)
Elementary Principals	$64,562	$68,822	6.6%	$68,822	$77,259	12.3%	$77,259	$76,766	(0.6%)
Secondary Teachers	$39,641	$41,615	5.0%	$41,615	$46,230	11.1%	$46,230	$46,090	(0.3%)
Secondary Asst. Principals	$57,365	$59,784	4.2%	$59,784	$66,907	11.9%	$66,907	$66,658	(0.4%)
Secondary Principals	$70,945	$75,268	6.1%	$75,268	$84,326	12.0%	$84,326	$84,564	0.3%
Instructional Aides	$12,802	$13,828	8.0%	$13,828	$15,875	14.8%	$15,875	$16,104	1.4%

Support Salaries

Step #	Rebenchmarking Step	FY 2011 Change	FY 2012 Change	2010-2012 Total
11	Update Base-Year Expenditures (ASRFIN) for Support Personal Costs to FY08	52,512,011	52,768,217	105,280,228

Comparison of Prevailing SOQ Support Salaries Across Biennia 2006-2008 to 2010-2012 (No Adjustment for State Increases)

Support Position	2006-2008 Salary	2008-2010 Salary	Percent Increase	2008-2010 Salary	2010-2012 Salary	Percent Increase
Superintendent	$108,113	$120,166	11.15%	$120,166	$132,141	9.97%
Assistant Superintendent	$91,948	$98,878	7.54%	$98,878	$106,021	7.22%
School Nurse	$29,198	$31,261	7.06%	$31,261	$33,378	6.77%
Instructional Professional	$56,637	$59,910	5.78%	$59,910	$64,105	7.00%
Instructional Technical/Clerical	$23,300	$25,763	10.57%	$25,763	$28,232	9.58%
A&H Administrative	$46,062	$49,543	7.56%	$49,543	$54,139	9.28%
A&H Technical//Clerical	$21,357	$22,422	4.99%	$22,422	$24,558	9.53%
O&M Professional	$56,647	$61,899	9.27%	$61,899	$67,823	9.57%
O&M Technical/Clerical	$22,681	$24,451	7.81%	$24,451	$26,888	9.97%
School Board Member	$3,453	$4,134	19.72%	$4,134	$4,639	12.21%
Administration Administrative	$62,967	$64,420	2.31%	$64,420	$68,991	7.10%
Administration Technical/Clerical	$31,560	$34,275	8.60%	$34,275	$36,629	6.87%
Technology Professional	$59,242	$63,397	7.01%	$63,397	$68,808	8.54%
Technology Technical/Clerical	$26,655	$27,968	4.92%	$27,968	$30,411	8.74%
Technology Support Standard	$33,590	$35,439	5.51%	$35,439	$39,705	12.04%
School Based Clerical	$23,383	$24,857	6.30%	$24,857	$29,092	17.04%

Support Salaries

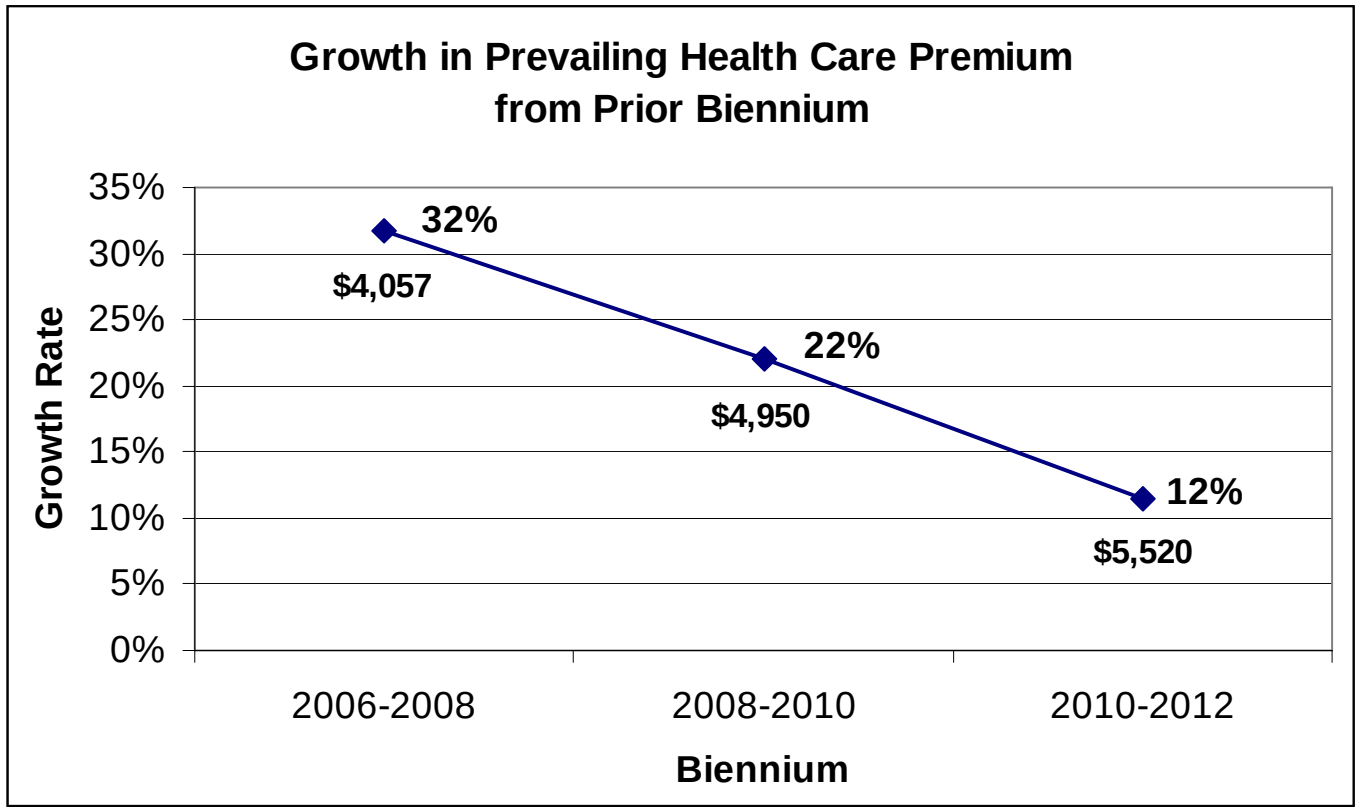
Step #	Rebenchmarking Step	FY 2011 Change	FY 2012 Change	2010-2012 Total
11	Update Base-Year Expenditures (ASRFIN) for Support Personal Costs to FY08	52,512,011	52,768,217	105,280,228

Comparison of Funded SOQ Support Salaries Across Biennia
2006-2008 to 2010-2012 (Adjusted for State Increases)

Support Position	2006-2008 Salary	2008-2010 Salary	Percent Increase	2008-2010 Salary	2010-2012 Salary	Percent Increase
Superintendent	$111,356	$127,484	14.48%	$127,484	$132,141	3.65%
Assistant Superintendent	$94,706	$104,900	10.76%	$104,900	$106,021	1.07%
School Nurse	$30,074	$33,165	10.28%	$33,165	$33,378	0.64%
Instructional Professional	$58,336	$63,558	8.95%	$63,558	$64,105	0.86%
Instructional Technical/Clerical	$23,999	$27,332	13.89%	$27,332	$28,232	3.29%
A&H Administrative	$47,444	$52,560	10.78%	$52,560	$54,139	3.00%
A&H Technical//Clerical	$21,998	$23,788	8.14%	$23,788	$24,558	3.24%
O&M Professional	$58,346	$65,668	12.55%	$65,668	$67,823	3.28%
O&M Technical/Clerical	$23,361	$25,940	11.04%	$25,940	$26,888	3.65%
School Board Member	$3,557	$4,386	23.31%	$4,386	$4,639	5.77%
Administration Administrative	$64,856	$68,343	5.38%	$68,343	$68,991	0.95%
Administration Technical/Clerical	$32,506	$36,362	11.86%	$36,362	$36,629	0.73%
Technology Professional	$61,019	$67,258	10.22%	$67,258	$68,808	2.31%
Technology Technical/Clerical	$27,455	$29,671	8.07%	$29,671	$30,411	2.49%
Technology Support Standard	$34,597	$37,598	8.67%	$37,598	$39,705	5.60%
School Based Clerical	$24,084	$26,371	9.49%	$26,371	$29,092	10.32%

Health Care Premium

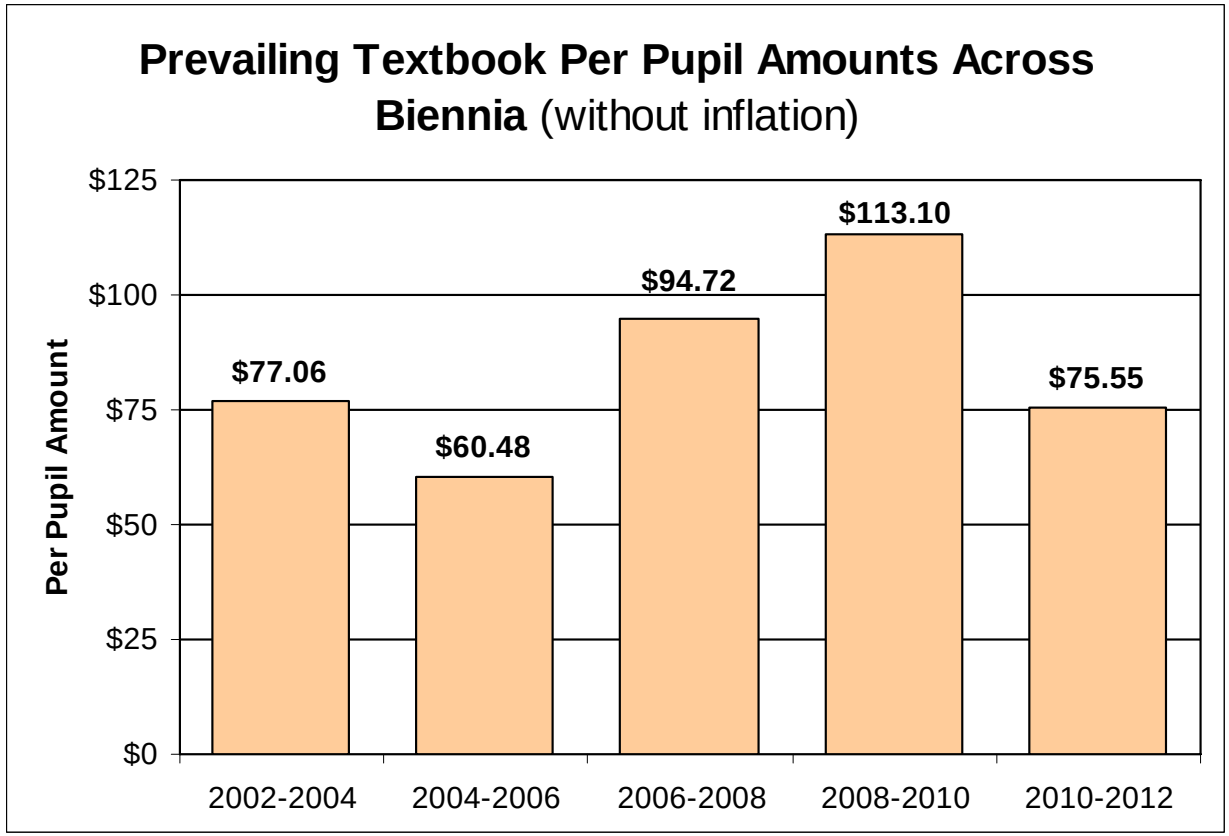
Step #	Rebenchmarking Step	FY 2011 Change	FY 2012 Change	2010-2012 Total
8	Update Health Care Premium (without inflation)	35,332,715	35,504,569	70,837,284



VIRGINIA DEPARTMENT OF EDUCATION

Textbook Expenditures

Step #	Rebenchmarking Step	FY 2011 Change	FY 2012 Change	2010-2012 Total
9	Update Prevailing Textbook Per Pupil Amount (without inflation)	(25,199,060)	(25,268,945)	(50,468,005)



Support Positions Cap

Step #	Rebenchmarking Step	FY 2011 Change	FY 2012 Change	2010-2012 Total
13	Update Support Positions Cap	(12,452,565)	(12,885,798)	(25,338,363)

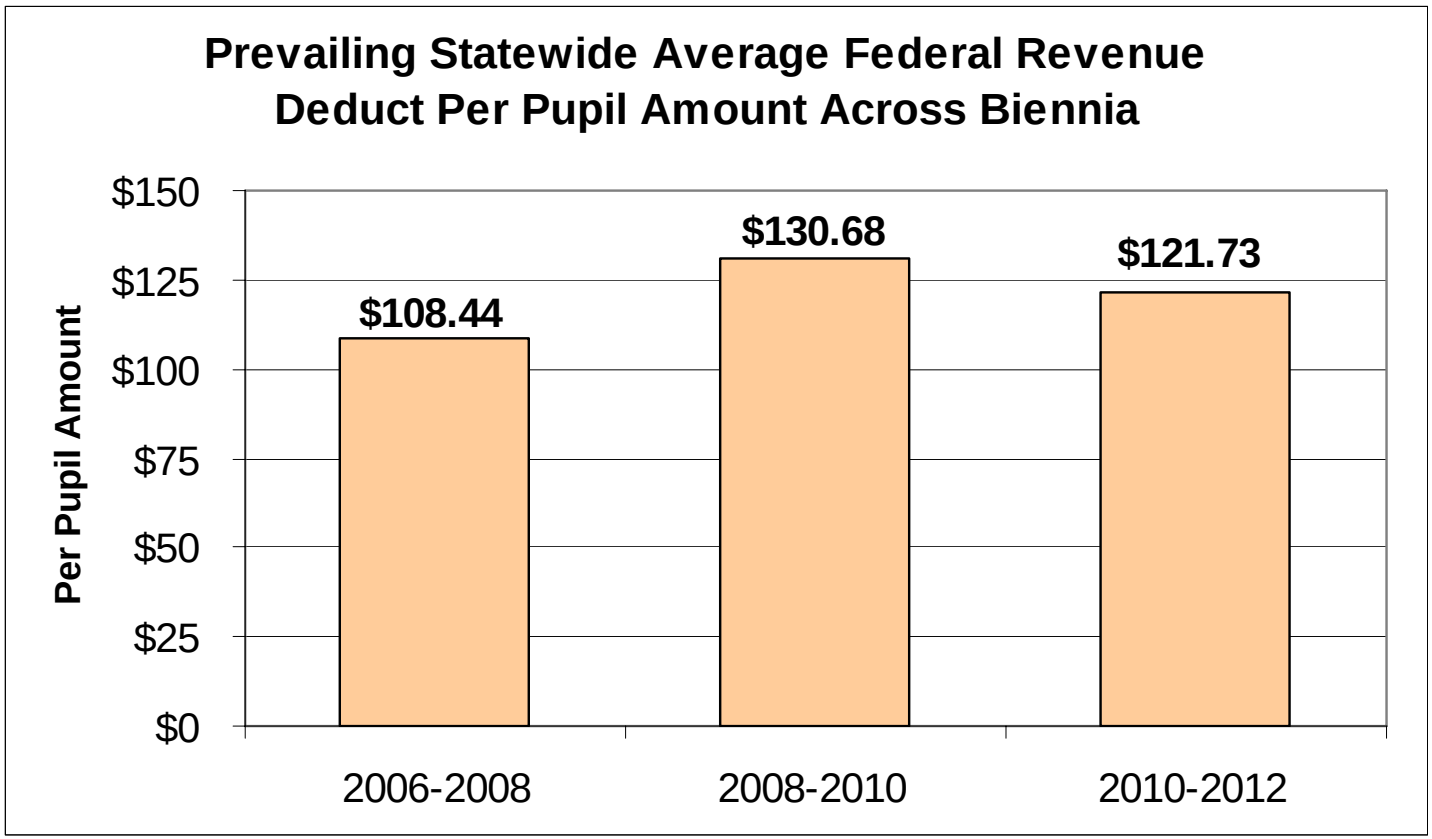
Funded SOQ Support Positions	UNCAPPED FY 2009	CAPPED FY 2010	CAPPED FY 2011	CAPPED FY 2012
Assistant Superintendent	292	183	175	176
Instructional Professional	3,474	2,175	2,138	2,152
Instructional Technical/Clerical	2,912	1,824	1,882	1,895
Attendance & Health Administrative	1,628	1,019	995	1,002
Attendance & Health Technical/Clerical	753	470	519	523
Operation & Maintenance Professional	428	269	251	252
Operation & Maintenance Technical/Clerical	14,305	8,957	8,689	8,746
Administration	859	538	587	590
Administration Technical/Clerical	2,486	1,556	1,513	1,524
Technology Professional	579	362	376	379
Technology Technical/Clerical	292	183	194	195
Technology Support Standard	1,208	1,219	1,211	1,221
School Based Clerical	6,479	4,056	3,652	3,675
Total Funded SOQ Support Positions	**35,695**	**22,811**	**22,181**	**22,329**

[1] For FY 2009, the prevailing number of support positions was not capped. Shown for comparative purposes.

[2] The instructional to support position ratio used for the support position funding cap was rebenchmarked for the 2010-2012 biennium. The ratio changed from 4.03 to 1 for FY 2010 to 4.05 to 1 for the 2010-2012 biennium. The ratio is calculated by taking a three-year average of divisions' ASR instructional positions divided by ASR support positions and then calculating a statewide linear weighted average (LWA) ratio from the division ratios. The LWA ratio is then applied to the generated number of support positions to cap them at the instructional to support ratio. This represents the rebenchmarked cost update and not a permanent change in policy.

Federal Revenue Deduct

Step #	Rebenchmarking Step	FY 2011 Change	FY 2012 Change	2010-2012 Total
14	Update Federal Revenue Deduct Per Pupil Amount	2,177,284	2,130,997	4,308,281



Inflation Factors

Step #	Rebenchmarking Step	FY 2011 Change	FY 2012 Change	2010-2012 Total
17	Update Nonpersonal Inflation Factors	8,078,551	8,048,194	16,126,745

2010-2012 Inflation Factors Applied to Nonpersonal Costs in SOQ Model for the 2010-2012 Biennium			
Inflation Factor	**2008-10 Rates**	**2010-12 Rates**	**Variance**
Operation & Maintenance:			
Utilities	3.34%	(6.43%)	(9.77%)
Communications	5.67%	2.39%	(3.28%)
Insurance	5.56%	0.61%	(4.95%)
Other	5.56%	0.61%	(4.95%)
Fixed Charges:			
Unemployment	5.56%	0.61%	(4.95%)
Workers Comp.	5.56%	0.61%	(4.95%)
Disability Insurance	5.56%	0.61%	(4.95%)
Other Benefits	5.56%	0.61%	(4.95%)
Instructional:			
Classroom Instruction	5.48%	0.36%	(5.12%)
Instructional Support	5.48%	0.31%	(5.17%)
Improvement	5.31%	(0.01%)	(5.32%)
Principal's Office	5.44%	0.26%	(5.18%)
Miscellaneous:			
Administration	5.40%	0.11%	(5.29%)
Attendance & Health	5.46%	0.34%	(5.12%)
Facilities	5.62%	2.73%	(2.89%)
Pupil Transportation	5.11%	(0.19%)	(5.30%)
Contingency Reserve	5.56%	0.61%	(4.95%)
Textbooks	5.56%	0.61%	(4.95%)
Health Care Premium	5.56%	4.96%	(0.60%)

Rebenchmarking Summary

Major Inputs that Decreased Cost Compared to 2008-2010 Biennium:

- Funded Instructional Salaries
- Funded Support Salaries
- Special Education Child Counts
- Statewide Average SOL Failure Rate
- Inflation Factors
- Health Care Premium
- Textbook Expenditures

Major Inputs that Increased Cost Compared to 2008-2010 Biennium:

- CTE Course Enrollment
- Enrollment Projections
- Free Lunch Eligibility
- Federal Revenue Deduct Per Pupil Amount
- Pupil Transportation