

**JOINT LEGISLATIVE AUDIT AND REVIEW COMMISSION  
OF THE VIRGINIA GENERAL ASSEMBLY**

**Review of Elementary  
and Secondary  
School Funding**

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## Preface

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In May 2000, the Joint Legislative Audit and Review Commission (JLARC) directed staff to study funding for elementary and secondary schools in Virginia. State funding for education is provided to help school divisions pay for the costs of the State Standards of Quality (the SOQ) and for other (non-SOQ) costs. The JLARC review identified options for consideration to enhance State support.

The study mandate stemmed in large part from local government concerns that their taxpayers are overburdened with meeting legitimate education costs which are not recognized by State funding practices. In addition, since most State funding for education is provided based on local ability to pay, a lesser role by the State in meeting costs tends to most negatively impact education funding levels in poorer localities. In Virginia, the percentage contribution in FY 2000 to education costs from State funds (including State sales tax, other SOQ funds, and non-SOQ funds) was about 42 percent, ranking Virginia 40<sup>th</sup> in the nation. In contrast, Virginia ranked 13<sup>th</sup> in the average percentage contribution made from local funds.

Regarding operating costs, reasons for the magnitude of local expenditures above levels recognized by State funding practice include: division staffing practices above State standards; cost estimation changes made by the State during the 1990s which dampen SOQ costs; and salary levels above the typical practice of most divisions, offered by a number of Virginia's largest school divisions. Regarding capital costs, despite the availability of State school construction grant funds and some Lottery funds for non-recurring costs, localities still provided more than three dollars for debt service costs for each capital cost dollar provided by the State in FY 2000.

This report provides three option tiers to help structure the way in which the State might enhance its funding of education. The first tier addresses JLARC staff estimates of the costs for fully funding the SOQ. The net State cost increase for this purpose in the 2002-2004 biennium (a two-year cost increase) is about one billion dollars, of which about \$364 million is for routine cost re-basing. Tiers two and three provide additional options for the General Assembly's consideration.

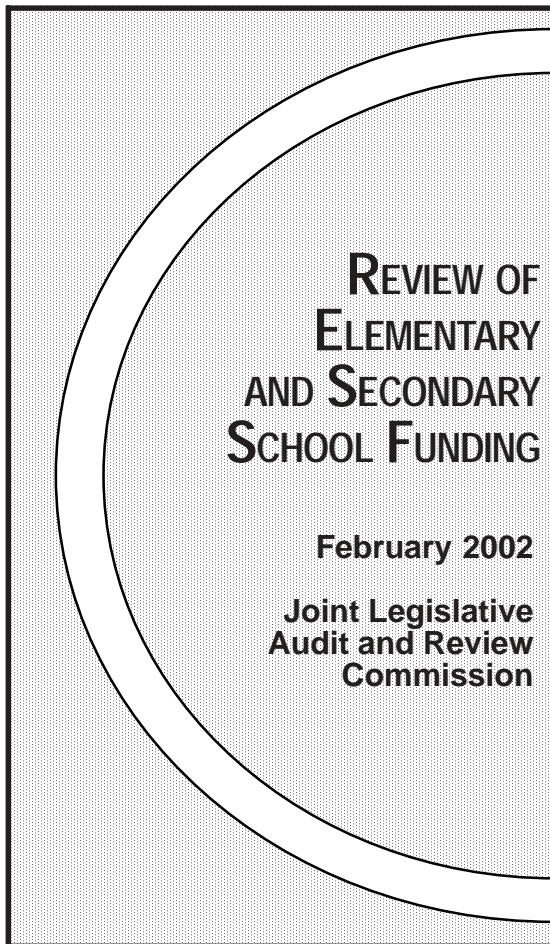
As the study reached completion, the State faced a revenue shortfall. In the short term, the State might not fully fund SOQ cost estimates while addressing concerns about the overall adequacy of its funding support for education. However, for the long term, the State may wish to develop a plan to address full SOQ funding and other education funding issues raised in this report.

On behalf of the Commission, I wish to express our appreciation for the assistance and cooperation provided during the course of this review by the Virginia Department of Education, local governments, and the school divisions.

Philip A. Leone  
Director

February 6, 2002

# JLARC Report Summary



**E**lementary and secondary public education in Virginia is funded by a combination of local, State, and federal funds. With a public school system serving over 1.1 million pupils, the cost for elementary and secondary education in the State is considerable. In FY 2000, the last year for which expenditure data were available within the time frame of this review, approximately \$7.735 billion was spent for operational costs of the system, or an average of about \$6,878 per pupil. In addition, facility costs statewide in FY 2000 were about \$743 million, representing an additional expenditure or debt service commitment in that year of about \$661 per pupil.

The State provides more aid to localities for education than for any other governmental purpose. State payments for public education are largely driven by the State Standards of Quality, or the SOQ. The SOQ framework for State and local support of the public schools is specified in the *Constitution of Virginia*. The SOQ provide minimum requirements that all school divisions must meet. The SOQ therefore represent the State's "foundation" program for all school divisions. Standards are to be set by the Board of Education, subject to revision only by the General Assembly.

Under the Constitution, the General Assembly is given the responsibility to determine the manner in which funds are to be provided to the school divisions for the cost of maintaining an education program meeting the SOQ. The General Assembly establishes the SOQ cost in the Appropriation Act. The General Assembly is also required to determine State and local responsibilities or shares of the cost for the SOQ. Since FY 1993, the State has implemented a policy of paying 55 percent of the shared SOQ cost, as those costs have been established in Appropriation Acts. The composite index, the State's measure of local ability to pay for education which is used to distribute State SOQ funding (for all major SOQ accounts other than the State-appropriated sales tax), is calculated so that the State's aggregate share of SOQ costs after deduction of the State sales tax is about 55 percent.

Local governments may fund education operating costs at levels above the minimum requirements of the SOQ, and the State may also do so as a matter of policy choice. Funding provided by the localities and by the State for operating cost purposes which exceed the Standards of Quality have been called "non-SOQ" operating costs.

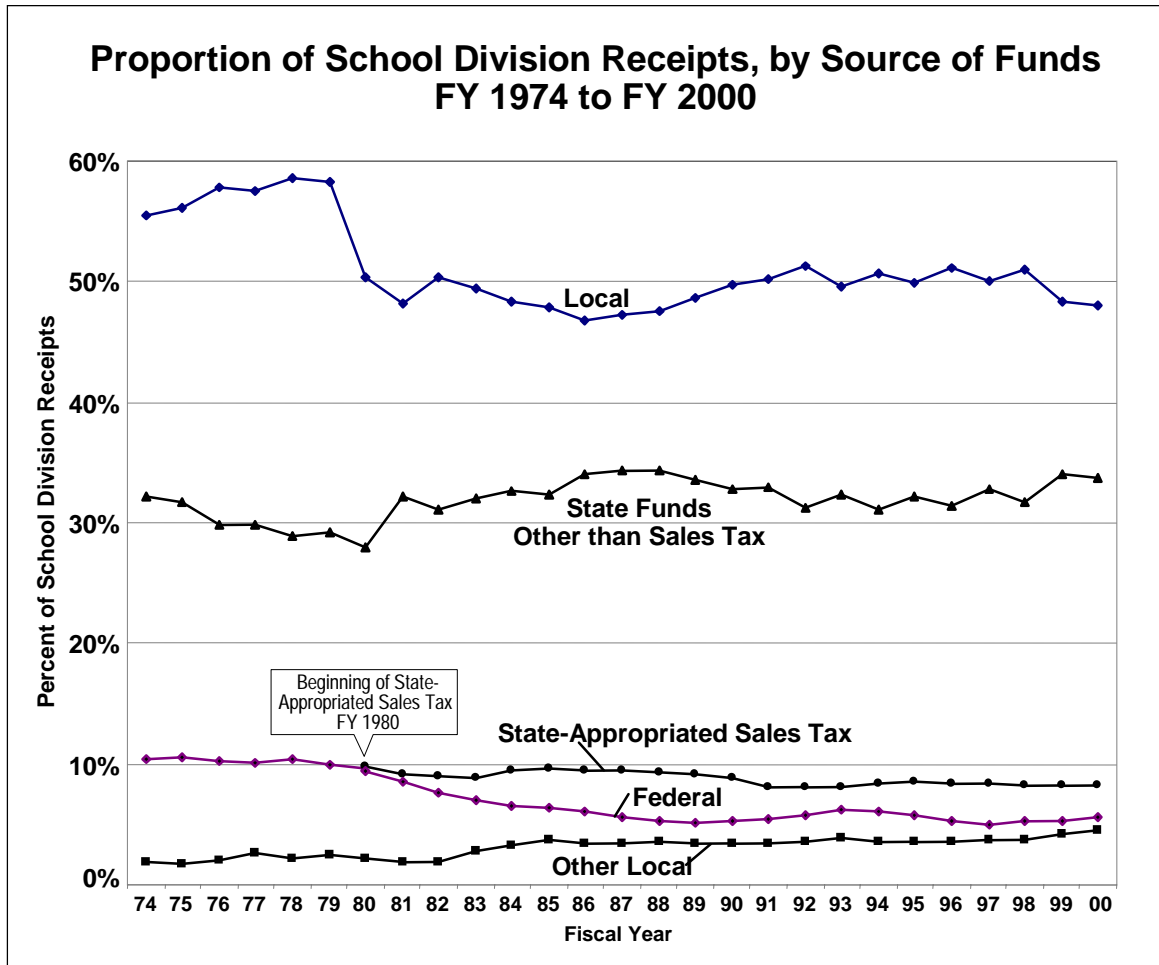
The table below shows operating expenditures by source of funds for FY 2000, the most recent year for which an analysis could be completed within the timeframe of this review. Almost two-thirds of SOQ costs (about 63 percent) were paid by the State-appropriated sales tax and by other State funds. However, about two-thirds of non-SOQ operating expenditures were paid by local funds. Federal funds pay for a relatively small portion of costs (six percent of operating costs).

For operating cost purposes, State appropriated sales tax funds plus other State funds were roughly equal to locality expenditures in FY 2000 (\$3.593 versus \$3.666

billion). However, local governments also pay the majority of capital costs. The State historically has not recognized capital costs as SOQ costs, but in recent years has provided some non-SOQ funding for these purposes.

The revenues received by school divisions reflect funding for operational and capital facility purposes. A review of the revenues received by school divisions shows that local governments typically pay about half of the total education costs (see figure on the next page). The State typically pays about 40 percent of education costs (State-appropriated sales tax plus other State funds). As a result, for many years, local

FY 2000 Operating Expenditures for SOQ and Non-SOQ Purposes, by Source of Funds					
		Percent of Expenditures Paid by Source ...			
Expenditure Category	Expenditure Amount (billions)	State- Appropriated Sales Tax	Other State Funds	Local Funds	Federal Funds
SOQ Costs					
SOQ-State Appropriated Sales Tax	\$ 0.736	100%	0%	0%	0%
Remaining SOQ costs (after deduction of sales tax)	\$ 4.208	0%	57% ( State's policy of 55 percent applies here )	43%	0%
TOTAL SOQ COSTS	\$ 4.944	15%	48%	37%	0%
Non-SOQ Costs					
TOTAL NON- SOQ COSTS, OPERATING	\$ 2.791	0%	16%	67%	17%
Total Operating Costs					
TOTAL, ALL OPERATING COSTS	\$ 7.735	10%	37%	47%	6%
Note: The State's policy of capping the composite index at 0.8000 leads to a larger State share of "remaining" SOQ costs than 55 percent.					
Source: JLARC staff analysis of expenditure and revenue data from the Department of Education.					



governments have voiced their concern that the State has not been an equal partner in funding public education.

Local government expressions of concern about the adequacy of State support for public education contributed to General Assembly interest in a JLARC review of the issues. During the 2000 General Assembly Session, several resolutions were introduced that requested that JLARC study the funding of the SOQ, and the ways in which local programs and services exceed the SOQ. In May 2000, the full Commission directed that a study of elementary and secondary education be conducted and reported in 2001. A topic selection subcommittee of JLARC also requested that the review consider teacher shortage funding

issues. In addition, certain issues pertaining to the State's at-risk pre-school program initiative were included in the review. Issues regarding this program, which is funded under the direct aid portion of the Department of Education's budget, were brought to the attention of the study at regional input sessions, and by letter requests from the Virginia Advisory Commission on Intergovernmental Relations (ACIR) and a member of the General Assembly.

The focus of this review is on State SOQ funding and local school division expenditures beyond the SOQ. The magnitude of locality expenditures beyond the SOQ is, of course, a function of both how SOQ costs are determined, and locality decisions about what additional resources

should and can be purchased with local funds. As part of a process for estimating State costs to fund the SOQ as well as the costs of funding options to go beyond the SOQ, JLARC staff examined issues regarding the way in which SOQ costs are estimated and funded, and the ways in which local governments choose to spend more than is required pursuant to the SOQ.

Seven primary findings resulted from this review.

- Localities which support educational programs going beyond the SOQ have some valid reasons to be concerned about the level of responsibility that they bear for education costs.
- As it has recently indicated it will do, the Board of Education needs to re-examine the SOQ, particularly for instructional staffing positions, to ensure that the standards are realistic in relation to the Commonwealth's current educational needs and practices.
- The General Assembly is empowered by the Constitution to establish SOQ costs. It has been generally presumed, however, in Attorney General's opinions and in other documents from early in the development of the SOQ, that the costs should not be estimated in an arbitrary manner, but should be realistic in relation to the current costs for education. Methodologies to achieve this objective were developed in the 1970s by a task force on financing the SOQ, and by JLARC staff in the mid-1980s. While the JLARC staff methodology was adopted by General Assembly budget actions during the 1980s, a number of changes were made in the calculations during the 1990s. Some

of these changes raise questions as to whether the State's foundation cost estimates have become less current and less realistic in relation to educational practice.

- Adjustments should be considered to make the State's foundation cost estimates for FY 2003 and FY 2004 more accurate and current for the years in which the funds are provided. Compared to the State's planned allocation levels in FY 2002, it is estimated that a 55 percent State share of foundation costs with the proposed adjustments made would add \$480 million to State SOQ costs in FY 2003. Also compared to FY 2002, the proposed adjustments to the estimate of the foundation costs would add an estimated \$580 million to State SOQ costs in FY 2004.
- The Virginia Department of Education (DOE) needs to ensure that all localities are providing sufficient local resources to meet SOQ requirements. Currently, DOE reviews the amounts budgeted by localities, but does not retrospectively examine whether sufficient local funds have been expended. The General Assembly may wish to more explicitly give DOE the authority to examine whether required local expenditure levels have been met and to take appropriate action.
- There are a wide variety of actions the State could pursue to enhance its support of elementary and secondary education beyond the full costs of the SOQ. Potential options in the report address areas such as instructional staffing levels, pre-school programs, teacher salaries, and debt service costs.



- The *Constitution of Virginia* provides the General Assembly with the responsibility for determining State and local shares for SOQ costs. The current framework which is utilized for making the determination of State and local share responsibilities for education appears to be compatible with constitutional provisions.

The primary issue with regard to State funding appears to continue to be the sufficiency of the State standards for education and the costs which the State will recognize and support. This issue can be addressed through various combinations of options to fund the State's standards, enhance the standards, and enhance the State's recognition of costs beyond current SOQ levels.

Localities will be impacted by State changes in its recognition of costs in varying ways, depending on the extent to which they make expenditures exceeding the SOQ. Localities which do not exceed, or only somewhat exceed, current State standards and SOQ required costs will likely benefit from the additional State funds in terms of their ability to pay improved teacher salaries and purchase more resources generally. However, they will also experience an increase in the level of local resources that they will be expected to provide for public education.

Localities operating well above the SOQ already, however, may have some local funds freed by the additional State funding. These localities might either use their freed-up funds to enhance their educational programs, or reduce their own burden for paying education costs. If localities offset the additional State funding with local funding reductions, then the pupils and staff that are part of the public education system will not receive a net benefit from the enhanced level of State support. Rather, in these localities, other local services may benefit, if

funding is shifted to local non-educational programs, or local taxpayers may benefit, if local tax rates are decreased.

### **Localities Have Some Valid Reasons for Concern About the Burden They Bear for Education Costs**

Six factors have converged to make the funding burden upon localities in recent years more severe than in the mid-1980s, the time of the last JLARC review of education funding. First, the number of pupils has been growing. From FY 1974 to FY 1985, the number of pupils statewide in public schools had declined, but from FY 1985 to the present, the number of pupils in statewide average daily membership grew every year, and about 140,000 pupils were added to Virginia public schools between FY 1985 and FY 2000.

Second, school facility costs have risen, even on a per-pupil and inflation-adjusted cost basis. School facility costs have largely been supported by local funds, although in recent years the State has provided an enhanced level of assistance. Still, there is reason to believe that costs in this area will continue to be high. While statewide growth in pupils is expected to slow over the next several years, some localities continue to grow at high rates. Further, approximately 18 percent of the school buildings in the State were built from 1950 to 1959, and another 26 percent were built between 1960 and 1969. These facts anticipate a need to replace or renovate a large number of buildings.

Third, average statewide growth in the local real property tax base, the largest single source of local revenues in most localities, has been slow (an average annual rate of increase in value per pupil of just 1.7 percent, between tax year 1989 and tax year 1998). As a consequence, in 1989 local governments on average needed to apply an effective tax rate of \$0.747 per \$100 of

estimated true value to pay for the local revenues that were expended for elementary and secondary education. By 1998, local governments on average needed to apply an effective tax rate of \$0.928 per \$100 of estimated true value to pay for their education expenditures.

Fourth, the State has taken actions that change the nature of locality reliance upon the personal property tax (also known as the “car tax”). Personal property has been, after real property, the largest source of tax revenues for local governments. The State has been working toward the goal of eliminating local taxpayer payments of this tax. As car tax relief for local taxpayers who own vehicles proceeds to 100 percent implementation, State revenues are used to reimburse the localities for their lost revenues. State reimbursements are based on the locality tax rates that were in place on August 1, 1997, so that no locality has an incentive to raise its personal property tax in order to obtain greater State payments. While local governments still technically have the authority to raise car tax rates and collect revenues above the tax policies they had in place in 1997, as a practical matter it appears that this will be a rare and unpopular course of action. Local governments are concerned, as indicated by the Report of the Commission on Virginia’s State and Local Tax Structure for the 21<sup>st</sup> Century, that “a majority of the citizenry has probably been conditioned to believe that their car tax has been permanently ended by the enactment of the 1998 legislation,” and that therefore “a political cap has been applied to this source.”

Fifth, the State is seeking, through a State curriculum and testing program known as the Standards of Learning (SOL), to challenge the State’s pupils and schools to improve student knowledge and performance. Local government and school division officials reported during regional input sessions for this study that additional resources are

warranted to help accomplish these expectations.

Lastly, after years of rapidly increasing State funds for education during the 1980s (even on a constant dollars per-pupil basis), State funding dropped from FY 1991 to FY 1992, and not until FY 1998 did State funding per-pupil in constant dollars again roughly equal FY 1990 levels. While the State provided increased funds in FY 1999 due to the application of Lottery Funds to education purposes and the start of a school construction grants program, localities are concerned that with increasing financial difficulties, the State may once again lose ground in funding, leaving local governments to bear the majority of the costs.

### **The Board of Education Needs to Keep the SOQ Current with Prevailing Practice**

Under the *Constitution of Virginia*, “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 drafters of the current *Virginia Constitution* indicated that the intent of the SOQ was for the State to seek a “progressively higher statewide standard, achievable under present conditions, but to be advanced as circumstances and resources permit.” An Attorney General’s opinion from 1973 stated:

Although what items shall comprise the Standards is a matter for the exercise of sound judgment by the Board of Education, subject only to revision by the General Assembly, the Standards cannot be prescribed in a vacuum but must be realistic in relation to the Commonwealth’s current educational needs and practices.

The primary area in which the Board of Education has set quantified standards that are part of the SOQ funding framework is in the area of instructor-to-pupil ratios and



maximum class sizes. Chapter II of this report indicates that these standards have changed little since the 1980s. Chapter III of this report documents that these standards are exceeded in most areas by current school division practices.

Recent amendments to the SOQ in the area of educational technology, approved during the 2000 Session, have asked the Board to become more active in setting SOQ guidelines. Among other things, the Board is required to promulgate regulations that set guidelines for staffing positions supporting educational technology. As of the fall of 2001, the Board had not yet drafted staffing standards for positions supporting educational technology.

The current Board of Education, during the fall of 2001, acknowledged that it has been relatively inactive with regard to re-examining the adequacy of SOQ resource requirements over the last decade or so. The Board is considering a proposed amendment to its bylaws that would require the Board to “conduct a review of the Standards of Quality from time to time, but no less than once every two years.” The Board needs to consider the adequacy of existing standards pertaining to resources as part of these reviews.

The *Constitution of Virginia* also requires that the Board make annual reports to the Governor and the General Assembly concerning the condition and needs of public education in the Commonwealth. However, these reports have changed in focus from indicating the present condition, needs, and areas of improvement for public education to documenting past and current Board actions, and have not been consistently provided. The reports should be produced each year, and the focus of the annual reports needs to be changed back to indicating present and imminent needs and areas of improvement.

**Recommendation.** *The Board of Education should review the adequacy of cur-*

*rent quantified standards pertaining to resource needs, and recommend advances in those standards to the General Assembly, as appropriate relative to current education conditions. In particular, the Board should examine: the need for minimum staffing requirements to address the provision of elementary resource teachers, the reasonableness and appropriateness of the current maximum class size standards and the maximum division-wide average pupil-teacher ratios for the elementary grades, and staffing standards for positions supporting educational technology. In addition, a funding standard to support the existing requirement for a planning period at the secondary school level appears to be needed.*

**Recommendation.** *The Board of Education should address the issue of resource needs for the public school system in its constitutionally and statutorily-required annual report on the conditions and needs of public education in Virginia. In order to meet the Board’s mandate, this annual report should focus on the needs and problems of public education that may require future action.*

### **Historical Presumption Has Been that SOQ Costs Should Be Realistic in Relation to Current, Prevailing Costs**

The *Constitution of Virginia* gives the General Assembly the responsibility to “determine the manner in which funds are to be provided for the cost of maintaining an educational program meeting the prescribed standards of quality.” Thus, the General Assembly is empowered to make the final decisions about SOQ costs. The adequacy of the cost set by the General Assembly to meet the SOQ has never been legally challenged. As indicated in the following, however, it has generally been presumed that the costs must not be arbitrary, and must be realistic in relation to current costs for education that are prevailing in the Commonwealth:

The legislative determination of cost may not be based upon arbitrary estimates with no reasonable relationship to the actual expense (*Virginia Attorney General's opinion, February 1983*).

[In] estimating the cost of implementing the Standards, the General Assembly must take into account the actual cost of education rather than developing cost estimates based on arbitrary figures bearing no relationship to the actual expense of education prevailing in the Commonwealth. (*Virginia Attorney General's opinion, February 1973*).

...the following guidelines are implicit in the Constitution: (1) the Standards of Quality must be realistic in relation to current education practice. (2) The estimate of the cost of the Standards of Quality must be realistic in relation to current costs for education. (*From the first and second reports of the Task Force on Financing the Standards of Quality for Virginia Public Schools, December 1972 and July 1973*).

One of the ways to promote these objectives in the determination of costs is to estimate SOQ costs using a methodology with cost estimation principles that are known, reliable, and independent of factors that are unrelated to the actual expense of education, such as the short-term availability of State funds. Methodologies for estimating SOQ costs were developed by a task force on financing the SOQ in the early 1970s, and by JLARC staff in the 1980s. The State's current approach uses the basic approach of the JLARC staff methodology, but there are some deviations which reduce the size of the cost estimates. The table on the next page highlights some of the differences

between the task force, the 1980s JLARC staff methodology, and the current approaches to estimating SOQ costs.

**Task Force / DOE Methodology for Estimating SOQ Costs.** In 1972 and 1973, a task force for financing the Standards of Quality developed a methodology for State use. The task force was created by the Governor and consisted of key members of the General Assembly, staff of the Attorney General's office, DOE officials, and others. To estimate SOQ costs in areas not addressed by quantified standards, such as base instructional salary levels and support costs, staff to the task force proposed the use of a statewide average cost, and a statewide average approach was included in reports of the task force in December 1972 and July 1973.

DOE used the task force methodology, including the use of the statewide average, in estimating SOQ costs during the 1970s and first half of the 1980s. However, the General Assembly did not fully fund this estimated cost, but established lesser amounts in the Appropriation Act. The difference between the Department's estimated SOQ cost and the legislatively-established SOQ cost was known as the SOQ "funding gap."

In August 1985, the Board of Education recommended to the Governor an increase of \$518 million dollars to fully fund the State share of the SOQ cost in the 1986-88 biennium. Based on the most current data available later that year, DOE in December 1985 estimated that \$395.9 million in additional funds would be required in the coming biennium.

**JLARC Staff Methodology from the 1980s.** Also during 1985, JLARC staff were examining SOQ cost issues for the General Assembly. JLARC staff developed a new methodology for estimating SOQ costs. Based on the new methodology, JLARC staff's estimated SOQ costs required an addition of \$161.4 million in State funds for

<b>Comparison of Approaches to Estimate SOQ Costs</b> (changes in the 1990s highlighted in bold)			
<b>Key Areas of Cost Estimation Differences</b>	<b>Task Force / DOE Approach (Prior to 1986 Session)</b>	<b>JLARC Staff Methodology (1986 and 1988 Sessions)</b>	<b>State's More Recent Approach</b>
<b><i>Key Changes from the Task Force / DOE Approach to the JLARC Staff Methodology and the Current Approach</i></b>			
Instructional Positions	Focused on 57 FTEs per 1,000 positions.	Uses class, school, and division-wide standards to determine where FTEs above 57 per 1,000 are required.	Based on JLARC staff methodology.
Teacher Salary Base	Statewide average of teacher salaries (total salary compensation statewide divided by number of teachers).	Linear weighted average, using actual average division salaries to determine prevailing cost. Cost of competing adjustment for Northern Virginia.	Linear weighted average salary <b>with LEA as unit of analysis. * Cost of competing adjustment fully funded for teachers, mostly funded for support personnel.</b>
Determination of Support Costs	Statewide Average Per-Pupil Cost	Linear Weighted Average Per-Pupil Costs	Linear Weighted Average Per-Pupil Costs.
<b><i>Key Changes During the 1990s from the Assumptions of Prior Approaches</i></b>			
Inclusion of Support Personnel in Cost Calculations	Comprehensive.	Comprehensive.	<b>Professional administrative and clerical staff dropped due to DOE mistake. Change made permanent.</b>
Teacher Salary Increases	DOE projected salary costs forward based on percentages needed to achieve or maintain teacher salary goals. Costs for a full fiscal year.	Salary costs projected forward based on percentages needed to achieve or maintain teacher salary goals. Costs for a full fiscal year.	<b>No teacher salary goal. Year-to-year decisions, usually based on State employee raises. Increase is for half of a year.</b>
Inflation for Support Costs, Health Insurance Costs	DOE used inflation factors prospectively to estimate support costs.	Also used inflation factors prospectively to estimate support costs.	<b>Prospective inflation factors no longer used.</b> Rationale is the lack of use in other State programs.
<p>* For several biennia, DOE has been calculating prevailing costs using Local Education Agencies (LEAs) as the unit of analysis, rather than school divisions. This would give regional centers equal weight with school divisions. Following JLARC staff identification of this discrepancy with the original calculation, DOE staff report using the school division again as the unit of analysis in its 2002-2004 cost estimates. Returning to the school division as the unit of analysis increases estimated SOQ costs by about \$9 million in each year of the upcoming biennium.</p> <p>Source: JLARC staff summary of differences between historical approaches to estimating SOQ costs.</p>			

the 1986-88 biennium, compared to DOE's estimate of \$395.9 million.

The JLARC staff cost approach was adopted by actions of the 1986 and 1988 General Assembly. The JLARC staff approach entailed a more detailed estimate of the net impact of quantified State standards for instructional personnel. The quantified standards of the Board of Education were taken as a given in this analysis. The JLARC staff methodology also used actual school division unit costs, so that the costs calculated in areas not addressed by quantified standards would have a reasonable relationship to the actual expense of education prevailing in the Commonwealth. A measure of central tendency, the linear weighted average, was applied to actual school division unit costs (salary levels, per-pupil costs) and used to estimate the typical expense incurred by school divisions in meeting the SOQ in the base year. The resulting typical unit cost is less than the unit cost produced by the statewide average.

All types of support component positions were included in the estimates of prevailing SOQ costs. As was done by DOE, JLARC staff used Chase Econometric inflation factors to estimate future changes in support staff compensation levels and in non-personnel costs, and also used State salary goals to project future teacher salary increases needed to meet or maintain the goals. In this way, the base year costs were updated to produce costs which were current for the year to be funded.

***The Current Approach to Estimating SOQ Costs.*** Since the 1980s, the State has continued to use the linear weighted average as the measure to estimate base year prevailing salary and support costs. However, a number of changes were made during the 1990s in the State's approach to estimating SOQ costs. Some of these changes stem from the time of a State fiscal crisis in the early 1990s. However, the changes raise some potential questions as

to whether the State's foundation cost estimates have become less current and less realistic in relation to educational practice than they were prior to these changes. Some prevailing support costs (professional and clerical staff) were dropped from the cost estimating process. Support costs are inflated from a base year up to the year before the new biennium begins, but no method is used to inflate the costs forward for the years of the new biennium. From the start of the SOQ in FY 1974 to FY 2000, average teacher salaries in the Commonwealth have shown an increase over the prior year in 26 of 27 years. However, the State's approach to estimating SOQ teacher salary costs for each new biennium begins with the assumption of no increase in salaries. This assumption may be adjusted, depending on the outcome of year-to-year State budget decisions about salary increases. Increases have been unpredictable, and have generally been associated with budget decisions regarding pay increases for State employees, and not prevailing local practices for increasing school division salaries or a teacher salary goal.

### **Routine Re-basing of the SOQ Cost Model Plus Proposed Costing Adjustments in this Report Indicate Need for One Billion in New State SOQ Funds Over the Next Two Fiscal Years**

Chapter II of this report provides recommendations for adjusting the State's current approach to estimating SOQ costs. The purpose of the adjustments is to provide a SOQ cost estimate that is as accurate and current as possible, within the constraints of the data available as of the fall of 2001.

The State cost for the resulting foundation program, at the current State share of 55 percent, represents an increase of about \$1.060 billion in the upcoming biennium. (This cost includes the approximately \$364 million that is needed to fully fund the SOQ based on the State's current cost ap-



proach). Compared to FY 2002 planned allocations, it is estimated that the foundation program will entail an additional \$480 million more in FY 2003 and \$580 million more in FY 2004. These figures are based on an assumption that the State will continue to provide non-SOQ payments at FY 2002 levels. The FY 2003 figure represents about a 12.0 percent increase over the prior year, while the FY 2004 amount represents about a 2.2 percent increase over FY 2003.

The table on the next page summarizes the proposed JLARC staff adjustments to the current approach for estimating the costs of the SOQ. A detailed explanation of these cost additions is provided in Chapter II of the report. The estimates are based on data that were available to JLARC staff as of the fall of 2001. Therefore, the estimates may change as new enrollment projections, sales tax revenues, composite index values, and other new data are available. In addition, during this review, JLARC staff identified an apparent problem in the federal child count data that DOE uses in calculating special education FTEs and costs. It appears that the distinctions in the data between self-contained pupils (most of the pupil's time is spent in special education classes) versus resource pupils (most of the pupil's time is spent in the regular classroom) may not be fully reliable. These data are developed by DOE's special education division, based on voluminous information submitted by the school divisions. Revisions to these data could have an impact on the calculated special education costs for a number of school divisions and upon the total SOQ cost. Key recommendations from the chapter are the following.

**Recommendation.** *The General Assembly may wish to provide sufficient funding in FY 2003 and FY 2004 to provide a State share of 55 percent of foundation costs, based on the SOQ cost calculation adjustments described in the JLARC staff report.*

**Recommendation.** *The Department of Education needs to review and make corrections as appropriate to the special education child count data that is currently being used in the SOQ funding model. In the future, DOE staff need to develop procedures to better ensure the reliability of these data.*

### **The State Needs to Ensure That All Localities Are Consistently Providing Sufficient Funds to Meet SOQ Requirements**

Regarding SOQ costs, the *Constitution of Virginia* requires that:

Each unit of local government shall provide its portion of such cost by local taxes or from other available funds.

The *Code of Virginia* also provides, in §22.1-95, that all localities are required to raise sufficient funds to provide the local portion of the cost necessary to meet the SOQ.

To help effectuate these provisions, State Appropriation Acts since 1974 have required that calculations be performed "in order to determine if a division has met its required local expenditure." To ascertain whether the necessary expenditures have been made, the use of actual expenditures and revenue data need to be employed in the calculation.

DOE staff request that divisions submit information on locally-funded budgets to meet SOQ costs toward the beginning of the school year, but do not check after-the-fact to see if adequate local funds have been expended. Using FY 2000 data, however, JLARC staff identified three school divisions which may not have provided sufficient local funding in that year to meet their required local expenditure, although the data currently are not complete enough to determine this with certainty.

DOE staff point out that the Appropriation Act language is ambiguous because it does not specify who is to do this calculation. It could be DOE, or it could be the divi-

<b>Estimated Increases in State SOQ Costs in FY 2003 and FY 2004</b> (Numbers in parentheses show accumulated increases)		
Step	<b>Estimated FY 2003 State Cost Above FY 2002, in millions</b> (above DOE FY 2002 planned allocation level of \$4.015 billion)	<b>Estimated FY 2004 State Cost Above FY 2002, in millions</b> (above DOE planned FY 2002 allocation level of \$4.015 billion)
Routine updates to SOQ cost model *	<b>+ \$ 174</b> ( + \$ 174 )	<b>+ \$ 190</b> ( + \$ 190 )
<b>Increased State Costs to Fund a More Accurate Estimate of SOQ Costs</b>		
No deduction of locally-generated revenues before calculating State and local shares	<b>+ \$ 48</b> ( + \$ 222 )	<b>+ \$ 49</b> ( + \$ 239 )
Dropped administrative personnel costs restored	<b>+ \$ 74</b> ( + \$ 296 )	<b>+ \$ 74</b> ( + \$ 313 )
Full cost of competing adjustment for support	<b>+ \$ 3</b> ( + \$ 299 )	<b>+ \$ 3</b> ( + \$ 316 )
<b>Increased State Costs to Keep Funding Current With Expected SOQ Costs</b>		
Health insurance premium increases for the new biennium	<b>+ \$ 8</b> ( + \$ 307 )	<b>+ \$ 15</b> ( + \$ 331 )
Non-personnel support inflation recognized	<b>+ \$ 15</b> ( + \$ 322 )	<b>+ \$ 21</b> ( + \$ 352 )
Prevailing support salaries kept current	<b>+ \$ 32</b> ( + \$ 354 )	<b>+ \$ 47</b> ( + \$ 399 )
Instructional personnel salaries kept current	<b>+ \$ 126</b> ( + \$ 480 )	<b>+ \$ 181</b> ( + \$ 580 )
<b>Total Increase Needed, Routine Updates PLUS Adjustments</b>	<b>\$ 480</b>	<b>\$ 580</b>
<b>Percent Increase Over Prior Year in State Aid (Sales tax plus State SOQ plus State non-SOQ)</b>	<b>12.0 %</b>	<b>2.2 %**</b>
* Amount includes corrections brought to DOE's attention by JLARC staff (the inclusion of salary supplements, prorating regional center teacher salaries to the participating divisions, and revising Virginia Beach's special education data). In FY 2003, for example, estimated State SOQ costs are about \$30 million higher due to the supplements, about \$9 million higher due to proration, and about \$7 million higher due to the use of more accurate data for Virginia Beach).  ** Percent cost increases of 3.72 for instructional personnel, 2.25 for support personnel, and zero for the non-SOQ.		
<b>TOTAL NEW (OR SHIFTED NON-SOQ) STATE FUNDS NEEDED FOR THE BIENNIUM TO FUND THE ESTIMATED COSTS OF THE SOQ:</b> <b>\$ 1.060 billion</b>		



sions or the localities themselves, or it could be another party. DOE staff indicate that they would need an explicit charge that they are to conduct this assessment, if the General Assembly wishes for this compliance check to be completed by DOE.

Another potential issue regarding compliance with SOQ resource requirements is special education staffing. As previously noted, special education data problems were identified because SOQ funding model calculations for special education teachers were observed by JLARC staff to exceed the number of positions which school divisions actually have. This result appears to largely stem from child count data problems. However, once the data are corrected, DOE should provide the results from the funding model to DOE Office of Accountability staff. This may assist the office in assessing whether there are any school divisions who may not be providing sufficient special education teachers and aides to meet the standards.

**Recommendation.** *The General Assembly may wish to expand upon Appropriation Act language to explicitly provide that the Department of Education is to perform calculations to determine if required local expenditures for the SOQ have been met.*

### **Various Options Are Available If the State Wishes to Further Enhance Its Support of Elementary and Secondary Education Beyond SOQ Levels**

There are a wide variety of actions the State could pursue to enhance its support of elementary and secondary education. This report identifies some of those actions, classifying those actions into three tiers. The table on the next page summarizes the cost implications of these tiers.

The first tier is to meet the estimated costs of the SOQ, based on current standards and prevailing cost estimates that are kept current for the years to be funded. As

previously mentioned, the SOQ are the State's first and foremost education funding obligation. The second tier includes options for funding operating costs where the majority of school divisions already engage in the practice that is to be funded, but the State does not generally fund the practice, or does not fund it in all school divisions.

A third and final tier addresses capital cost funding (debt service) and teacher salaries. The issues in this tier present some unique concerns. The State historically has had a limited role in funding locally-built facilities, but in recent years substantially increased its funding for this purpose. The extent of the State's participation in this area is a policy choice. With regard to teacher salaries, the State currently lacks a clear policy or salary goal. The teacher salary assumptions in Tier One for this report go beyond the State's current approach, and may already present a funding challenge for the State and some localities. However, the status of this issue in Virginia may be in flux, because some State policy-makers have indicated their commitment to the more expensive goal of funding the national average teacher salary.

**Tiers One and Two.** Compared to FY 2002 planned State allocations, in FY 2003, the State cost of addressing the Tier One plus Tier Two funding items represents an estimated \$810 to \$894 million increase. Also compared to FY 2002, by FY 2004, the amount of the increase to fund these two tiers is an estimated \$923 million to \$1.008 billion.

Of the Tier Two components, perhaps the most compelling case for State action can be made with regard to funding elementary resource teachers and funding the cost implications of a planning period at the secondary school level. These costs have not been recognized by the State based on assumptions that may no longer be appropriate. For example, State accreditation standards require that school divisions provide

<b>SOQ Costs Plus Estimated Increases in State Costs for Some Options to Go Beyond the SOQ</b>		
<b>Funding Items</b>	<b>Estimated FY 2003 State Cost Above FY 2002, in millions</b> (above DOE FY 2002 planned allocation levels)	<b>Estimated FY 2004 State Cost Above FY 2002, in millions</b> (above DOE planned FY 2002 allocation levels)
<b>Tier One – Meeting SOQ Costs</b>		
Routine Updates	\$ 174	\$ 190
Proposed Adjustments for Estimating SOQ Costs	\$ 306	\$ 390
<b>Sub-total, Estimated SOQ Costs</b>	<b>\$ 480</b>	<b>\$ 580</b>
<b>Tier Two – Enhancing the Recognition of Instructional Personnel and At-Risk Pre-School Funding</b>		
Prevailing Elementary Resource Teachers	\$ 110	\$ 114
Secondary Class Size of 25:1 with Planning Period	\$ 80	\$ 83
Prevailing Instructional Staffing Practices	\$136 to \$183	\$ 141 to \$189
Added Costs for Expanded State Payments for Pre- School Programs	\$4 to \$41	\$5 to \$42
<b>Sub-total, Tier Two Cost</b>	<b>+ \$ 330 to \$ 414</b>	<b>+ \$ 343 to \$ 428</b>
<b>Tier Three – Debt Service Cost Funds to Supplement Current State Funds for Capital Purposes, and Teacher Salary Costs to Go Beyond Tier One</b>		
Up to 50 Percent State Share of Prevailing Debt Service Costs	\$ 0 to \$ 142	\$ 0 to \$ 149
Range in Added Costs For Teacher Salaries to Go Beyond Tier One *	\$ 84 to \$ 180	+ \$ 87 to \$ 212
<b>Sub-total, Tier Three Cost</b>	<b>\$ 84 to \$322</b>	<b>\$ 87 to \$ 361</b>
<b>Total Estimated Increased Cost, All Three Tiers</b>	<b>\$894 to \$1,216</b>	<b>\$ 1,010 to \$1,369</b>
* Tier One already entails \$126 million and \$181 million in added State funds in FY 2003 and FY 2004 for instructional salaries above the level used in FY 2002 State allocations. Therefore, the cost ranges shown in this row are additional funds beyond Tier One to achieve teacher salary options. The maximum cost shown represents the estimated funds that would be needed, beyond the Tier One increase, to move the State toward the national average salary by FY 2006.		

elementary resource programs such as art, music, and physical education. The State has assumed in its SOQ position calculations that these programs can be provided by the regular classroom teachers. The prevailing school division practice, however, includes the provision of resource teachers with expertise in these areas.

Other Tier Two options include: (1) reducing maximum class size standards to the maximum class sizes that are actually provided in 75 percent of the school divisions, (2) using lower division-wide pupil-to-teacher ratios for elementary grade regular classroom instruction, and (3) expanding State payments for pre-school programs for at-risk four year-olds. Research studies have shown that pre-school programs for at-risk four year olds may be one of the better investments that can be made in funding education.

The costs which are calculated for Tier Two assume that State non-SOQ funding will not be reduced, and that only a few of the State's non-SOQ funds will be applied to meet the costs of the options. It is assumed that the State will at least continue to fund the pre-school program initiative at current levels, so that the added costs which are shown are to increase the size of the State's non-SOQ payment in this area.

Some of the other State non-SOQ funds (such as the primary class size reduction funds and the additional teacher programs) could potentially be applied to help support these costs as a policy choice, but the original purposes of these programs are not clearly aligned with the intent of the Tier Two options. Therefore, the estimate of increased State costs for Tier Two options in this report do not include the use of other existing State non-SOQ funds.

**Recommendation.** *The General Assembly may wish to consider funding a State share of the cost of the prevailing levels of elementary resource teachers in the school divisions, and/or a 21 to one pupil-teacher*

*ratio at the secondary school level (to fund an average class size of 25 to one, with a teacher planning period).*

**Recommendation.** *The General Assembly may wish to consider the options contained in this report for expanding funding support for the State's at-risk pre-school initiative.*

**Tier Three.** Option Tier Three includes an option for the State to provide funding support for capital purposes equal to up to 50 percent of prevailing per-pupil debt service costs, based on the linear weighted average costs. The State currently provides support for capital purposes (through half of Lottery Funds and the school construction grant program) at a level that is about 25 percent of the prevailing per-pupil cost. The cost estimates for Tier Three assume that these existing State programs will be funded at least at current levels.

In the report, however, most of the options identified as Tier Three options relate to instructional staffing salaries. This does not reflect a judgement that salary levels are not important. Included in the previously-discussed Tier One SOQ costs, for example, were the cost increases needed for the State at a minimum to keep the prevailing salary that it uses in SOQ cost calculations current with the year to be funded, and to provide full-year salary increases, consistent with prevailing school division practice. Also, it is recognized that school divisions appear to be facing problems in attracting and retaining high quality teachers, with some divisions facing greater problems than others.

However, a difficulty with advancing the State's floor for salaries is that the State funds the school divisions, and a majority of the school divisions will likely pay an average salary in FY 2003 and FY 2004 that is less than the State will assume in its cost calculations (if it keeps its prevailing cost current). With more than half of the school divisions paying less than the prevailing salary used by the State, the argument for a

State SOQ floor or minimum that goes from the prevailing salary to a statewide average salary that is not paid in 110 school divisions of the State (84 percent) seems problematic. Pursuit of State funding for a national average salary goal may also be difficult without a major State effort to reach this goal, as (1) the State and most school divisions currently provide funding support for average salaries that are less than the statewide average, (2) the State does not recognize all of the teachers for which localities pay salaries in its funding support, and (3) only eight school divisions in the State (six of them in Northern Virginia) paid an average salary in FY 2000 that was above the national average.

Still, the report includes the estimated costs of several salary options in a discussion of Tier Three options. The report also recommends that the State consider forming a task force, with executive and legislative branch representation, and the inclusion of other interested parties, to consider what the State's goal should be with regard to teacher salaries.

**Recommendation.** *The Governor and the General Assembly may wish to create a Task Force to examine the issue of an appropriate teacher salary goal for the Commonwealth of Virginia, to assist in determining whether and how much of a salary increase should be provided in the future, beyond those sufficient to fund anticipated prevailing school division salaries.*

### **Current Framework for Determining State and Local Responsibilities for Paying for Education Costs Is Generally Appropriate**

The current framework for determining State and local responsibilities for education is compatible with constitutional provisions and is generally appropriate. The composite index, which is used to measure ability to pay, could be updated, and adjustments could be made to take into account

certain factors that may be beyond local control and which impact ability to pay, such as population density. However, most State funding (76 percent in FY 2001) is distributed using the ability to pay measure, thereby providing relatively more funding per pupil to school divisions with fewer available locality resources (see the table on the next page). This approach should be continued. The great majority of funding that is not equalized, or distributed based on ability to pay, is from the State sales tax, which is distributed back to localities based on school age population.

Certain frequent criticisms regarding the State's percentage participation in funding education have been based on information that is not factual. For example, the State has frequently been criticized for not providing an allegedly promised share of 55 percent of the actual costs of education. In fact, the State has not made this commitment.

The 55 percent figure is the State's current policy regarding the State's share of the remaining costs of the SOQ after the portion covered by the State-appropriated sales tax is subtracted. Also, that percentage is amenable to change. Under the *Constitution of Virginia*, the General Assembly has the authority to determine the State and local shares for SOQ costs, and has the authority to increase or decrease the State's percentage.

In addition, there is no single "actual cost" of education in Virginia. Rather, there are as many cost levels in Virginia as there are school divisions. The State funds localities using a funding formula approach, rather than the reimbursement of each division's actual costs which may reflect varying degrees of ability to pay, willingness to pay, efficiency levels, and aspiration. The approach does take into account the actual cost experience of school divisions collectively, and calculates a prevailing cost level based on those actual costs. While this report indi-

## Comparison of Composite Index and Per-Pupil Funding Amounts, FY 2000

Per Pupil Amounts						
Locality	Composite Index	Local	State	Federal	State Sales & Use Tax**	Total
<b>Five Lowest Composite Index Localities</b>						
Lee County	.1861	\$601	\$4,543	\$1,172	\$675	\$6,991
Scott County	.2178	\$1,061	\$3,952	\$577	\$704	\$6,294
Wise County	.2245	\$1,550	\$3,796	\$602	\$638	\$6,585
Portsmouth City	.2309	\$1,048	\$4,133	\$706	\$661	\$6,548
Petersburg City	.2319	\$776	\$3,960	\$842	\$587	\$6,164
<b>Five Highest Composite Index Localities*</b>						
Bath County	.8000	\$7,122	\$1,345	\$457	\$572	\$9,507
Surry County	.8000	\$7,648	\$1,384	\$508	\$618	\$10,158
Falls Church City	.8000	\$8,798	\$1,137	\$179	\$596	\$10,710
Arlington County	.8000	\$9,385	\$1,182	\$453	\$677	\$11,697
Fairfax City	.8000	\$7,335	\$1,011	\$4	\$684	\$9,034

\*Seven localities had composite indices of .8000. The five above were selected based on having the highest revenue capacity per capita of the seven localities.

\*\* The State sales and use tax is distributed based on school-age population, not the composite index.

cates that there is room for the State to enhance its participation in education funding, the State's primary obligation is to ensure that the foundation SOQ costs are provided.

**Recommendation.** *The General Assembly may wish to ensure that the great majority of State funding for education continues to be distributed using a local ability-to-pay measure to determine State and local shares of public education funding.*

**Recommendation.** *The General Assembly may wish to consider adjusting the current composite index to: (1) provide for*

*a population density adjustment, (2) update the relative weights that are given to the real property, sales tax, and other revenue components, and (3) use a composite index that takes median adjusted gross income into account for localities with skewed income distributions. In addition, if the State continues to pay the local personal property tax, the General Assembly may wish to consider in the future how the composite index could be improved to better address this aspect of local ability to pay.*



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## Table of Contents

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	<u>Page</u>
<b>I. INTRODUCTION .....</b>	<b>1</b>
Background on the Standards of Quality .....	2
Several Trends During the 1990s Increased the Pressure Placed Upon Local Governments in Funding Education Costs.....	4
Trends in Funding for Education in Virginia .....	10
Virginia Resources and Student Performance Compared to Other States or National Averages .....	13
Prior JLARC Review of Education Funding in Mid-1980s Focused on SOQ Costs and Funding .....	15
Current JLARC Review .....	17
Report Organization.....	22
<b>II. SOQ REQUIREMENTS AND THE FUNDING OF SOQ COSTS.....</b>	<b>25</b>
The Role of the Board of Education and SOQ Requirements in Education Funding .....	27
The State's Estimation of SOQ Costs .....	34
The Administration and Oversight of SOQ Funding .....	51
<b>III. SCHOOL DIVISION OPERATING PRACTICES AND EXPENDITURES BEYOND SOQ REQUIREMENTS AND COSTS.....</b>	<b>65</b>
State and Local Funding of School Divisions for Non-SOQ Purposes .....	66
Factors Associated with Differences in the Size of Total Operating Costs Per Pupil (Regardless of Source) .....	70
Differences in the Size of School Division Operating Expenditures Per-Pupil from Local Non-SOQ Funds .....	76
Instructional Staffing Levels .....	77
Teacher Salary Levels .....	87
Conclusion .....	93
<b>IV. OPTIONS FOR THE STATE'S RECOGNITION OF EDUCATION COSTS .....</b>	<b>95</b>
Tier Two Funding Options: Enhancing the Recognition of Instructional Personnel and At-Risk Pre-School Funding .....	96
Tier Three Funding Options: Debt Service and Teacher Salary Costs Beyond Tiers One and Two .....	106
<b>V. STATE AND LOCAL COST RESPONSIBILITY OPTIONS .....</b>	<b>123</b>
The Proportion of Costs to Be Paid, in Aggregate, by the State Versus the Localities .....	124
Measuring Local Ability to Pay for Education.....	125
The Frequency of Use of the Local Ability to Pay Measure .....	143
<b>VI ILLUSTRATIVE FUNDING OPTIONS.....</b>	<b>147</b>
Overview of Options.....	147
<b>APPENDIXES .....</b>	<b>151</b>



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## I. Introduction

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In May 2000, the Joint Legislative Audit and Review Commission (JLARC) directed staff to commence a review of funding for elementary and secondary education in Virginia's public schools. Under the *Constitution of Virginia*, the General Assembly has responsibility for providing a system of free public elementary and secondary schools. The *Constitution* requires that the General Assembly seek to ensure that an educational program of high quality is established and maintained. The *Constitution* also requires that the General Assembly determine the manner in which funds are to be provided to meet State Standards of Quality (SOQ), including apportioning the costs between the State and local governments. The General Assembly, therefore, has a clear reason for continual concern as to the adequacy and appropriateness of public elementary and secondary education funding.

Many local governments have long argued that the State has not been a full partner in funding elementary and secondary education. They point to numerous differences between the expenditures that are made for education, and the cost of the SOQ that the State recognizes and participates in funding. The State's perspective generally has been that its primary obligation is to fund the State-required SOQ, not to help defray the cost of all local expenditure decisions, some of which could potentially be inefficient or reflect local aspiration.

The decade of the 1990s, however, was one that saw growth in the student population of the State, substantial local expenditures for capital needs (a type of public school expense that the State has traditionally not shared in funding except through low-interest loans), and relative stagnancy in the single major tax source for local governments, real property. In constant dollars per pupil, the dollar value of the real property tax in tax year 1998 was less than it was in FY 1989. These factors do appear to have placed a strain on the capacity of some local governments to meet rising education costs. Further, State funding for education throughout most of the 1990s was less in constant dollars per pupil than it had been at the start of the decade. Partly in response to local government concerns, in FY 1999 the State began to provide State lottery proceeds to localities to support education, and began a school construction grants program. These efforts enhanced the availability of State funding to localities.

While expressing appreciation for the additional support, locality concerns about their own fiscal situations and the adequacy of State support persisted. In response to locality concerns, members of the 2000 General Assembly expressed interest in a JLARC review of SOQ costs, school division practices and expenditures which exceed SOQ costs, and other public education funding issues. This study resulted.

## BACKGROUND ON THE STANDARDS OF QUALITY

Virginia's Standards of Quality provide an important foundation for the State's role in funding elementary and secondary education. The SOQ are minimum requirements for school divisions in Virginia to provide a program of high quality for public elementary and secondary education. Under the State *Constitution*, the State Board of Education (BOE) prescribes these standards, subject to revision by the General Assembly.

The SOQ as adopted appear in the *Code of Virginia* in Title 22.1, Chapter 13.2. The SOQ chapter spans from §22.1-253.13:1 through §22.1-253.13:7, and §22.1-253.13:8 addresses the responsibility of local school boards to provide the minimum programs and services required and the authority of the State Board of Education to seek school division compliance with the SOQ.

The current SOQ cover seven major areas. These areas are summarized in Exhibit 1. A complete listing of all actual requirements which must be implemented in order to fully comply with the SOQ needs to take into account: the *Code of Virginia*, the Bylaws and Regulations of the Board of Education, the Standards for Accrediting Schools adopted by the Board of Education, and the Appropriation Act.

The present SOQ provide a statutory basis for both the Standards of Learning (SOL) and the Standards of Accreditation (SOA). Standard 1 of the SOQ states that:

The Board of Education shall establish educational objectives to Implement the development of the skills that are necessary for success in school and for preparation for life in the years beyond. The current educational objectives [are] known as the Standards of Learning (*Code of Virginia*, Title 22.1-253.13:1).

Standard 3 of the SOQ states that the "Board of Education shall promulgate regulations establishing standards for accreditation..."

The SOQ include various quantified and non-quantified standards. Quantified standards include instructional staff-to-pupil ratios at the classroom, school, and division level for basic education programs. In many other areas, however, such as support services, the standards are generally qualitative in nature.

The General Assembly has responsibility for determining how the SOQ are to be funded. While the State provides some funding to localities for elementary and secondary education that is not pursuant to the SOQ, the bulk of State funding is provided for SOQ purposes – that is, to help localities meet the costs of the standards.

In aggregate, in recent years, the State has provided for 55 percent of SOQ costs that are not paid with sales tax revenue. The exact percentage of SOQ costs which the State pays varies from locality to locality based on a measure of abil-

**Exhibit 1****Summary of the Current Standards of Quality**

**1. Basic skills, selected programs, and instructional personnel.** The Board of Education shall establish educational objectives for the development of skills necessary for success in school and the years beyond (currently expressed in the Standards of Learning, or SOLs). Local school boards should offer programs for special education; career and vocational education; gifted, handicapped, and at risk students; and adult education. Local school boards must employ the minimum number of instructional personnel for each 1,000 students, as set forth in the appropriation act, and the minimum number of instructional personnel on a division-wide basis as required by this statutory section.

**2. Support services.** The Department of Education and local school boards shall provide support services necessary for the operation and maintenance of public schools.

**3. Accreditation, other standards and evaluation.** The Board of Education must promulgate regulations establishing standards of accreditation for local school divisions which include student outcome measures related to the Standards of Learning. This section also contains specific minimum staffing requirements for certain positions, such as principals, assistant principals, librarians, guidance counselors, and clerical personnel. Local school boards must require the administration of tests to assess the educational progress of students.

**4. Literacy Passports, diplomas and certificates.** This standard addresses requirements for the completion of high school programs. (As of July 1, 2003, references to the Literacy Passport will be dropped from this standard).

**5. Training and professional development.** The Board of Education and local school boards must provide professional development programs for instructors and administrative staff.

**6. Planning and public involvement.** The Board of Education and local school boards must adopt biennially six-year improvement plans, which are developed with community involvement and available to the public.

**7. Policy manual.** Local school boards must maintain up-to-date policy manuals which include guidelines for communication, policies on the selection of instructional materials, standards for student conduct, and guidelines to parents.

Source: JLARC staff summary of Chapter 13.2 (Standards of Quality) of the *Code of Virginia* (§22.1-253.13:1 to §22.1-253.13:8).

ity to pay – the composite index – but has generally ranged from 20 percent (the minimum percent State contribution for SOQ costs using the index) to a high of over 80 percent. The percentage contribution by the State to total public school costs is less than 55 percent, however, as many operating expenditures made by the locali-

ties have not been considered SOQ costs, and SOQ costs also have not traditionally included facility or debt service costs.

### **SEVERAL TRENDS DURING THE 1990s INCREASED THE PRESSURE PLACED UPON LOCAL GOVERNMENTS IN FUNDING EDUCATION COSTS**

Beginning about a decade after the implementation of the constitutionally-required SOQ approach to public education, several trends emerged that placed additional pressure upon local governments in funding public education. These trends included: a rising number of pupils in the public schools, an increased level of cost for facility and debt service costs, relatively slow growth in the most relied-upon local tax base, a loss of practical control over the ability to derive revenues from the second most used local tax source, and increased pressures to improve student performance as measured in the context of the State's educational objectives (the Standards of Learning).

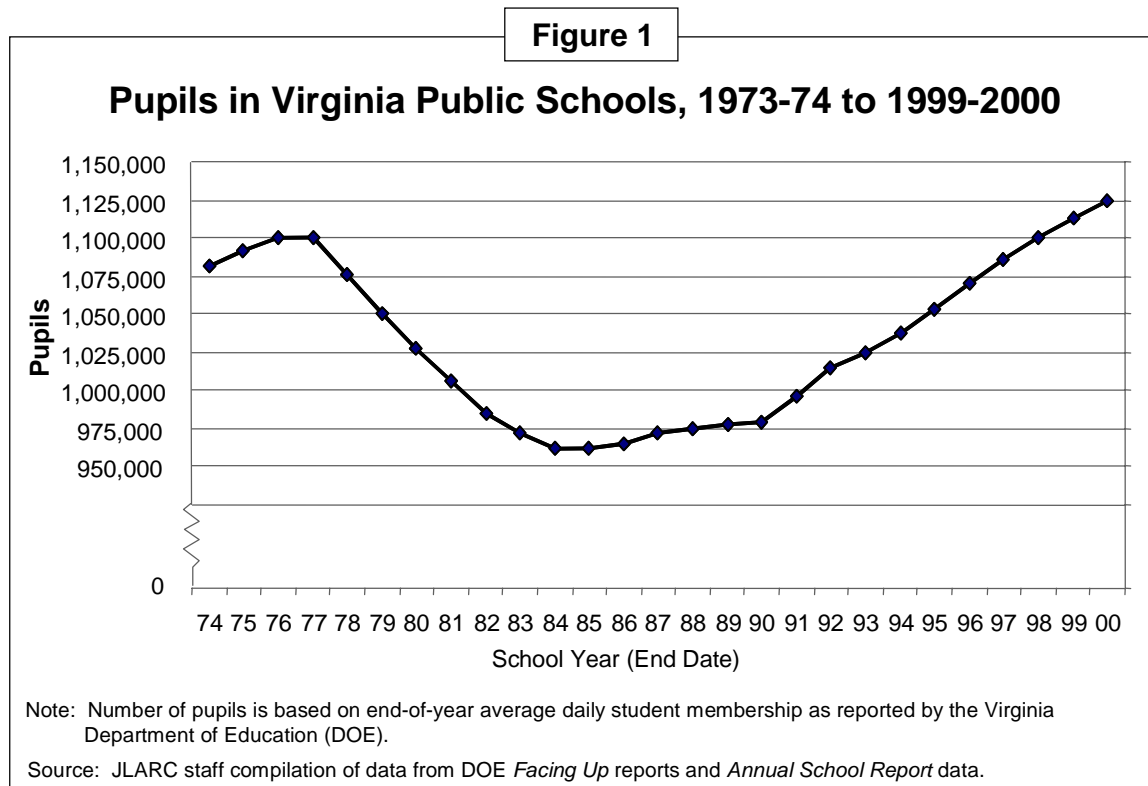
#### **Rising Number of Pupils in the Public Schools**

Figure 1 shows pupil average daily membership (ADM) data from the inception of the SOQ to FY 2000. As can be seen in the figure, during the first decade in which the SOQ was operational, the number of pupils in the public schools statewide declined. While some educational expenditures are relatively fixed, and therefore do not decline with relatively small decreases in ADM, a general decline in ADM offers some opportunities to expend less in some areas, and perhaps use the saved funds to meet other perceived needs, such as increasing teacher salaries.

However, statewide average daily membership reached a bottom level in FY 1985, and has risen in every year since. From FY 1985 to FY 2000, about 140,000 pupils were added to the Virginia public schools. An increasing number of pupils entails additional costs, in areas such as the need for additional teachers, supplies, support staff, and buildings.

#### **School Facility Costs Reached Higher Levels, Beginning in FY 1986**

Figure 2 shows the disbursements that were made for elementary and secondary school facility costs from FY 1974 to FY 2000. (The data focus on facility costs, and not debt service expenditures, because debt service costs are payments made to meet previously-reported facility costs, and therefore a double-counting occurs). As can be seen in the figure, facility expenditures began to surge in FY 1986, the fiscal year following the one in which the number of pupils reached a bottom level. From FY 1985 to FY 1986, expenditures for facility costs went from \$103.2 million to \$183.5 million. From FY 1986 to FY 2000, these expenditures rose from \$183.5 million to \$742.8 million. Although the growth was somewhat uneven from year to year, the overall trend is reflected by an average annual growth rate in per-pupil costs during this time period of 9.3 percent.

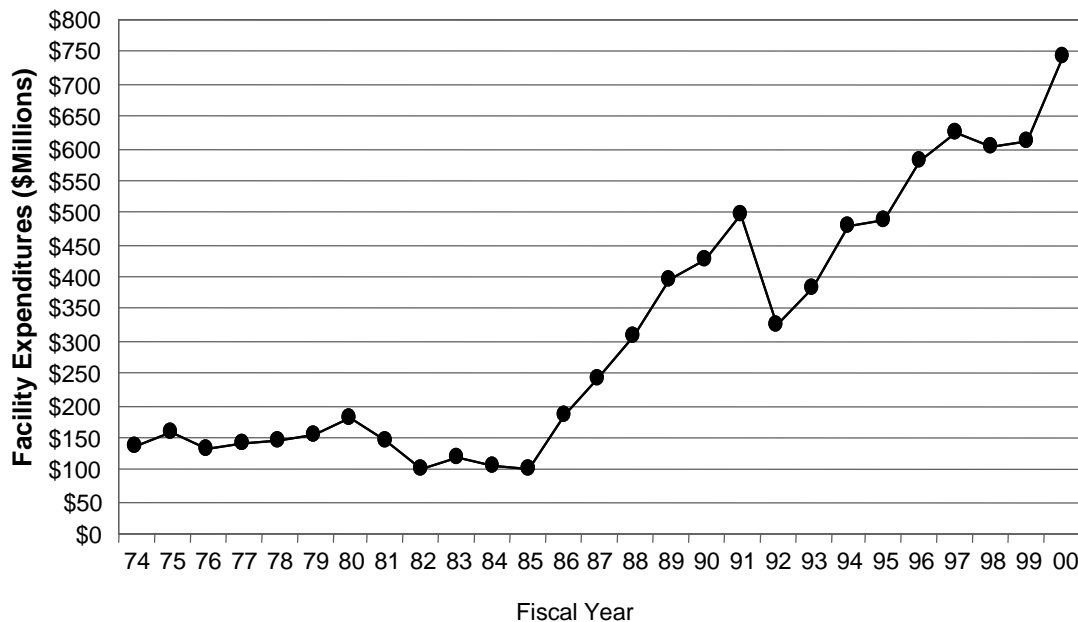
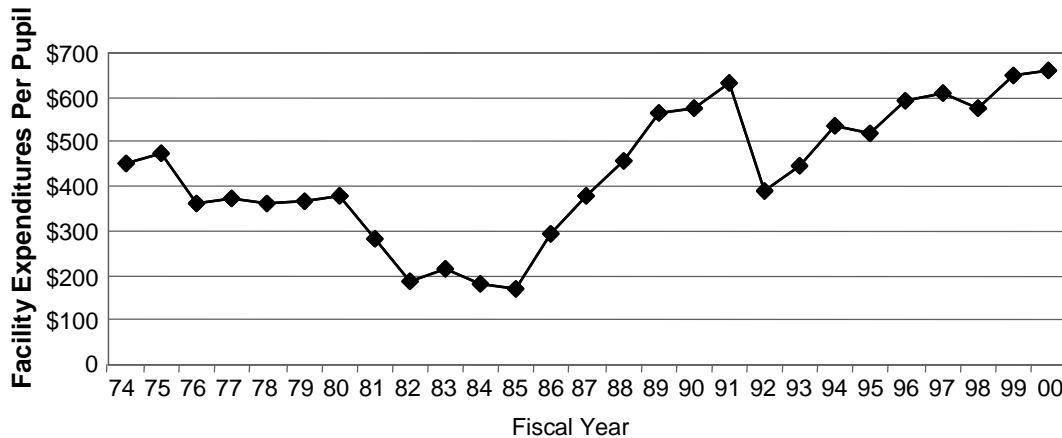


During the period from FY 1974 to FY 1998, the State made some low-interest loans available through the Literary Fund. However, the State did not provide funding in the form of direct aid or grants for capital facility purposes, other than some relatively small subsidy grants using the Literary Fund. Further, the federal government provided very little funding for capital facility purposes. Therefore, the cost burden was borne by the local governments.

There is reason to believe that costs in this area will continue to be high. While a number of localities already appear to have peaked in terms of pupil membership, and statewide growth in pupils is expected to slow over the next several years, some localities continue to grow at high rates. Further, the State has many aging school buildings. About 18 percent of the school buildings in the State were built between 1950 to 1959, and another 26 percent were built between 1960 and 1969. These facts indicate that there will be a need to replace or renovate a large number of buildings.

### **Growth in the Local Real Property Tax Base Was Relatively Slow**

Local governments use a variety of local revenue sources to fund services, including public education. However, in Virginia, the single revenue source upon which localities, on average, are most reliant has been real property (real property taxes consist of a tax on real estate property, and a tax on the real property and tangible personal property of public service corporations). In FY 1986, real property taxes accounted for 45 percent of local revenues. The next largest components of lo-

**Figure 2****Disbursements for School Facilities Costs, FY 1974 to FY 2000****Same Costs, in Constant Dollars Per Pupil (FY 2000 Dollars)**

Note: JLARC staff compilation of DOE annual school report data.

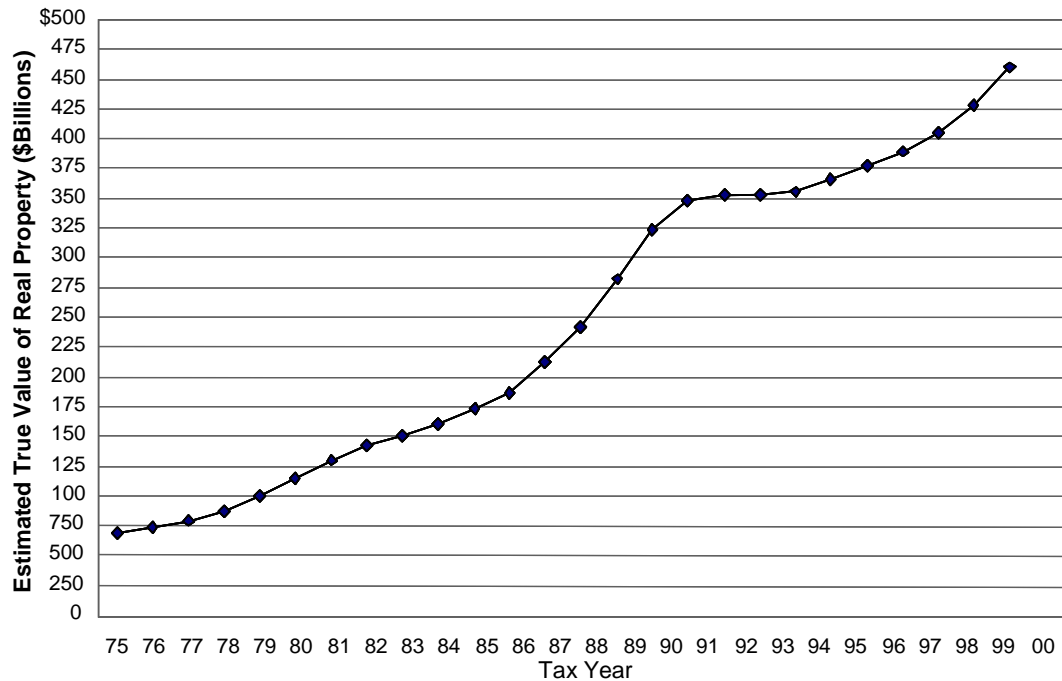
cal revenues were various “non-tax revenue sources” at 14 percent, and the tangible personal property tax at 13 percent. Similarly, in FY 1997, real property taxes accounted for 44 percent of local revenues, various non-tax sources accounted for 16 percent, and the tangible personal property tax accounted for about 11 percent.

Figure 3 shows the growth in the size of the real property tax base, state-wide, from tax year 1985 to tax year 1999. The data are the figures for the estimated true value of real property from the Department of Taxation. Since property

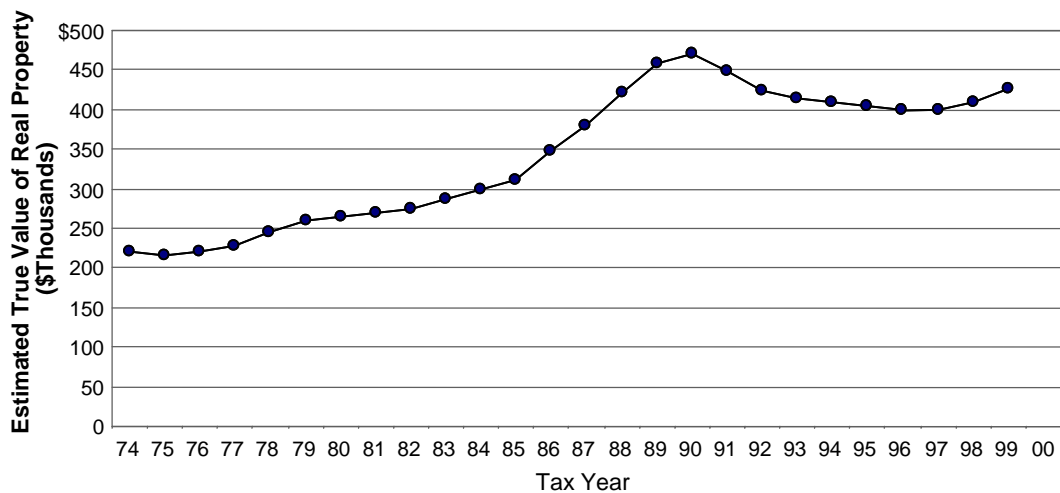


Figure 3

### Estimated True Value of Real Property Statewide Tax Years from 1974 to 1999



### Same Tax Base, in Constant Dollars Per Pupil (FY 2000 Dollars)



Note: Tax base is the estimated true value of real property statewide, expressed in constant calendar year 2000 dollars per pupil in average daily membership.

Source: JLARC staff compilation of data on estimated true values from Department of Taxation assessment sales ratio studies and DOE annual reports.

value assessments are not uniform and may not be “full-value” assessments across localities, the Department of Taxation uses a methodology that compares a sample of real property sales in a locality against the assessed value of those properties. Based on the results of the methodology, the assessed values used by the localities are adjusted based on the sales experience to calculate the true value of the property.

As can be seen in the figure, from 1985 to 1989, or the early years in which localities were faced with a rising number of students to serve and increasing capital outlay costs, the growth in the real property tax base was also strong. To the extent that locality reassessments of property values were made that kept up with the increases in the estimated true value of this tax base, this situation provided many local governments with the opportunity to meet rising education costs, and the demand for increased other services, without the need to increase tax rates.

However, from tax year 1989 to tax year 1998, growth in the estimated true value of property slowed substantially. The average annual growth rate in this tax base from 1989 to 1998 was 3.2 percent.

To put this growth rate in perspective, in tax year 1989, there was \$330,691 of estimated true value real property per pupil in average daily membership (in current dollars, not the FY 2000 constant dollars shown in Figure 3). By tax year 1998, that figure had increased to just \$386,325. That represents a net increase of only 16.8 percent over those years, or an average annual rate of increase of 1.7 percent. In other words, other factors being equal, and to the extent that localities did not increase their real property tax rate, they experienced an average annual per-pupil increase of 1.7 percent from this tax base. To the extent that the localities relied on this tax base and did not increase the tax rate, this is the increase from which localities needed to address cost inflation, grant teacher salary increases, and meet additional demands for services not reflected by the increase in pupil membership alone.

As a point of comparison, during the period from FY 1989 to FY 1998, personal income in Virginia grew at a faster rate than real property. The average annual growth rate in personal income for these years was 5.2 percent. In terms of personal income on a per-pupil basis, in FY 1989 there was about \$120,000 in personal income per pupil, and by FY 1998, there was about \$168,000 in personal income per pupil. This represents an average annual rate of increase in personal income of about 3.8 percent.

Recently available figures from the Department of Taxation indicate that the estimated true value of real property did show some growth in tax year 1999 (about 7.6 percent). Nonetheless, 1999 estimated true value per pupil on a constant dollar basis remained below levels from the late 1980s and early 1990s.

## **For Most Localities, There Has Likely Been a Loss of Practical Control Over Another Major Revenue Source, the Tangible Personal Property Tax**

After real property, the largest tax source of revenue for local governments has been the tangible personal property, which largely consists of taxes upon the value of automobiles. (The second largest source of revenue is the category of “non-tax revenues”, which consists of revenues due to various practices such as the imposition of user fees, and which garnered about 16 percent of local revenues in FY 1997). Article X, Section 1 of the *Constitution of Virginia* establishes property, including personal property, as a subject for local taxation. The *Constitution of Virginia* provides that the property “shall be assessed for local taxation in such manner and at such times as the General Assembly may prescribe.”

In recent years, the State has undertaken a program of personal property tax relief ultimately aimed at the elimination of the payment of personal property taxes by vehicle owners for most vehicles (the tax would still be paid by vehicle owners for the amount of the assessed value of the car above \$20,000).

Local governments have been “held harmless” by this change. That is, local governments have not had to cut services or increase other revenue collections to make up for the revenue that is no longer paid by vehicle owners. Instead, State revenues are now used to pay the tax on behalf of the vehicle owners. Basically, local governments are receiving the payment of this tax from the State. As stated by the Report on the Commission on Virginia’s State and Local Structure for the 21<sup>st</sup> Century, “the provisions of the Personal Property Tax Relief Act of 1998 call for the state to compensate localities for the tax they would have collected...” Under the State’s budget, as adopted in May 2000, in FY 2001 and FY 2002, \$572,392,514 and \$855,404,025 in general fund revenues, respectively, were to be appropriated for personal property tax relief under the plan for the phase-in of this relief.

The size of State payments to local governments to compensate for the tax relief program depends upon the local tax rate and assessments that were in local ordinances as of a date fixed in the statute. One of the concerns of local governments is whether the State will consistently provide reimbursements to them that will be equal to the magnitude of the taxes that would have been collected, based upon the locality’s past practices. As a practical matter, and to remain consistent with the relief from this tax which is intended by the State’s policy, most localities will not be able to use this tax as a tool to generate higher local revenues. Since the August 1, 1997 date fixed by the State for reimbursement purposes, few Virginia localities have increased their personal property tax assessment practices or their tax rates for this revenue source.

## **As the Public Schools Are Challenged to Improve Student Performance, Local Governments Are Finding that Additional Resources Are Needed**

The State is also seeking (through a State curriculum program known as the Standards of Learning and through testing required by the Standards of Accreditation) to challenge the State’s pupils and schools to improve student perform-

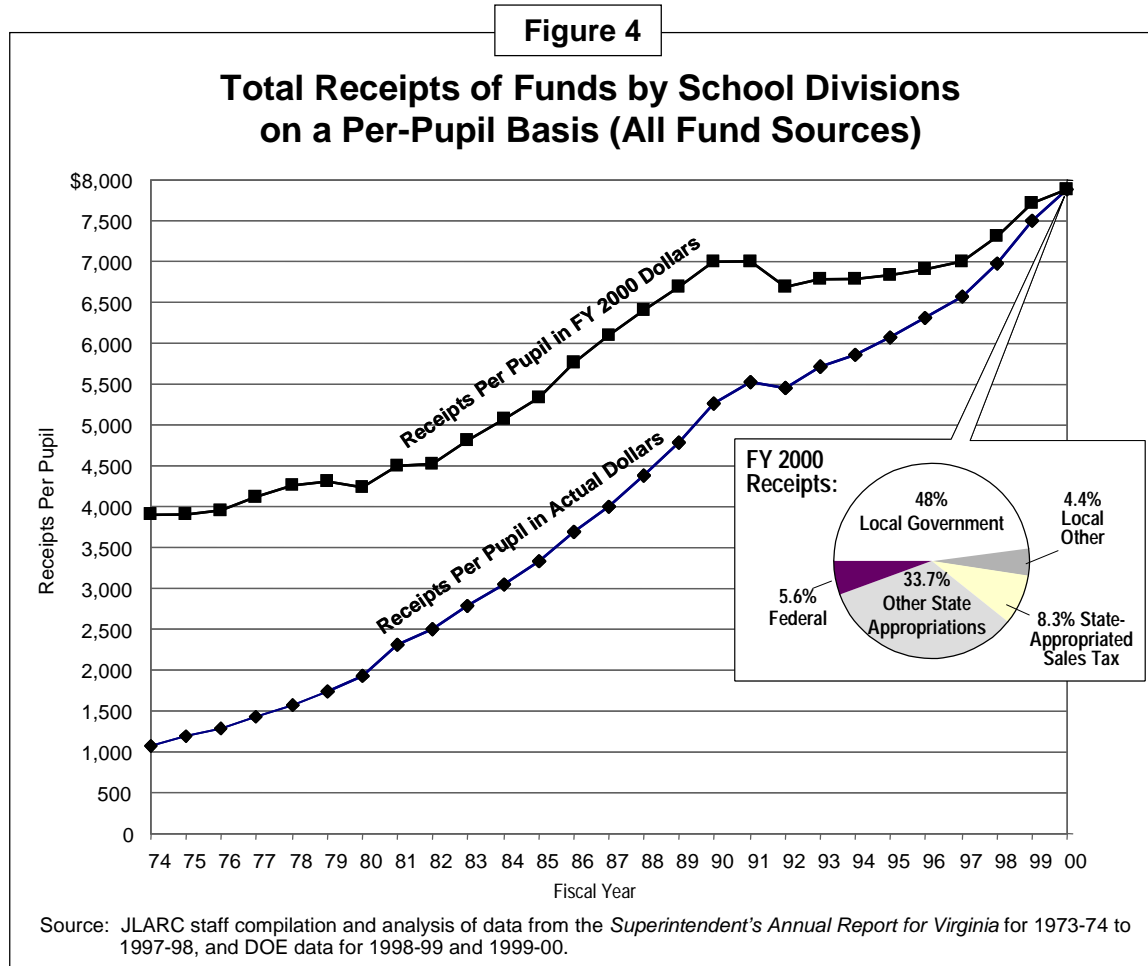
ance and knowledge, and to promote accountability. The Board of Education's Standards of Accreditation indicate that "schools shall be evaluated by the percentage of the school's eligible students who achieve a passing score on the SOL test or other additional tests approved by the Board..." Once fully implemented, schools will be fully accredited when students eligible for the test (there are exceptions for special education and LEP, or Limited English Proficiency, students) meet a pass rate of 70 percent. In school divisions in which one-third or more of the schools are given the rating of "Accreditation Denied", the superintendent is to be evaluated by the local school board, with a copy of the evaluation submitted to the Board of Education.

Local governments and school officials indicate that additional resources are being provided as part of the effort to improve SOL performance. Actions being taken by some include class size reductions, purchases of new textbooks that are aligned with the SOL curriculum, teacher training, remedial instruction programs, or even extended school years. The State has provided funds for some of these purposes, but local funding is also needed. In addition, some of the localities which need to make the greatest improvements in the test scores of their pupils in order to be fully accredited have relatively low local abilities to pay. A review of SOL test scores from the spring of 2000 indicated that a substantial portion of the variation in the average SOL test scores between school divisions appears to be related to three socio-economic factors: percent of pupils on the free lunch program (poverty); percent of adults in the locality with a bachelor's degree or more (adult educational attainment); and percent minority students in fall membership. Students in some school divisions are performing at higher levels than their peers based on socio-economic indicators, but are little more than average or even below average compared to all students.

The Standards of Accreditation require school improvement plans from schools which are "accredited with warning", and these plans may need to call for additional resources. The Standards of Accreditation recognize that the strategies which schools will need to use to make improvements will need to be tailored to fit differing situations. Some strategies may enable progress with relatively limited cost, but other strategies may be costly. The Standards of Accreditation note each school implementation plan shall include "a description of the manner in which local, state, and federal funds are used to support the implementation of the components of this plan."

## **TRENDS IN FUNDING FOR EDUCATION IN VIRGINIA**

Figure 4 shows trends in Virginia public education funding from FY 1974 to FY 2000. The figure shows the receipt of funds on a per-pupil basis from all fund sources. The lower line shows the receipts per pupil in actual dollars, whereas the upper line shows a slower rate of growth once inflation is taken into account by expressing all amounts in terms of their purchasing power in 1999-2000 (that is, constant FY 1999-2000 dollars).



As can be seen in the figure, even in constant per-pupil dollar terms, total education funding grew rapidly from FY 1982 to FY 1990. Both the State and local governments contributed to this growth. (The federal government contribution was relatively flat). With this growth in funding, in 1990-91, Virginia's operating expenditures on a per-pupil basis stood above the national average.

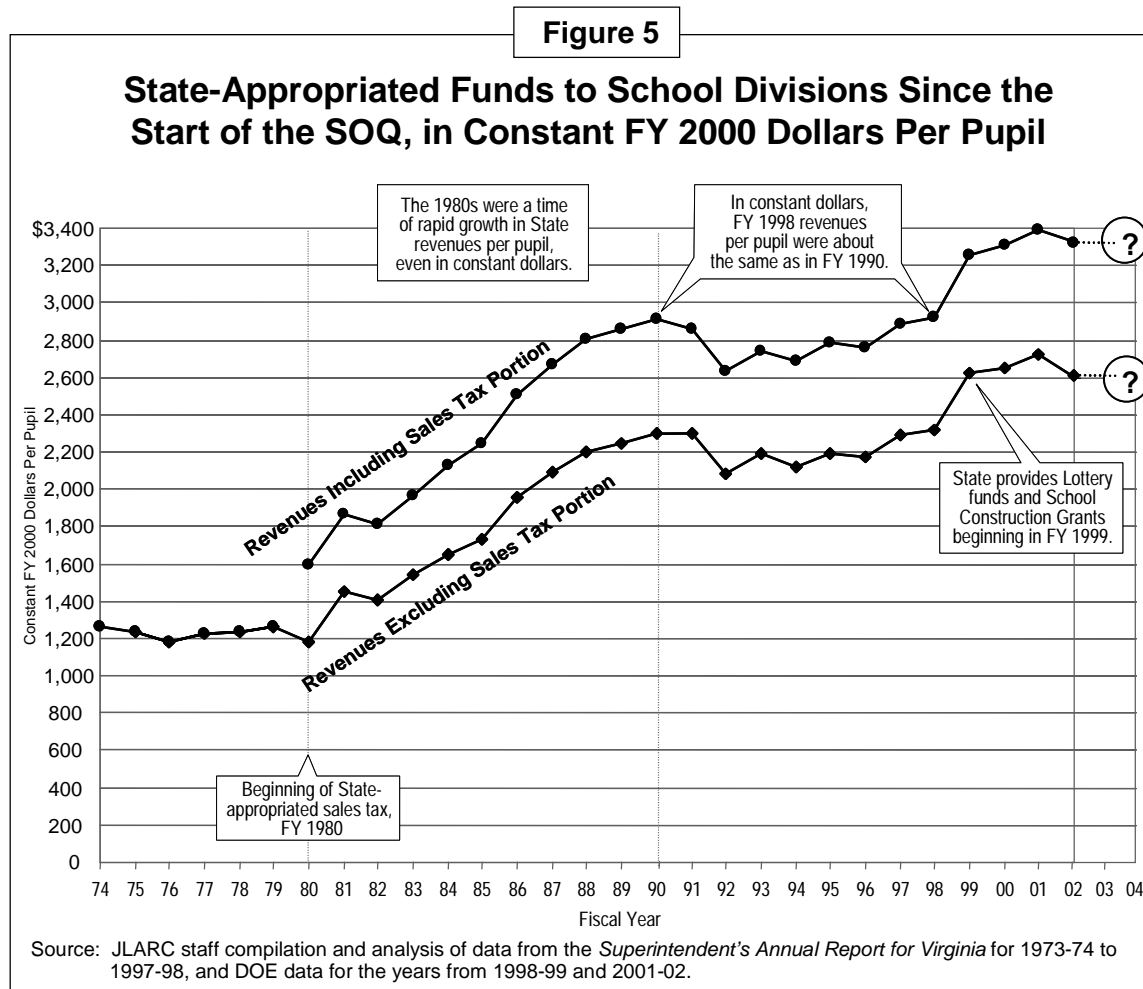
However, during most of the 1990s, State and local funding for public education in Virginia stagnated. Local funding per-pupil, in constant dollars, was generally flat during the period. From FY 1990 to FY 1998, State per-pupil funding in constant dollars was generally at or below the FY 1990 funded level. The funding trend for the 1990s was initiated by fiscal problems in 1991-92 that developed in Virginia and in the nation. With decreased funding available, per pupil expenditures for operating costs in Virginia decreased by a greater amount than in the nation as a whole, and fell below the national average. For several years, Virginia's operating expenditures remained about \$100 or so below the national average, as there was also little real growth in per-pupil funding for public education nationally.

In FY 1998, there was a substantial infusion of additional funds by Virginia's localities. However, it appears that local and State government officials realized that localities would have difficulty continuing to bear cost increases without more assistance from the State. In FY 1999, the State provided a substantial infu-

sion of new dollars, by allocating Lottery Fund dollars and school construction grant funds. With the additional funding provided in FY 1999 and FY 2000, Virginia's operating expenditures per pupil in FY 2000 were about \$6,815 per pupil, or an estimated \$231 above the national average.

Data are currently lacking to examine trends in Virginia in the funding from the various levels of government past FY 2000. State budget amounts for FY 2001 and FY 2002 can be reviewed, however. Figure 5 shows the historical trend in State-appropriated funds based on school division receipts of revenue, and shows the State-appropriated funds for FY 2001 and FY 2002, based on the 2001 Appropriation Act, and the Department of Education's planned allocations to school divisions in FY 2002.

The State's planned allocation level for FY 2002, including the State-appropriated sales tax, represents a one percent increase in actual dollars compared to the amount for FY 2001 (about \$4.015 billion in FY 2002, compared to \$3.971 billion in FY 2001). On a per-pupil, inflation-adjusted basis, State-appropriated funds for FY 2002 will approximately be \$3,339 per pupil, compared to \$3,389 per pupil for FY 2001.





The minimal real growth in the State's planned allocations of aid for education in FY 2002 stems in part from lowered contribution rates to the State employee retirement system on the part of the State and local governments. At the same time, few added costs were proposed for FY 2002 in the December 2000 executive budget bill. As had been the case with the budget bill submitted in December 1999, no salary increase for teachers was proposed in the executive budget. The State did not adopt amendments to the budget for FY 2002, so the level of expenditures for education was largely determined by the Appropriation Act levels from the 2000 Session, with adjustments made to sales tax. With the State facing some possible budget difficulties as FY 2003 approaches, it is unclear what direction State aid per pupil for public education will take in the upcoming biennium.

### **VIRGINIA RESOURCES AND STUDENT PERFORMANCE COMPARED TO OTHER STATES OR NATIONAL AVERAGES**

As part of the context for considering education funding issues in Virginia, it may be helpful to consider how Virginia compares with other states or the national average for certain funding indicators. The average per-pupil operating expenditures of Virginia's public schools were about 3.5 percent above the national average in FY 2000. School staffing levels and student performance levels on State assessment program tests have long tended to be above the national average. However, the percentage of school funding that is from the State is below average, as is the average teacher salary.

***Comparison of Resource Levels.*** Table 1 summarizes Virginia's standing relative to the national average on four measures regarding funding and resource levels for elementary and secondary education. A review of these indicators shows that as of FY 2000, Virginia was above the national average in operating expenditures per pupil. It ranked toward the middle of the states (21<sup>st</sup>) in those expenditures. However, the magnitude of Virginia's expenditures was more heavily driven by local funding, and less driven by State funding, than in many other states. The State's percentage funding share in Virginia ranked 40<sup>th</sup> among the states.

A major factor in Virginia's standing with regard to operating expenditures is the fact that the school divisions in Virginia employ more personnel than the national average. Virginia school divisions, on average, have more teachers, other instructional staff, and support staff per 1,000 pupils than the national average. (Specific figures on teacher and instructional staffing levels are identified later in this report). Virginia also pays about the same average teacher salary as the median state. However, teachers are paid less than the national average salary.

While Virginia ranks toward the middle of the states in rankings of operating expenditures per pupil and average teacher salary levels, critics of the level of resources available in Virginia have frequently pointed to the fact that Virginia's aspiration for elementary and secondary public education appears to be low, based on the fact that expenditures are low relative to the personal income levels of the State. For the purposes of this review, however, the focus was on examining the

<p style="text-align: center;"><b>Table 1</b></p> <p style="text-align: center;"><b>Summary of Virginia's Standing Relative to the National Average on Various Measures Regarding Elementary and Secondary Education</b></p>			
<b>Indicator</b>	<b>Virginia</b>	<b>National Average</b>	<b>Virginia Is ...</b>
Current Expenditures Per-Pupil in Fall Membership (est. 1999-00) *	\$ 6,815 *	\$ 6,584	Above
Percent of Funding Support from State Funds, 1999-00	42 %	About 50 %	Below
Public School System Staff (Teachers, Other Instructional Personnel, and Support) Per 1,000 Pupils in Fall Membership, 1998	130.1	116.4	Above
Average Teacher Salary (1999-00)	\$38,744	\$41,820	Below
<p>* The figures for current expenditures per pupil in fall membership nationally are from the national publication <i>Digest of Education Statistics, 2001</i>. Based on DOE data, it appears that Virginia's FY 2000 total operating expenditures per pupil, expressed in terms of end-of-year average daily membership, was \$6,878, and \$6,815 per pupil in fall membership.</p> <p>Source: JLARC staff compilation and analysis of data from the Virginia Department of Education, the <i>Digest of Education Statistics, 2001</i>, published by the National Center for Education Statistics, the National Education Association's <i>Rankings and Estimates</i>, and the Research and Information Services Department of the American Federation Teachers' Survey and Analysis of Teacher Salary Trends 2000.</p>			

ways in which the State's current standards and cost calculations (which may be viewed as its level of aspiration) differs from that of many Virginia localities. This was the focus of the resolution language that was introduced during the 2000 General Assembly Session calling for a JLARC review of education funding. A key point to consider is that Virginia's standing with regard to indicators such as expenditures per pupil and staffing levels reflects the fact that many localities have chosen to go above and beyond what the State requires and funds.

For example, while arguments are made that classroom sizes in Virginia could be reduced, Virginia's current high standing on teacher staffing levels and its relatively low pupil-teacher ratios are primarily based on the actions of localities. For decades, most Virginia school divisions have provided teaching positions that go beyond State requirements. The State's standards and cost calculations recognize a lower teaching staffing level – that is, a level that happens to approximately be around the national average. And, while arguments are made that Virginia should pursue a goal of making the statewide average teacher salary equal to or above the national average salary, the fact is that the State (and most localities) fund education salary costs at levels which are less than the existing statewide average for teacher salaries.

**Student Performance.** With regard to student performance, Virginia's students tend to perform at or above the national average on standardized tests. Table 2 summarizes Virginia student performance since the time the SOQ began in the mid-1970s. The table shows results for the tests that have been used in the State assessment program and have been standardized to a national norm. A score of 50 represents a score that equals the national average score for the students taking the test in the year that the test was "normed."

As can be seen in the table, over time the particular standardized tests employed changed. Also, since the fall of 1998, the last grade that is tested (on the Stanford 9) is the ninth grade, rather than the 11<sup>th</sup> grade as on previous tests. In addition to the change in tests, it can be seen in the table that the test scores tend to increase from the base year until a new test with a more recent "norm" is established. This tendency makes it difficult to draw conclusions about the efficacy of funding changes or other State programs by examining changes over time in the scores. However, the data do show that over the years, Virginia students have been able to perform around or above the national averages set by the test norm groups.

#### **PRIOR JLARC REVIEW OF EDUCATION FUNDING IN MID-1980s FOCUSED ON SOQ COSTS AND FUNDING**

In the mid-1980s, JLARC staff reviewed SOQ costs and funding. The findings from these reviews were documented in two JLARC reports titled *Funding the Standards of Quality Part I: Assessing SOQ Costs* and *Funding the Standards of Quality Part II: SOQ Costs and Distribution*. The reviews did not assess the adequacy and appropriateness of the standards, and did not cover capital and debt service costs. The reviews did produce a number of changes to the SOQ cost methodology, and contributed to the use of a local ability-to-pay factor in funding more of the SOQ cost accounts. The second report also identified some alternative measures of local ability to pay, but these were not implemented.

The SOQ provide a minimum foundation program for Virginia's school divisions, but do not eliminate differences in spending levels for elementary and secondary education between localities. Local governments are free to spend as much or as little above the required foundation as they are willing and able to pay. In the 1990s, the State's approach to education funding was challenged on disparity grounds in a lawsuit. It was noted that expenditures for public education varied across the school divisions. The State Supreme Court upheld the constitutionality of the State's SOQ funding system in 1994, noting that the General Assembly had carried out its constitutional requirements, and that "nowhere does the Constitution require equal, or substantially equal, funding or programs among and within" the school divisions.

However, concerns have persisted about the adequacy of either the State's standards or the costs that are calculated to meet the standards. In part, concerns stem from the fact that many local governments make expenditures that go beyond the SOQ. Some local governments have expressed a view that the State has not



been a full partner in funding legitimate elementary and secondary needs. These concerns are part of the context for this JLARC review.

## CURRENT JLARC REVIEW

The work on this study began in May 2000. During the summer of 2000, input sessions were conducted by JLARC staff in eight regions of the State. These input sessions provided an opportunity for various interested parties to provide input to the study. Based on matters of interest that had been expressed by legislators (either through resolutions that had been introduced at the 2000 session or interactions with JLARC staff), as well as comments and information from the regional input sessions, JLARC staff identified issue questions for the review.

During the fall of 2000 and the winter of 2000-2001, JLARC staff worked on developing and administering various surveys to collect data needed for the study. In addition, staff of the Virginia Department of Education (DOE) provided substantial assistance, giving JLARC staff access to the data and programs for the SOQ cost and funding model, providing access to various other types of data, and responding to questions.

The final stage of the research, conducted during the spring and early summer of 2001, involved various analyses, including an analysis of trends, statistical analyses regarding education expenditures, an assessment of certain local ability to pay issues, a review of the State funding methodology, and the development of various funding options.

### Study Mandate

During the 2000 Session, five resolutions were introduced calling for a study of State funding for elementary and secondary education. Four of the resolutions requested that the study be conducted by JLARC: SJR 232, HJR 173, HJR 195, and HJR 248. All four resolutions stated that a study was needed, at least in part, because:

many school divisions surpass the minimum requirements of the Standards of Quality, [and] burgeoning educational costs often exceed the Commonwealth's share of the cost of public education, straining local resources.

As a result, the study resolutions called for a study of SOQ funding and of local educational programs and services that exceed the minimum requirements of the SOQ.

Language requiring a JLARC study was also initially included in the Appropriation Act from the 2000 Session. The study resolutions were not reported from House Rules, as the study was anticipated under the Appropriation Act language. However, in April, 2000, the Appropriation Act language directing the JLARC study was vetoed by the Governor. While the veto was sustained, General

Assembly members in leadership positions indicated that the study would be conducted at the direction of the Commission. At its May 2000 Commission meeting, JLARC members unanimously approved the study. More specific study plans were discussed at the December 2000 and May 2001 Commission meetings. The study was conducted to address the issues described in the next section.

## Study Issues

Based on concerns expressed by legislators during the 2000 General Assembly session, broad issue questions for this review of elementary and secondary school costs and funding were identified. Regional input sessions also provided JLARC staff with information about the topical or expenditure areas of greatest concern at the local level, and this helped to guide the priority that was given to exploring various issues. In addition, a JLARC subcommittee on study topic selection requested that the study consider the impact on funding of teacher shortages, as well as local ability to pay issues.

***General Issue Framework for the Study.*** Exhibit 2 shows seven issue questions that were developed during the first phase of the study to generally guide the review. These issue questions were broad in scope.

This study addresses ways in which the State's approach appears to fall short of its responsibility to provide a minimum foundation cost and meet the costs of the SOQ. The costs needed to address any of these shortcomings are identified. The study also, as was requested by legislative members, points out some of the various ways in which Virginia's localities have chosen to spend more than the State standards and funding methodology require.

However, it should be noted that this study is not intended to address the fundamental question of how much more or less funding "should be" provided for public education purposes, as a general matter. It was beyond the scope of this review to precisely define what constitutes a "high quality" education program or to examine education needs, school division by school division. Questions about how much "should" be spent, or the extent to which the State may wish to enhance or decrease its support for public education, are questions that the public and State policy-makers will need to decide, based on factors such as the priority given to education, taxpayer willingness to pay, and perceptions as to the adequacy of current service levels and the desirability of applying more resources. This report provides a number of options, however, in the event that State policy-makers do wish to increase the State's funding of public education.

***Topical or Expenditure Areas that Appeared to Be of Greatest Concern at the Local Level.*** In addition to the broad issue questions identified for the review, certain areas of concern were consistently raised during the summer of 2000 at regional input sessions conducted by JLARC staff for the study. These sessions were held across the State during July and August of 2000, in order to obtain local perspectives and to further define the study issues. The meetings took place in Marion, Roanoke, Charlottesville, Woodbridge, Virginia Beach, Henrico, Tappahan-

**Exhibit 2****Summary of Broad Study Issues**

1. Is the State correctly implementing the SOQ cost methodology, and are the State and all localities fully funding their shares of SOQ costs?
2. Are there improvements or enhancements to the SOQ methodology that appear appropriate?
3. Are there “funding gaps” for State-mandated or sponsored programs, where the State does not fund, or does not adequately fund, a share of the costs?
4. To what extent is funding distributed based on local ability to pay?
5. For what specific practices do localities make expenditures that exceed recognized SOQ costs, and how widespread are these practices? Is the extent to which the practices are used related to local ability to pay? How much is spent for these practices? (The issue includes capital outlay and debt service costs.)
6. What factors should be considered in determining the degree of State support that may be appropriate for local practices that exceed the SOQ?
7. If the General Assembly wishes to enhance the level of State support for elementary and secondary education, what options are available, and what are the associated costs?

Source: JLARC staff exhibit.

nock, and South Hill. Participants in the regional input session process included school division superintendents, school division finance officers, local government officials, and others. The following are six major topical areas of concern that were raised at these sessions, as well as a summary of other concerns.

- **Staffing.** Regional input session participants strongly emphasized their belief that the staffing ratios used in SOQ funding are not adequate. Participants pointed to: school division practices of having smaller class sizes than specified in the SOQ; research indicating student achievement gains with smaller class sizes and in smaller schools; the lack of recognition in the SOQ of the school division practice of hiring resource specialists such as art, music, and physical education teachers; the lack of recognition of the impact of more than five periods in a school day at the secondary level combined with requirements for a planning period; and concerns that the SOQ may not accurately reflect the need for positions such as assistant principals, guidance counselors, reading specialists, safety officers, instructional aides, and school nurses.



- ***Adequacy of Teacher Salaries.*** There was concern that Virginia, along with the rest of the nation, appears to be facing a teacher shortage. This shortage may be most prevalent in the areas of math, science, and special education. According to session participants, the salary levels recognized in the SOQ are a major reason for the loss of both new and experienced teachers to other states, particularly North Carolina and Maryland. Session participants also indicated that there is intense competition among the localities within Virginia to recruit and retain teachers, and that salary has become the major factor that prospective teachers focus upon when making their employment decisions.
- ***Special Education Funding.*** Session participants indicated a belief that SOQ special education staffing ratios have not kept pace with new federal requirements and decisions from the courts. According to participants, these new requirements have forced school divisions to provide more intensive special education services than are prescribed in the standards, thus increasing local expenditures, while State funding has remained more constant on a per-pupil basis. Participants emphasized that a few students with severe disabilities can increase local costs tremendously. However, the cost impact that such students have on a particular locality may not be adequately reflected in the State's calculation of prevailing education costs statewide.
- ***Adequacy of Technology Funding.*** Technology funding was another concern that was consistently voiced across the regions at the input sessions. Although session participants were generally appreciative of the State funding that has been provided to school divisions for hardware and software purchases, two basic concerns remained. Participants expressed the view that State technology funding has not been adequate or consistent enough to meet school divisions' needs. In addition, participants asserted that the State has not provided funding for technology personnel to operate and maintain the equipment. Session participants indicated their belief that technology in the schools provides a significant educational tool, and indicated a desire to build technology funding into the SOQ funding calculation, including both equipment (hardware/software) and technology personnel costs, to the extent that this may not already be done.
- ***Capital Costs.*** Concerns were raised at the input sessions about the increased strain on school facilities that is due to factors such as student population growth, class size reduction, and the pressure to offer additional courses. Participants at the input sessions indicated that the strain on facilities has resulted in the increased use of trailers and portable classrooms. In addition to new construction and renovation needs, participants indicated that facility maintenance is a significant unmet need, especially for localities with aging school buildings. The participants at the regional input sessions were generally appreciative of the recent State funding for capital costs. However, participants

noted that the State funding was a small percentage of their total capital funding needs.

- ***Local Ability to Pay and the Composite Index.*** The level of satisfaction with the State's measure of locality ability to pay for education – the composite index – varied across the State and even within regions.
- ***Other Concerns.*** Participants at the regional input sessions also raised a variety of other concerns. Although these concerns were not reflected statewide, concern was expressed regarding: alternative education costs; gifted education costs; costs related to the State's Standards of Learning program, such as remedial summer school; pupil transportation costs, including a shortage of bus drivers; staff development funding; utility costs that are higher than the statewide prevailing average; and pre-school funding for at-risk four-year olds in Virginia.

## Research Activities

To assess the issues identified for this study, JLARC staff conducted several research activities in addition to the regional input sessions. These activities included data collection tasks, an analysis of the data, and the development of funding options.

***Data Collection.*** There were four major sources of data which JLARC staff used in assessing expenditures for elementary and secondary education. One of these sources, the Annual School Report, contains data that are collected from the school divisions by the Department of Education. The other three major sources of data were collected by JLARC staff.

The major data obtained from the Department of Education were Annual School Report (ASR) data for FY 2000. Through the ASR, the school divisions provide certain financial and statistical data. For example, the ASR contains data on expenditures from the school division budgets broken down into a number of cost categories, and the number of elementary and secondary FTE teachers. In addition, for 1999-2000, school divisions were asked to complete a supplemental schedule on technology expenditures and personnel. The ASR data collected by the Department of Education were provided to JLARC staff in February and March 2001.

While the Annual School Report provides a substantial amount of financial and statistical data, additional information was required to address the study issue of local expenditures beyond the SOQ. To collect the additional data needed, JLARC staff prepared an electronic survey of Virginia school divisions.

The JLARC staff survey of local school divisions was provided to the school divisions by e-mail in October, 2000. Prior to its release, the survey was pro-

vided to a number of school division superintendents and finance officers to obtain their comments, as a pre-test of the instrument. The survey consisted of 15 sections, most of which pertained to the 1999 – 2000 school year, because that was the most recent year for which ASR data would be available within the timeframe of the review. The survey was used to collect data from the school divisions that are not available from other sources, at least not at the same level of detail or for the particular year in question. Among the key data requested by this survey were data on elementary and secondary classroom instructional Full-time Equivalent (FTE) positions broken down into substantial detail, and data on the salary increases adopted over several recent years by the localities for various types of school division personnel. The response rate to this survey was 100 percent, although some school divisions were not able to complete all questions.

In addition to surveying local school divisions, JLARC staff also surveyed regional education programs, and local government budget offices. Regional education programs, which include special, alternative, and vocational education, as well as Governor's schools, received a brief survey to collect data that are not available from the ASR. With regard to local governments, the input sessions for this study revealed that some school-related costs – for example, school resource officers – may not be found in the school board budgets, but rather may be found in other categories of local government budgets. Therefore, a short survey was sent to local government budget offices to collect such local education costs. Localities were told that a non-response would be treated as an indication that there were no such expenditures in their locality. Seventy-nine localities responded to the survey, reporting an additional \$75 million in operating expenditures and about \$48 million in expenditures for debt service purposes.

***Analysis of the Data.*** There were six major components to the assessment of issues for this review. These components included: a review of funding trends over time; an examination of current State education funding practices and levels, both for the SOQ and for non-SOQ purposes; an assessment of locality operating expenditures that exceed the SOQ; development of funding options to meet education operating costs; an assessment of capital outlay funding issues and options; and a review of local share of funding issues, including potential adjustments in calculating local shares using the composite index of local ability to pay.

## REPORT ORGANIZATION

This report has six chapters. The first chapter has provided background information about the Standards of Quality, trends that have increased the pressure faced by local governments in funding education costs, trends in total and State funding for education, a comparison of Virginia to other states and/or the national average for selected resource and student performance indicators, a discussion of the prior JLARC review of education funding, and an overview of the issues and methods for the current JLARC review.

Chapter II provides an assessment of the Board of Education's role in setting SOQ requirements used in funding, the State's estimates of SOQ costs, and the overall administration and oversight of SOQ funding by the State. The third chapter then examines the ways in which school division operating expenditures vary from and exceed what is required by the State SOQ. Chapter IV provides options for the State's recognition of education costs beyond the SOQ. Chapter V discusses issues surrounding State and local cost responsibility for education. Chapter VI concludes the body of the report with an overview of illustrative funding options. Tables showing the statewide impacts of these illustrative funding options are provided in an appendix at the back of this report. Locality-by-locality results for the illustrative options are available from the JLARC web site (<http://jlarc.state.va.us>) or upon request.



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## II. SOQ Requirements and the Funding of SOQ Costs

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In FY 2000, approximately \$7.735 billion was spent in total on public elementary and secondary school operating costs. Of this total, approximately \$4.944 billion was attributed to costs required by the State SOQ (about 63 percent). An additional expenditure of about \$1.861 billion was made by school divisions using funds from local sources to pay for costs beyond the SOQ, however. The size of these local contributions for non-SOQ operational purposes actually exceeded the size of required local SOQ payments (\$1.805 billion). The division expenditures of local funds for non-SOQ purposes far exceeded the expenditure of State non-SOQ funds (about \$454 million in that year) and the federal government payments for public education to the Commonwealth (about \$476 million).

There is substantial interest in why and how school divisions expend more than has been recognized in SOQ costs, through local non-SOQ expenditures. The size of these expenditures is a function of the size of the total SOQ cost toward which localities contribute, which is explored in this chapter, and the size of local expenditures (explored in the next chapter).

This review of the State's approach to the SOQ included an assessment of whether the standards have been kept current over time, and whether the cost calculations have been accurately made and kept current. Questions considered included the following:

- Has the State monitored the adequacy of its resource standards over time, and advanced the standards as circumstances and resources have permitted?
- How does the State ensure that the SOQ cost that is calculated is as "current" as possible; that is, that the cost used is an appropriate estimation of prevailing costs for the year to be funded?
- Are there any components of SOQ costs that are missing from the State's estimates of fully funding the SOQ?

The findings from this review indicate that the State Board of Education needs to be more active in reviewing SOQ resource issues and considering whether the standards are adequate and appropriate relative to current-day practices and to providing a minimum program of high quality instruction. The quantified standards that address instructional staffing levels, for example, have changed little since the early 1980s. The existence of these standards suggest that the State attaches a particular importance to the role of instructional staff in providing a high quality education. However, instructional staffing levels in most school divisions have long exceeded the number of positions produced by the standards, and the gap between actual practice and the standards appears to have widened as time has passed.

With regard to SOQ costs, the historical presumption has been that SOQ costs should be realistic in relation to current, prevailing costs. The State needs to consider adjustments to its estimation of foundation costs for those cost components, such as support costs and teacher salaries, which are not currently addressed by quantified standards of the Board of Education. In estimating SOQ costs, the State needs to make its estimates a more accurate reflection of prevailing costs.

In order to do this, the State should consider restoring costs in areas in which the SOQ cost calculations have become less comprehensive. For example, in the early 1990s, the State ceased to recognize professional administrative staff and administrative clerical staff in the calculations. These costs had been part of the SOQ calculations prior to the JLARC review in the 1980s, and were included in SOQ costs in the JLARC reports. The Standards of Quality specifically enumerate that school divisions are to employ the support personnel, including administrative personnel, that are necessary to the operation of a school system. Dropping these costs from the SOQ cost calculations does not specifically discourage expenditures on administrative costs, because there is no administrative categorical account or mandate that these dollars as calculated must be spent on administration. The practical consequence experienced by school divisions is a decrease in the State's basic aid contribution for education.

The State also needs to consider issues surrounding how to keep the cost estimates current for the year being funded. Under the State's current approach, for example, support costs are only inflated from FY 2000 to FY 2002, in estimating SOQ costs for the upcoming biennium. Then the FY 2002 costs are used to represent SOQ costs in FY 2003 and FY 2004. Similarly, the approach taken to teacher salary increases is unpredictable and is not associated with the prevailing practices of school divisions. From the start of the SOQ in FY 1974 to FY 2000, average teacher salaries in the Commonwealth have shown an increase over the prior year in 26 of 27 years. Only in the particularly difficult economic year of FY 1992 did localities in aggregate fail to increase average salaries. However, the State does not have a policy to take this prevailing practice into account. Since the State also does not have a formal teacher salary goal, DOE does not assume any teacher salary increases in future years in estimating SOQ costs. Therefore, the estimate of SOQ costs that DOE presented to the Board of Education for FY 2003 and FY 2004 contained no increases in teacher salaries beyond FY 2001. DOE staff report, however, that at an October 2001 meeting, the Board of Education took a position that a salary increase should be provided for all three years (FY 2002, FY 2003, and FY 2004).

For this report, JLARC staff estimated SOQ costs based on adjustments to make the State's SOQ cost estimates more reflective of prevailing practice and current costs for the year to be funded. To fund this SOQ cost estimate, the State would need to provide an additional \$480 million in FY 2003 compared to FY 2002 planned allocation levels. This is a 12.0 percent increase in State funding. The increase needed in FY 2004, also compared to FY 2002 planned levels, is about \$580 million. The FY 2004 increase over the FY 2002 planned allocation is about 14.5 percent. However, it is only a 2.2 percent increase over the FY 2003 level.



## **THE ROLE OF THE BOARD OF EDUCATION AND SOQ REQUIREMENTS IN EDUCATION FUNDING**

In recent years, the State Board of Education has been heavily involved in an effort to bring Standards of Learning (SOL) to Virginia schools. The Standards of Learning involve a State curriculum and testing program that seeks to improve the knowledge and performance of Virginia students. This has been a major effort and potentially represents a major transformation in public education in Virginia. The Standards of Learning have been incorporated into the State's SOQ framework. For example, the SOL are now important parts of standards 1 (basic skills, selected programs, and instructional personnel), 3 (accreditation), 5 (training and professional development), and 6 (planning and public involvement) in the codified SOQ.

While it is understandable that the SOL effort has required a substantial portion of the time and attention of recent boards, it appears that other aspects of the SOQ have experienced some neglect. The Board of Education has several constitutional or statutory responsibilities that it needs to give more attention to in the near future. These areas include:

- The adequacy and appropriateness of SOQ resource requirements relative to current conditions;
- The conditions and needs of public education in the Commonwealth; and
- The development of a staffing standard for positions supporting educational technology.

### **Standards Regarding the Minimum SOQ Resource Requirements Have Not Been Routinely Advanced Since the Early 1980's**

Since 1971, the *Constitution of Virginia* has required the Board of Education to determine and prescribe standards of educational quality for local school divisions. These Standards are subject to revision only by the General Assembly. Pursuant to these constitutional requirements, in 1972 the General Assembly adopted a set of Standards of Quality for public education that revised the educational standards that had been determined and prescribed by the Board. The Standards adopted by the General Assembly included personnel standards, program standards, and planning and management standards. The personnel standards, which continue to be a core component of the SOQ today, provided that "there shall be one State-aid elementary school teaching position for every thirty pupils in average daily membership and one State-aid secondary school teaching position for every twenty-three pupils in average daily membership" (1972 Virginia Acts of Assembly, Chapter 732).

The framers of the constitutional revisions envisioned that the SOQ would be modified and updated from time to time according to the needs and condi-

tions of public education. Section 1 of Article VIII of the Constitution states: “Public schools of high quality [are] to be maintained.” Section 2 of the article states that the standards “shall be determined and prescribed from time to time”.

According to the 1969 “Report of the Commission on Constitutional Revisions”:

The language of ‘high quality’ is intended to convey the idea of a progressively higher statewide standard, achievable under present conditions, but to be advanced as circumstances and resources permit. It would clearly be unworkable to enshrine a fixed standard in the Constitution ... (*Report of the Commission on Constitutional Revision, January 1, 1969, page 260*)

For this reason, specific SOQ standards, such as the pupil-teacher ratios, were not included in the revisions to the Constitution.

The Board of Education’s role in initiating changes to the Standards of Quality has also been clear. The *Report of the Commission on the Constitutional Revision* stated that the “standards of quality are to be established by the State Board of Education, the governmental agency most familiar with the needs of the public school system, subject only to revision by the General Assembly.” Volume 2 of the *Commentaries on the Constitution of Virginia* states:

...standards are determined in the first instance by the Board of Education, subject to revision by the Assembly...

Under section 2, the Board of Education has a role which it must play, and the General Assembly has a role which it may play, in the setting of standards of quality. The Board prescribes the standards, but the Assembly, if it chooses to exercise the power, can make the ultimate decision as to what those standards shall be. The Assembly decides not only whether to exercise the power but also what procedures it wants to adopt to review Board standards.

An Attorney General’s opinion from 1973 stated:

Although what items shall comprise the Standards is a matter for the exercise of sound judgment by the Board of Education, subject only to the revision of the General Assembly, the Standards cannot be prescribed in a vacuum but must be realistic in relation to the Commonwealth’s current educational needs and practices.

Table 3 tracks the SOQ instructional position standards for basic education over time. Changes in the maximum class sizes permitted or ratios employed are shown by highlighting the numerical changes in bold type. As can be seen in the

**Table 3**  
**SOQ Class Size Maximums and Pupil-Instructor Ratios**  
**For the Basic Education Program**  
**(Does Not Show the Standards Allowing Larger Classes With the Use of an Aide)**

Year	Kind. Class Size Max.	Kind. Div. Avg. Ratio	Gr. 1 Class Size Max.	Gr. 1 Div. Avg. Ratio	Gr. 2-3 Class Size Max.	Gr. 2-3 Div. Avg. Ratio	Gr. 4-6 Class Size Max.	Gr. 4-6 Div. Avg. Ratio	English Gr. 6-12 Div. Avg. Ratio	Middle and High School Max Ratio	Div. Basic Ratio Per 1,000 Pupils*
77-78	<b>25</b>	--	<b>32</b>	<b>27</b>	<b>32</b>	<b>27</b>	--	--	--	25	48
78-79	25	--	<b>31</b>	<b>26</b>	<b>31</b>	<b>26</b>	<b>35</b>	<b>30</b>	--	25	48
79-80	25	--	<b>30</b>	<b>25</b>	<b>30</b>	<b>25</b>	35	30	--	25	48
80-81	25	<b>21</b>	30	<b>21</b>	30	<b>21</b>	35	<b>21</b>	--	25	48
81-82	25	21	30	21	30	21	35	21	--	25	48
82-83	25	<b>25</b>	30	<b>25</b>	30	<b>25</b>	35	<b>25</b>	--	25	48
83-84	25	25	30	25	30	25	35	25	--	25	48
84-85	25	25	30	25	30	25	35	25	--	25	48
85-86	25	25	30	25	30	25	35	25	--	25	<b>51</b>
86-87	25	25	30	25	30	25	35	25	--	25	51
87-88	25	25	30	25	30	25	35	25	--	25	51
88-89	25	25	30	25	30	25	35	25	--	25	51
89-90	25	25	30	<b>24</b>	30	25	35	25	<b>24</b>	25	51
90-91	25	25	30	24	30	25	35	25	24	25	51
91-92	25	25	30	24	30	25	35	25	24	25	51
92-93	25	25	30	24	30	25	35	25	24	25	51
93-94	25	25	30	24	30	25	35	25	24	25	51
94-95	25	25	30	24	30	25	35	25	24	25	51
95-96	25	25	30	24	30	25	35	25	24	25	51
96-97	25	25	30	24	30	25	35	25	24	25	51
97-98	25	25	30	24	30	25	35	25	24	25	51
98-99	25	25	30	24	30	25	35	25	24	25	51
99-00	25	25	30	24	30	25	35	25	24	25	51
00-01	<b>24</b>	<b>24</b>	30	24	30	<b>24</b>	35	25	24	25	51

**Note: Bold type indicates a new ratio was set.**

FY 1978 to 1983: Two instructional aides could be counted as one instructor; the 25 to 1 ratio only applied to high schools.

FY 1978 – FY 1980: The class size maximums shown are without the use of an aide (with an aide, the maximums increased by five pupils). Special education, remedial education and resource teachers, teacher aides, and ancillary professionals were not counted in computing the school division average. For FY 1979, the SOA included the standards that the average membership in elementary classrooms (grades 4-7) shall not exceed 30 students per teacher, and membership for an individual classroom shall not exceed 35 students per teacher.

FY 1981—FY 1982: Division ratios exclude special education teachers. The kindergarten class size maximum shown is without the use of an aide; the class size maximum with an aide is 30.

FY 1983 – FY 2000: Division and class size ratios exclude special education teachers, principals, assistant principals, counselors, and librarians. The kindergarten class size maximum shown is without the use of an aide; with an aide, the maximum is 30. The middle and high school maximum ratios exclude administrators, librarians, and guidance personnel. The SOA ratios included a maximum class size of 35 for grades 4-7 in elementary schools during this period.

FY 2001: Division and class size ratios exclude special education teachers, principals, assistant principals, counselors, and librarians. The kindergarten class size maximum shown is without the use of an aide; with an aide, it is 29.

\* The "Div. Basic Ratio Per 1,000 Pupils" is a floor for basic instructional FTE positions per 1,000 pupils recognized by the State as part of the SOQ (SOQ costs also include a floor of 6 additional FTEs per 1,000 pupils for special and vocational education, 1.0 FTE per 1,000 for gifted and talented pupils, and 9.0 FTEs per 1,000 remedial students).

Source: JLARC staff analysis of SOQ requirements in the Standards of Quality and Standards of Accreditation.

table, during the late 1970s and early 1980s there were relatively frequent changes to the pupil-instructor standards for the basic education program. Since FY 1983, however, there have been few changes to the pupil-instructor ratios and maximum class size standards.

Between FY 1983 and FY 1989, there was only one change in the pupil-teacher ratios, which was to increase the division-wide basic ratio of instructional personnel from 48 to 51 instructors per 1,000 students. In FY 1990, the division-wide average ratio for first grade was reduced to 24 to one, and a new division-wide pupil teacher ratio of 24 to one was established for English classes in grades six through 12. The standards for basic education were not changed again for 10 years until FY 2001, when the kindergarten maximum class size, the kindergarten average division-wide ratio, and the grades two and three division-wide pupil-teacher ratios were all reduced by one.

During this period of minimal change to the standards, most school divisions consistently provided more instructional positions, and lower class sizes, than provided by the standards. Chapter III of this report documents some of the differences that exist between prevailing school division practices for instructional position staffing and the current SOQ. This information, in conjunction with the fact that there has been only minimal change to the basic education class-size maximums and pupil-teacher ratios in recent years, suggests that a review of the standards by the Board is needed.

In addition, it does not appear that key interpretations that have been given to existing standards in applying SOQ cost calculations have been reviewed in light of changes in education conditions. As will be discussed further in Chapter IV, there are some concerns as to whether certain of the State's current standards, as written and as interpreted in SOQ cost calculations, make realistic assumptions about how school divisions implement those standards. Examples of potentially problematic assumptions include the assumption that school divisions can provide quality elementary instructional programs in various "resource" areas, such as art, music, and physical education, without the use of resource teachers, and the assumption that a required planning period for teachers at the secondary school level does not have an impact on the number of instructional personnel which must be provided and funded.

The Board of Education is considering a proposed amendment to its by-laws that would require the Board to "conduct a review of the Standards of Quality from time to time, but no less than once every two years." This appears to be a positive step toward meeting the Board's constitutional and statutory role.

***Recommendation (1).*** The Board of Education should review the adequacy of current quantified standards pertaining to resource needs, and recommend advances in those standards to the General Assembly, as appropriate relative to current education conditions. In particular, the Board should examine: the need for minimum staffing requirements to address the provision of elementary resource teachers, the reasonableness

and appropriateness of the current maximum class size standards for the elementary grades, and the reasonableness and appropriateness of the maximum division-wide average pupil-teacher ratios for the elementary grades. In addition, a funding standard to support the existing requirement for a planning period at the secondary school level appears to be needed.

### **The Board of Education Needs to Provide an Annual Assessment of the Conditions and Needs of Public Education in Virginia**

In order to adequately advance the standards, it seems that the Board of Education needs to periodically assess the condition and needs of public education. Both Article VIII, Section 5 of the *Constitution of Virginia* and Title 22.1-18 of the *Code of Virginia* include nearly identical language requiring the Board to make annual reports to the Governor and General Assembly regarding the condition and needs of public education, and identifying any school divisions that have failed to meet the Standards of Quality. Article VIII, Section 5 of the Constitution states:

It [the Board] shall make annual reports to the Governor and the General Assembly concerning the condition and needs of public education in the Commonwealth, and shall in such report identify any school divisions which have failed to establish and maintain schools meeting the prescribed standards of quality.

Title 22.1-18 of the *Code of Virginia* reiterates the Board's responsibility to annually report on the conditions and needs of public education and on the Standards of Quality for school divisions:

**Report on education and standards of quality for school divisions; when submitted and effective.** By November 15 of each year, 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. In any year in which amendments to the standards of quality are proposed, such report shall further contain the standards of quality prescribed by the Board for the school divisions of the Commonwealth ...

In response to the constitutional reporting requirement, the Board began providing annual reports on the condition and needs of public education in the 1970's. The initial reports were relatively detailed and provided some useful information addressing public education needs in Virginia, such as problems with SOQ compliance, the number of teachers by endorsement area and the percentage of unendorsed teachers, additional special education personnel needed, the accreditation status of schools, and school construction needs.

However, as the board continued to prepare the annual reports into the 1980s, the reports evolved into more of a vehicle that describes Board and State initiatives, rather than an analysis of the condition and needs of education. Also, based on discussions with DOE staff and a review of DOE's staff library, it is not clear that annual board reports with assessments of the conditions and needs of public education have been consistently produced during the 1990s.

At the June 21, 2001 meeting of the Board of Education, the president of the board acknowledged that the board has a responsibility to periodically review the SOQ. The board president stated that the board had not provided attention to SOQ matters in recent years, and indicated an intent for the board to become more involved again on SOQ matters. Based on the constitutional and statutory expectations of the Board, this intent for the future appears to be appropriate, and the annual report would be one vehicle to help the board make the assessments.

However, materials prepared by DOE staff for the Board to consider this fall reference the requirement for the annual report on needs from the Board as a statutory requirement, and do not reference the constitutional basis of the mandate. DOE staff's suggestion to the Board is that the annual report "include a compendium of the actions that the Board has taken to address issues in public education during the past four years." DOE has suggested a number of categories in which the Board may wish to publicize its efforts. DOE's materials indicate that "each category should include a list of major actions the Board has taken, and each major action would be described in terms of need, issue, or problem addressed and subsequent results." DOE's materials do not provide further suggestions regarding what the report should include.

The focus of the report should be on the present and imminent needs of public education. For example, the *Report of the Commission on Constitutional Revision* said, regarding the constitutional provision:

The Board will be the state institution most intimately acquainted with the condition of public education in Virginia, both as regards its needs and its failures. Under (b) [of Article VIII, Section 5], the Board is to take the initiative, with the assistance of the Superintendent of Public Instruction, in coming to grips with both.

The Superintendent of Public Instruction and the Board of Education should thus focus its review and report on what is still needed in public education.

***Recommendation (2).*** The Board of Education should address the issue of resource needs for the public school system in its constitutionally and statutorily-required annual report on the "condition and needs" of public education in Virginia. To meet the Board's mandate, this annual report should focus on the needs and problems of public education that may require future action.

## **Staffing Standards for Positions Supporting Education Technology Have Not Been Developed**

Amendments to the SOQ in the area of educational technology have directed the Board of Education to become more active in setting SOQ guidelines. Chapter 867, which amended the SOQ by inserting language focused on educational technology, was approved during the 2000 session. The act required the Board to promulgate regulations that integrate technology into educational programs and set guidelines for staffing positions supporting educational technology. The Act also required the Board to integrate technology into the Standards of Learning, review and approve a six-year plan for technology, and include “proficiency in the use of computers and related technology” as a basic educational objective.

The Board appears to have fulfilled these requirements in part. For example, in May 2000 the Board adopted computer technology Standards of Learning to be completed by the end of grade twelve. These standards were distributed to schools in a Superintendent’s memo in June 2000. In addition, DOE is currently working on a revised six-year educational technology plan.

However, the Board has not fulfilled the requirement to promulgate regulations setting a guideline for staffing positions supporting educational technology. Chapter 867 included this requirement in the SOQ by amending Section 22.1-253.13:3 of the *Code of Virginia* (Standard 3 of the SOQ) as follows (amendments in italics):

The Board of Education shall promulgate regulations establishing standards for accreditation...which shall include, but not be limited to... 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 supporting educational technology ...*

As of October 2001, the Board of Education had not promulgated any regulations regarding minimal access to technology resources (such as hardware, software, instructors, or support) that all divisions must make available. In particular, the Board had not developed required staffing standards for positions supporting educational technology, which leaves the new statutory language from the 2000 Session unimplemented. Further, according to DOE staff, the Board has yet to develop an internal draft technology staffing standard. A draft standard, researched and at a minimum informally recommended by the Board, would seem necessary in order to identify some parameters for use in developing any related State funding initiatives.

***Recommendation (3).*** Pursuant to §22.1-253.13:3 of the *Code of Virginia*, the Board of Education should promulgate regulations regarding the integration of educational technology into instructional programs and setting guidelines for staffing positions supporting educational technology.



## THE STATE'S ESTIMATION OF SOQ COSTS

The Constitution of Virginia gives the General Assembly the responsibility to “determine the manner in which funds are to be provided for the cost of maintaining an educational program meeting the prescribed standards of quality.” Thus, the General Assembly is empowered to make the final decisions about SOQ costs. The adequacy of the costs set by the General Assembly to meet the SOQ have never been legally challenged. As indicated in the following, however, it has generally been presumed that the costs must not be arbitrary, and must be realistic in relation to current costs for education that are prevailing in the Commonwealth.

The legislative determination of cost may not be based upon arbitrary estimates with no reasonable relationship to the actual expense (*Virginia Attorney General's opinion, February 1983*).

[in] estimating the cost of implementing the Standards, the General Assembly must take into account the actual cost of education rather than developing cost estimates based on arbitrary figures bearing no relationship to the actual expense of education prevailing in the Commonwealth. (*Virginia Attorney General's opinion, February 1973*).

...the following guidelines are implicit in the Constitution: (1) the Standards of Quality must be realistic in relation to current education practice. (2) The estimate of the cost of the Standards of Quality must be realistic in relation to current costs for education. (*From the first and second reports of the Task Force on Financing the Standards of Quality for Virginia Public Schools, December 1972 and July 1973*).

One of the ways to promote these objectives in the determination of costs is to estimate SOQ costs using a methodology with cost estimation principles that are known, reliable, and independent of factors that are unrelated to the actual expense of education, such as the short-term availability of State funds. Since the origin of the SOQ, methodologies were developed to estimate SOQ costs by a task force on financing the SOQ in the early 1970s and by JLARC staff in the mid-1980s.

The task force methodology, which used statewide average unit costs, was never funded in full by the General Assembly. Instead of the statewide average, the JLARC staff methodology utilized another measure of central tendency to estimate prevailing school division costs. The costs associated with this alternative measure, the linear weighted average, were less than the statewide average. The General Assembly adopted the JLARC staff cost approach in the Appropriation Acts passed at the 1986 to 1988 sessions.

However, the State experienced fiscal problems in the early 1990s, and a number of changes were made during the decade by either the executive or legislative process which had the effect of reducing estimated SOQ costs. As a result of its shifting SOQ assumptions, the State appears to lack consistency in its approach to estimating these costs. While the State continues to use components of the cost methodology from the 1980s as a core, changes in assumptions have been made that appear due to budget problems rather than technical improvements. As a result, the State appears to be in a weaker position to defend its cost estimates as being realistic in relation to current costs for education. The estimated added State costs from adjustments to make the cost estimates more accurate and current for the years being funded is about one billion dollars over the next two fiscal years.

### **Overview of Changes in Methodologies for Estimating SOQ Costs**

In 1972 and 1973, the Task Force for Financing the Standards of Quality developed a methodology for State use. The task force was created by the Governor and consisted of key members of the General Assembly, staff of the Attorney General's office, DOE officials, and others. To estimate SOQ costs in areas not addressed by quantified standards, such as base instructional salary levels and support costs, staff to the task force proposed the use of a statewide average cost, and a statewide average approach was included in reports of the task force in December 1972 and July 1973.

DOE used the task force methodology, including the use of the statewide average, in estimating SOQ costs during the 1970s and first half of the 1980s. However, the General Assembly did not fully fund this estimated cost, but established lesser amounts in the Appropriation Act. The difference between the Department's estimated SOQ cost and the legislatively-established SOQ cost was known as the SOQ "funding gap."

In August 1985, the Board of Education recommended to the Governor an increase of \$518 million dollars to fully fund the State share of the SOQ cost in the 1986-88 biennium. Based on the most current data available as of December 1985, DOE estimated that \$396 million in additional funds would be required in the coming biennium. Also at this time, JLARC staff were examining SOQ cost issues for the General Assembly. JLARC staff developed a new methodology for estimating SOQ costs. Based on the new methodology, JLARC staff estimated that full funding of SOQ costs would only require an addition of \$192 million in the new biennium.

The JLARC staff cost approach was adopted by actions of the 1986 and 1988 General Assembly. The JLARC staff approach entailed a more detailed estimate of the net impact of quantified State standards for instructional personnel. The quantified standards of the Board of Education were taken as a given in this analysis. The JLARC staff methodology also used actual school division unit costs, so that the costs calculated in areas not addressed by quantified standards would have a reasonable relationship to the actual expense of education prevailing in the Commonwealth. A measure of central tendency, the linear weighted average, was applied to actual school division unit costs (salary levels, per-pupil costs) and was

used to estimate the typical expense incurred by school divisions in meeting the Standards of Quality in the base year. The resulting typical unit cost is less than the unit cost produced by the statewide average. The linear weighted average, also known as the “L-estimator”, includes all school division unit costs in calculating a prevailing cost, but gives greatest weight to the unit costs of school divisions that are closest to the median, in a ranking of the unit costs.

All types of support component positions were included in the estimates of prevailing SOQ costs. The JLARC staff methodology kept base year SOQ costs current by using Chase Econometric inflation factors to estimate future changes in support staff compensation levels and in non-personnel costs, and by using State salary goals to project future teacher salary costs.

Since the 1980s, the State has continued to use the linear weighted average as the measure to estimate base year prevailing salary and support costs. However, a number of changes were made during the 1990s in the State’s approach to estimating SOQ costs, as are now calculated by DOE staff. Some of these changes stem from decisions made when the State experienced fiscal problems in the early 1990s. Since the cost estimates are adjusted to fit budgetary assumptions, a SOQ funding gap between methodology and estimated costs no longer exists. However, the changes raise some potential questions as to whether the State’s foundation cost estimates have become less current and less realistic in relation to educational practice. The task force / DOE methodology, the JLARC staff methodology, and the current approach to foundation costs are summarized in Table 4 on the next page.

### **Overview of Proposed Adjustments for Estimating SOQ Costs for FY 2002-04 and for the Future**

For this report, SOQ costs are estimated based on more comprehensively funding SOQ costs, and the use of factors to project costs which, over the long term, should more consistently fulfill the objective of providing for costs which are prevailing in the fiscal years being funded. In a number of areas, this means the use of cost estimation assumptions that differ from current State DOE practice. For example, locally-generated revenues are not deducted from SOQ model results before deriving figures which are characterized as SOQ costs. As another example, the prevailing costs for the majority of central administrative personnel, dropped from SOQ cost estimates by mistake in FY 1993, have been restored to the SOQ cost estimate. The cost-of-competing adjustment figure for support personnel is based on a methodologically-driven percentage. Instructional personnel salary and fringe benefit costs are advanced based on the recent historical rate of increase that school divisions have actually provided. The estimates of support costs re-institute the use of prospective inflation factors.

Table 5 shows the impact upon State SOQ funding, if the costs that are estimated in this report are funded using a 55 percent State share (for an explanation of the origins of the State’s 55 percent share of SOQ costs, see Chapter V). For FY 2003, it is estimated that funding of a 55 percent State share of SOQ costs would actually require about \$480 million in additional State funds over FY 2002 planned

<p><b>Table 4</b></p> <p><b>Comparison of Approaches to Estimate SOQ Costs</b> (changes in the 1990s highlighted in bold)</p>			
<b>Key Areas of Cost Estimation Differences</b>	<b>Task Force / DOE Methodology (Prior to 1986 Session)</b>	<b>JLARC Staff Methodology (1986 and 1988 Sessions)</b>	<b>State's More Recent Approach</b>
Instructional Positions	Focused on 57 FTEs per 1,000 positions.	Uses class, school, and division-wide standards to determine where FTEs above 57 per 1,000 are required.	Based on JLARC staff methodology.
Teacher Salary Base	Statewide average of teacher salaries (total salary compensation statewide divided by number of teachers).	Linear weighted average, using actual average division salaries to determine prevailing cost.	Linear weighted average salary <b>with LEA as unit of analysis.</b> *
Cost of Competing Factor	None used.	Cost of competing factor developed; later report developed separate estimates for instructional and support personnel.	Costs included for instructional personnel; <b>most but not all of estimated costs included for support personnel.</b>
Inclusion of Support Personnel in Cost Calculations	Comprehensive.	Comprehensive.	<b>Professional administrative and clerical staff dropped due to DOE mistake. Change made permanent.</b>
Determination of Support Costs	Statewide Average Per-Pupil Cost	Linear Weighted Average Per-Pupil Costs	Linear Weighted Average Per-Pupil Costs.
Teacher Salary Increases	DOE projected salary costs forward based on percentages needed to achieve or maintain teacher salary goals.	Salary costs projected forward based on percentages needed to achieve or maintain teacher salary goals.	<b>No teacher salary goal. Year-to-year decisions, usually based on State employee raises.</b>
Inflation for Support Costs, Health Insurance Costs	DOE used inflation factors prospectively (for the years in the biennium to be funded).	Also used inflation factors prospectively to estimate support costs.	<b>Prospective inflation factors no longer used.</b> Lack of use in other State programs is stated rationale.
<p>* For several biennia, DOE has been calculating prevailing costs using Local Education Agencies (LEAs) as the unit of analysis, rather than school divisions. Following JLARC staff identification of this discrepancy, DOE staff report using the school division again as the unit of analysis in its 2002-2004 cost estimates. Returning to the school division as the unit of analysis increases estimated SOQ costs for FY 2003 by about \$9 million.</p> <p>Source: JLARC staff summary of differences between historical approaches to estimating the SOQ.</p>			

<b>Table 5</b>  <b>Estimated Increases in State SOQ Costs</b> <b>in FY 2003 and FY 2004</b> (Numbers in parentheses show accumulated increases)		
<b>Step</b>	<b>Estimated FY 2003</b> <b>State Cost</b> <b>Above FY 2002,</b> <b>in millions</b> (above DOE FY 2002 planned allocation levels of \$4.015 billion)	<b>Estimated FY 2004</b> <b>State Cost</b> <b>Above FY 2002,</b> <b>in millions</b> (above DOE planned FY 2002 allocation levels of \$4.015 billion)
<b>Routine updates of the SOQ cost model</b>	<b>+ \$ 174</b> ( + \$ 174 )	<b>+ \$ 190</b> ( + \$ 190 )
<b>Increased State Costs to Fund a More Accurate Estimate of SOQ Costs</b>		
<b>No deduction of locally-generated revenues before calculating State and local shares</b>	<b>+ \$ 48</b> ( + \$ 222 )	<b>+ \$ 49</b> ( + \$ 239 )
<b>Dropped administrative personnel costs restored</b>	<b>+ \$ 74</b> ( + \$ 296 )	<b>+ \$ 74</b> ( + \$ 313 )
<b>Full cost of competing adjustment for support</b>	<b>+ \$ 3</b> ( + \$ 299 )	<b>+ \$ 3</b> ( + \$ 316 )
<b>Increased State Costs to Keep Funding Current With Expected SOQ Costs</b>		
<b>Health insurance pre-mium increases for new biennium</b>	<b>+ \$ 8</b> ( + \$ 307 )	<b>+ \$ 15</b> ( + \$ 331 )
<b>Prospective inflation for non-personnel support</b>	<b>+ \$ 15</b> ( + \$ 322 )	<b>+ \$ 21</b> ( + \$ 352 )
<b>Prevailing support salaries kept current</b>	<b>+ \$ 32</b> ( + \$ 354 )	<b>+ \$ 47</b> ( + \$ 399 )
<b>Instructional personnel salaries kept current</b>	<b>+ \$ 126</b> ( + \$ 480 )	<b>+ \$ 181</b> ( + \$ 580 )
<b>Total Increase Needed, Routine Re-basing PLUS Adjustments</b>	<b>\$ 480</b>	<b>\$ 580</b>
<b>Percent Increase Over Prior Year in State Aid (Sales tax plus State SOQ plus State non-SOQ)</b>	<b>12.0 %</b>	<b>2.2 %**</b>
* Instructional personnel cost increase of 3.72 percent, support increase of 2.25 percent, and a non-SOQ increase of 0 percent.  <b>TOTAL NEW (OR SHIFTED NON-SOQ) STATE FUNDS NEEDED FOR THE BIENNIUM TO FUND THE ESTIMATED COSTS OF THE SOQ (preliminary estimate):</b> <b>\$ 1.060 billion</b>		

allocations. While a substantial increase in SOQ costs between biennia is not unexpected given the size of the SOQ cost base and growth in pupil membership, the estimate for FY 2003 is particularly large due to the costs entailed in making the State's SOQ cost estimates comprehensive and current for the years to be funded. The remainder of this section of the chapter provides a discussion of each of the steps shown in the table that lead to this cost estimate.

**The State's Increased Cost for the SOQ in FY 2003,  
Prior to Proposed Adjustments, Is an Estimated \$174 Million**

As the largest single program of State aid to localities, relatively small percentage increases in the cost for public education can drive the need for substantial additional State funding. For example, a one percent increase in DOE's planned FY 2002 allocation for the SOQ entails an increased State cost of about \$33.4 million, and a three percent increase in SOQ costs entails an increase of just over \$100 million.

JLARC staff's estimate of the increase in State SOQ costs which are due to routine updates to the SOQ cost model total about \$364 million for the 2002-2004 biennium, compared to the FY 2002 planned State allocation. This total consists of an increased cost over FY 2002 of about \$174 million in FY 2003 and about \$190 million in FY 2004.

The increased cost for re-basing the model that is shown for FY 2003 takes into account two changes from the linear weighted average salary figures that the Department of Education had presented at a June 2001 meeting of the Board of Education. JLARC staff found that when executing the calculations for the linear weighted average teacher salaries in FY 2000, the salary results obtained were higher than the salaries that had been presented at the Board meeting. In consulting with DOE staff, it was found that there were two problems with DOE's calculations. First, the department had not yet included salary supplements in its calculation, due to a computer coding error that had occurred in the midst of a system change. DOE corrected this when it was brought to their attention. The inclusion of salary supplements in the base salary leads to an increase of about \$30 million in the State's FY 2003 cost.

Second, the department did not prorate the teacher salaries paid by regional centers to the participating school divisions, but rather treated the regional centers as separate observations in the calculation. DOE staff indicated that this approach has been used for several biennia. This approach had the impact of reducing the linear weighted average salaries that were calculated by DOE in FY 2000. The impact of returning to the school division as the unit of analysis for teacher salary calculations increases the State cost for the SOQ by an estimated \$9 million in each year of the upcoming biennium.

## **JLARC Staff Proposed Adjustments to Fund a More Accurate Estimate of SOQ Costs**

There are at least three changes, identified in this review, which the State should consider in order to provide for a more accurate estimate of SOQ costs. First, the State should consider ending the practice of deducting locally-generated revenue amounts from the SOQ cost calculations. Second, the State should consider restoring the costs for certain administrative personnel to the SOQ cost calculations and to State funding. Third, the State should consider full recognition of the cost of competing adjustment for support personnel.

***Current Treatment of Locally Generated Revenues Is Problematic, and Leads to Reduced SOQ Costs and State SOQ Funding.*** The *Virginia Constitution* gives the General Assembly the responsibility for determining the manner in which funds are provided to support the cost of maintaining the SOQ. According to Article VIII, Section 2:

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 local units of government comprising school divisions.

In order to carry out Section 2, and before apportioning the SOQ costs between the State and the localities, it is necessary for the State to first calculate the full cost of maintaining an educational program that meets the SOQ. This interpretation is consistent with a 1973 report of the State Attorney General on the Constitutional requirements of the Standards of Quality, which indicates the steps the State must go through to appropriately apportion and fund the SOQ costs. According to the report:

...the General Assembly must apportion the cost of establishing and maintaining the Standards of Quality between the Commonwealth and its local units of government. In order to fulfill this last requirement, the General Assembly must take three steps: (1) It must establish the cost of the Standards of Quality; (2) It must establish the fair or equitable share of this cost to be borne by the localities; and (3) It must appropriate from State funds the difference between the share to be borne by the localities and the cost of the Standards.

The State's current approach to calculating SOQ costs, however, does not yield a figure which indicates the total cost of the SOQ – the first step referenced in the Attorney General report. The current methodology subtracts certain locally generated revenue amounts prior to the completion of the calculation of total SOQ costs. This leads to a reduced total SOQ cost calculation, and a reduction in State and locally-required SOQ costs.



Specifically, prior to deducting State SOQ sales tax payments and prior to calculating total Basic Aid costs, DOE deducts the following local revenues items from the Basic Aid calculation: rent, rebates and refunds, special fees, textbook sales, day school tuition, pupil transportation, sales of equipment, bus gas tax refunds, sales of supplies, insurance adjustments, and other funds, such as interest on interest bearing accounts. These revenues are subtracted by deducting a prevailing (linear weighted average) per pupil amount for these revenues from each locality's SOQ Basic Aid cost. According to DOE staff, the State's rationale for subtracting these local revenues from Basic Aid is that: (1) these revenues are available to localities to fund SOQ costs, and (2) by subtracting the revenue prior to calculating per pupil Basic Aid (which is used to generate total Basic Aid costs), the amount that both the State and the localities are required to pay is decreased.

Nonetheless, the practice of deducting prevailing locally generated revenues from SOQ costs should be ended. Because these revenues are deducted from costs prior to the completion of the SOQ cost calculating process, the true, full cost of the SOQ (independent of who is paying) is not provided. Neither the State nor any localities are then accountable for ensuring that the amounts that have been deducted from SOQ costs are actually expended. When SOQ costs are compared from year to year, it is unclear how much of the total costs have been affected by changes in locally generated revenue.

The accuracy of the calculated SOQ costs could be improved if the State discontinued the practice of deducting locally generated revenues from SOQ costs. These revenues should be considered irrelevant to the cost calculations, much as federal fund availability is irrelevant to the cost calculations. Locally-generated revenues should be treated as any other local revenue source; whether a locality chooses to spend these revenues on SOQ purposes or on its own non-SOQ purposes is a local choice, so long as the locality provides enough total funding from local sources to cover its share of SOQ costs.

DOE staff have computed that the total value of the local revenue deduction in FY 2003 is about \$87 million, and it is about \$88 million in FY 2004. By no longer deducting these prevailing revenues from SOQ costs, it is estimated that the State's SOQ cost will increase by about \$48 million in FY 2003 and by about \$49 million in FY 2004.

***Recommendation (4).*** To fully fund the SOQ and improve the accuracy of the Basic Aid cost calculations, the State should discontinue the practice of deducting locally generated revenues from the cost figures that are used in determining total SOQ costs and State and local share responsibility.

***The State Should Recognize the Costs for Types of Administrative Personnel That Were Dropped from SOQ Cost Calculations and State Funding.*** In FY 1993, due to an oversight by DOE staff, certain administrative support personnel costs were dropped from the SOQ cost estimates and State funding amounts that were presented to policymakers. These costs previously had been captured and funded through the support cost portion of the funding model, based upon

prevailing school division practice. When DOE discovered the error the following year, it notified policy-makers that these administrative support personnel costs had been inadvertently dropped from the calculations used to determine basic aid amounts. However, DOE was not directed to restore these costs to the calculations. The SOQ cost model was adjusted so that in the routine calculation, these costs are no longer included.

As a consequence, since the 1995 Session, the Appropriation Act has included specific language providing funding for certain administration costs, other than the costs that were dropped. In Chapter 1073, the Appropriation Act for the 2000-2002 biennium, this language stated:

The appropriations for Basic Aid include the state share of an average per pupil amount estimated at \$77 the first year and \$77 the second year to pay for the cost of administration.

According to DOE staff, the administration positions that are covered by this language (and therefore still included in SOQ costs) are local school board members, superintendents, and assistant superintendents. This language also covers the non-personnel costs for administrative functions.

However, stemming from the time of this error, the State's SOQ cost calculations have not recognized the costs associated with certain administrative clerical/technical staff, and the costs of certain other professional administrative staff (other than the superintendent and assistant superintendents). The positions which are not covered fall under the categories of board services, executive administration services, information services, personnel services, planning services, fiscal services, purchasing services, reprographics, and data processing services.

By not including these costs in the State's funding methodology, the State is not recognizing the full prevailing costs for services which are provided in the school divisions and which are a part of the SOQ. Standard 2 of the SOQ, on support services, specifically states that:

The General Assembly and the Board of Education believe that effective schools must provide and maintain efficient and cost-effective support services to ensure quality education. The General Assembly and the Board of Education further believe that in order to ensure the goal of quality education, local school divisions must have efficient **administrative**, supervisory, and support services...Each local school board shall provide those support services which are necessary for the efficient and cost-effective operation and maintenance of its public schools including, but not limited to, **administration**... Pursuant to the appropriations act, support services shall be funded from basic school aid on the basis of prevailing state-wide costs. (*emphasis in bold print added*)

There is no distinction in the SOQ indicating that some support positions should be recognized to prevailing levels, while others shall not. Based on a State share of 55 percent, the State share of the prevailing costs for these support positions is estimated to be \$74 million in each year of the upcoming biennium.

***The State Should Fully Recognize the Costs of Competing for Support Personnel.*** A cost of competing factor was first proposed in the 1988 JLARC SOQ II report. As described in the SOQ II report, cost of competing refers to the idea that, in ways beyond the control of school divisions, the price school divisions must pay for their personnel can be influenced by the need to compete in a regional labor market. Analysis undertaken for the SOQ II report found this to be the case particularly for localities in the Northern Virginia Planning District (PDC). Based on an analysis undertaken for the SOQ II report and upon State salary surveys, the SOQ II report included a cost of competing adjustment of 12.53 percent for all salaries in the Northern Virginia Planning District (PDC) as part of the estimated SOQ costs. The approach was compatible with the State's standing practice of recognizing a salary differential for its own employees in Northern Virginia.

A 1995 JLARC technical report, *The Cost of Competing in Standards of Quality Funding*, further confirmed the need for a regional cost of competing factor and refined the calculation of the adjustment differential for use in estimating SOQ costs. The 1995 report used a stratified match approach that attempted to match categories of school division positions more closely with selected comparable State classified positions that are provided a Northern Virginia cost of competing differential. Based on the stratified match approach, the JLARC report estimated SOQ costs using an aggregate differential of 9.83 percent for instructional positions (such as teachers), and a separate aggregate differential of 24.61 percent for non-instructional support positions (such as custodial staff). Together, the percentages produced an overall percentage increase for school division personnel in Northern Virginia that was close to the original 12.53 percent figure.

Since the release of the 1995 JLARC report, the State has made several adjustments to both the instructional and the support cost of competing factors to move toward full funding of the differentials stemming from the stratified match approach. Starting with the 1996-1998 biennium and consistent with the 1995 JLARC report, the State adopted 9.83 percent for the cost of competing differential for instructional positions. The 2000-2002 Appropriation Act continues to assume a 9.83 percent cost of competing differential for instructional positions.

However, the State has not been as successful in reaching the goal of fully funding the cost of competing for support salaries. In the 1996-1998 biennium, the State increased the support cost of competing factor to 17.22 percent. During the 1998-2000 biennium, the State continued increasing the support cost of competing factor in each year of the biennium, achieving a factor of 20.92 percent by FY 2000. During the 2000-2002 biennium, the State again increased the support cost of competing factor to 22.77 percent in the first year of the biennium. However, this increase was not funded in FY 2002, leaving the current support cost of competing factor at the FY 2000 level of 20.92 percent.

The State should estimate SOQ costs using the figure for fully funding the cost of competing adjustment for support as well as instructional personnel. If the State wishes to fund a 55 percent share of these estimated SOQ costs, then the State cost would be approximately three million additional dollars in each year of the upcoming biennium.

### **The State Needs to Keep Its Cost Calculations Current with the Years to Be Funded**

Since the State implemented the SOQ in the early 1970s, in every year but one, teacher salaries and overall school division operating expenditures, unadjusted for inflation, have been greater than in the prior year. The one exception to this trend was the exceptionally difficult fiscal year of 1991-92. The trend with regard to salaries and expenditures has been similar in the nation and other states as well.

Just as inflation occurs from year to year with some regularity (although the magnitude can vary considerably), the data indicate that increases in prevailing salary and per pupil support costs have routinely occurred. The implication of this is that if the State wishes to ensure that SOQ costs and State funding levels keep up with prevailing costs in the years to be funded, it needs to provide a level of increase from the previous year or years (that are used as the base) in order to determine an appropriate level of payment for the year to be funded. The increase should at least reflect the local movement in salaries and support costs that is considered likely, in the years to be funded.

***Salary Increases and Support Inflation Factors Were Assumed in the JLARC Reports from the 1980s.*** In the JLARC SOQ I and II reports from the 1980s, salary increases and support inflation were assumed in estimating SOQ costs. Goals for teacher salaries were available that could be used to keep instructional salaries current with likely school division practice. With regard to SOQ support costs, inflation rates from Wharton Econometrics were used to project support costs from the base year (FY 1986, in the JLARC II report) to the years to be funded (an inflation rate for FY 1987, FY 1988, FY 1989, and FY 1990 was therefore applied to determine FY 1990 costs).

***Current State Practices Regarding the Impact of Salary Increases and Support Inflation in Estimating SOQ Costs.*** The State's practice for advancing SOQ salary costs and support costs no longer assumes a need to keep these costs current with the years to be funded. For salary and fringe benefit costs, the State increases SOQ costs from the base year to the start of the budgetary biennium by applying the salary increases actually given by the State (usually the same as the increase provided to State employees) for the years between the base year and the budgetary biennium. Then, State policy-makers consider whether or not the State wishes to provide for salary increases in the coming fiscal years. In recent years when a salary increase has been provided, it has been made effective in the middle of the fiscal year, or the effective date of the salary increases for State employees.

For non-personnel support costs, the State uses WEFA inflation rates to move support costs forward from a base year (for example, FY 2000) to the year prior to when the new biennium begins (for example, FY 2002). FY 2002 support costs are then to be used to represent SOQ support costs in FY 2003 and FY 2004 (see Table 6).

<b>Table 6</b>  <b>Inflation Used in Estimating SOQ Costs for Non-personnel Support Costs Under State's Current Approach</b> (Illustrated for the 2002-2004 Biennium Costs)	
Fiscal Year	SOQ Cost Is ...
2000	The Base Year Per-Pupil Cost
2001	Adjusted for Inflation
2002	Adjusted for Inflation
<b>2003 (Budgetary Year)</b>	<b>No Inflation Assumed</b>
<b>2004 (Budgetary Year)</b>	<b>No Inflation Assumed</b>
Source: DOE staff description and review of the SOQ model calculations.	

***Salary Increases for Teachers Are Not Currently Viewed by Policy-makers as a Part of the State's Responsibility to Keep SOQ Costs Current with Prevailing School Division Practices.*** The State relies heavily upon the concept of prevailing costs, as its methodological approach to calculating SOQ costs and as its justification for the manner in which the costs are calculated. Therefore, it appears to be important for the State to ensure that its estimated SOQ costs, at a minimum, fully and accurately reflect this concept for the years which are to be funded.

For salaries, in years in which the State has pursued ambitious salary goals or otherwise provided salary increases that exceeded prevailing levels, the State has not been vulnerable to criticisms that the costs do not keep pace with prevailing practice. However, since the time of the State's fiscal shortfall in 1991-92, the State has discontinued the pursuit of ambitious salary increases (see Table 7).

Further, in FY 1994, the State effectively increased the locality burden for salary raises for school division personnel, and decreased the State's burden, by making the effective date of the salary increases occur in the middle of the year (as was being done with State employees) rather than at the beginning of the fiscal year. Previously, the State's increases for teacher salaries had been effective at the start of the fiscal year, as was (and continues to be) the prevailing locality practice.

<p><b>Table 7</b></p> <p><b>Teacher Salary Increases as Recommended in Budget Bills and as Provided in Appropriation Acts</b></p>			
<b>Fiscal Year</b>	<b>Budget Bill Proposed Increase Over Prior Year</b>	<b>Appropriation Act Funded Increase Over Prior Year</b>	<b>Effective Date of Salary Increase</b>
1985	10.0%	10.0%	07/01/1984
1986	10.0%	10.0%	07/01/1985
1987	12.80 %	12.80%	07/01/1986
1988	12.80 %	12.80%	07/01/1987
1989	8.00 %	8.00%	07/01/1988
1990	8.00 %	8.00%	07/01/1989
1991	6.30 %	5.00%	07/01/1990
1991 Session addresses fiscal shortfall			
1992	0.00 %	0.00%	--
1993	0.00 %	0.00%	--
1994	0.00 %	<b>3.00%</b>	<b>12/01/1993</b>
1995	<b>2.25 % **</b>	<b>3.25%</b>	<b>12/01/1994</b>
1996	<b>2.25 %</b>	<b>2.25%</b>	<b>12/01/1995</b>
1997	0.00 %	<b>1.75%</b>	<b>01/01/1997</b>
1998	<b>3.00 %</b>	<b>4.00%</b>	<b>01/01/1998</b>
1999	<b>2.25 %</b>	<b>2.25%</b>	<b>01/01/1999</b>
2000	<b>2.25 %</b>	<b>6.00%</b>	<b>01/04/2000</b>
2001	0.00 %	<b>2.40%</b>	<b>12/01/2000</b>
2002	0.00 %	0.00%	--
<p>* The 1990 Appropriation Act also “for the first time” picked up of five percent of the employee share of VRS retirement contributions.</p> <p>** The Budget Bill also called for a one-time payment bonus of 1.72 percent.</p> <p>Source: JLARC staff analysis of budget bills and Appropriation Acts.</p>			

Under this new practice, the State appears to fund a certain level of salary increase. However, in the year in which the increase is given, the State pays for the increase for only about half of the year. Since school divisions typically provide salary increases at the start of the contract year, which is in July, the majority of localities must essentially pay: (1) half of the State’s share of the increase (since State funds are only provided for half of the year), and (2) the local share of the salary increase. For example, the State budget called for a 2.4 percent salary increase in FY 2001, but the effective date for the State was December 1. To provide for an actual 2.4 percent salary increase for the year, a local government with a typical composite index for local ability to pay would need to provide sufficient local funds to fully pay for a 1.63 percent increase, while the State would provide for a full payment for only a 0.77 percent increase.

The provision of salary increases for teachers are not currently viewed by policy-makers as a part of the State's responsibility to fund SOQ costs at appropriate levels and keep SOQ costs current with prevailing school division practice. The extent to which State teacher salary decisions are seen as being separate from the issue of the State's SOQ funding responsibilities was illustrated when the executive branch stated in December 2000 that the proposed State budget provided for teacher salary increases in FY 2002. The budget provided a reduction in State retirement system contribution rates (a rate reduction which applied to all employers participating in the retirement system, including State entities). Executive branch officials indicated that the locality cost savings from the rate reduction could and should be used by local governments to pay for teacher salary increases. The State was considered to have contributed to the end of increasing teacher salaries by setting the policy that led to the locality savings, and could use its own savings for other purposes. Under this perspective, the State was not seen as having a responsibility for affirmatively sharing in the added costs that would be due to the salary increases if the localities used their savings to pay salary increases. Ultimately, when a budget impasse occurred, no State-funded salary increase was assumed in SOQ costs for FY 2002, as had been the executive branch's position.

Looking to the future, Table 8 shows the difference that it would make in assuming that SOQ costs are to keep pace with likely prevailing practices, as best as that can be known prospectively. In FY 2001, the increase used for full funding of prevailing salaries is based on the prevailing instructional personnel salary raises that school divisions reported for that year on the JLARC school division survey, adjusted for historical slippage rates between salary raises given and actual increases

<b>Table 8</b>  <b>Comparison of Approach to Teacher Salaries Currently Used in State Aid to an Approach Fully Anticipating and Recognizing Prevailing Salary Levels (Example: Elementary teacher salaries)</b>				
Fiscal Year	State's Assumption	State Budget Salary	Assumptions to Keep SOQ Salary Costs Current	Anticipated SOQ Salary Costs
<b>(The base year FY 2000 linear weighted average salary was \$34,546).</b>				
2001	2.4 percent	<b>\$35,375</b>	3.66 percent	<b>\$35,810</b>
2002	0	<b>\$35,375</b>	2.79 percent	<b>\$36,809</b>
2003	0 percent?	<b>\$35,375 + ?</b>	2.79 percent	<b>\$37,836</b>
2004	0 percent?	<b>\$35,375 + ?</b>	2.79 percent	<b>\$38,892</b>
Source: JLARC staff analysis. The FY 2001 increase of 3.66 percent was estimated based on data provided by the school divisions from the fall of 2000 to the spring of 2001. The increase in the following years (2.79 percent) is based on the mid-point of the average rate of increase provided across all divisions during the last three and the last five fiscal years.				

in the average salaries paid. The 2.79 percent rate of increase assumed in future years is based on the historical rate of increase in average teacher salaries in the years from FY 1994-95 to FY 1999-00.

If school division salaries in the end are less than the salaries that can be anticipated based on past prevailing practice, then at worst the State will have gone somewhat beyond its SOQ cost responsibilities, and will fund a salary that may be closer to the statewide average (and the national average) than to the State's current measure of prevailing salaries (the linear weighted average). However, in not funding these increases, the State risks not fully identifying and supporting the minimum costs of the Standards of Quality.

***Support Inflation Is Not Used Prospectively, Reducing the Extent to Which SOQ Cost Estimates Appear to be Current for the Years Being Funded.*** SOQ cost estimates shown in the JLARC reports from the mid-1980s included support inflation factors, as did the State budgets that were prepared to implement the findings from those studies. According to DOE staff, during the 1990-1992 biennium, inflation was only provided for support costs through the first year of the biennium. Within-biennium inflation adjustments were dropped completely from the SOQ in the 1992-1994 biennium.

The document *Summary of 1994 Budget Actions*, prepared by legislative staff in March 1994, explained the action that was taken with respect to the budget figures for FY 1995 and FY 1996:

***Updating Inflation Rates.*** The cost of funding the SOQ is based, in part, on the prevailing spending experience of local school divisions. Prevailing costs are calculated for each of the SOQ categories, based on data from the Annual School Reports. Because actual data available from the Annual School Reports lags budget development by two or more years, these costs are inflated to account for two years of actual inflation and an additional two years of projected inflation. Consistent with budgeting practices in the rest of state government, the 1994-96 budget recognized inflation for the first two years only. Inflation factors have not been applied prospectively to the 1994-95 and 1995-96 years. This change resulted in a savings of \$89.9 million (GF).

Setting aside the unique status of SOQ costs, however, there are problems with this rationale. Inflationary increases are provided in the forecasted needs for the second largest State appropriation besides public education, the Medicaid budget. The Medicaid budget is driven by approximately seventy separate forecasts. The basic elements of these forecasts are a projection using the historical growth rate in unit costs, and a projection using historic growth in the number of units. By projecting future costs based on historical growth rates in unit costs which were impacted by inflation, future funding for Medicaid includes an inflationary element which helps to keep those costs current. More recently, too, the Virginia Depart-



ment of Transportation (VDOT) has started prospectively apply inflation assumptions in its estimates of future construction costs. It is anticipated that through this approach, VDOT will obtain more accurate and realistic cost estimates.

DOE SOQ cost estimates reflect the new State approach. DOE does not estimate an increase in SOQ support per-pupil costs beyond the year that precedes the biennium to be funded. In effect, the State estimates and funds FY 2002 costs in FY 2003 and FY 2004.

Under the Virginia Constitution, education is a fundamental right, and the Standards of Quality, as the constitutionally-required program to achieve the State's education goals, have a particularly strong claim to be funded as fully and accurately as possible. It appears appropriate to include inflation factors in the cost estimates, in order to minimize the likelihood that this important cost will be underestimated. Therefore, in the estimates of SOQ costs for this report, inflation factors from WEFA were applied in FY 2003 and FY 2004. The estimated added cost to the State, if it funds a 55 percent share of these costs, would be approximately \$47 million in FY 2003 (\$32 million for support personnel salaries and \$15 million for non-personnel support, and \$68 million in FY 2004 (\$47 million in support personnel salaries, and \$21 million in non-personnel support).

***State Practices Regarding Fringe Benefit Calculations Also Reduce SOQ Cost Estimates.*** Three of the four major fringe benefit costs that are recognized in SOQ costs are salary-driven. These benefits are Virginia Retirement System (VRS) benefits, group life insurance, and social security benefits. For these benefits, the State applies a rate to the salary base. For the 2002-2004 biennium, the fringe benefit rates used in the estimates are as follows: the VRS rate for instructional and professional support positions is 4.24 percent, and it is 4.83 percent for non-professional support positions; the Social Security rate is 7.65 percent; and the group life insurance rate is 0.32 percent. Therefore, to the extent that the State does not recognize and fund the full estimated SOQ salary costs for instructional and support positions, the State also does not fully recognize the related fringe benefit costs.

In addition to the salary-related issues that have already been discussed, however, there are two additional ways in which the fringe benefit costs are less than calculated using the JLARC staff methodology. First, the State includes a one month roll-over in its calculation of fringe benefit costs. In calculating SOQ fringe benefit rates for a given year, and pursuant to the Appropriation Act, DOE calculates 11/12 of the costs based on the salary costs and fringe benefit rates of the budgetary year in question, and 1/12 of the cost based on the salary costs and fringe benefit rates from the previous year. Second, as is the case for support costs, the State does not provide within-biennium inflation for the fourth major fringe benefit which is part of SOQ costs, the health care premium. That is, in calculating fringe benefit costs, the State no longer provides an inflationary increase for the health insurance premium beyond the fiscal year preceding the biennium to be funded.

For health insurance, a flat premium amount is provided for each State-recognized instructional and support position. According to DOE, the State dropped the use of a prospective inflation approach for the health insurance premium in the 1992-1994 biennium, when the recognition of inflation prospectively for several other SOQ cost factors was dropped. Again, this is a departure from the methodology presented in the JLARC SOQ I and SOQ II reports. The JLARC methodology included inflation for health care costs both up to and within the budgetary biennium. In the 1986 SOQ I report, the Chase Econometrics inflation indices for health services was used to project the health care premium, and in the 1988 SOQ II report, the Wharton Econometrics medical cost index was used to project the health care premium.

The prevailing health care premium in FY 2000 was \$2,533. According to the State's current methodology, this premium will be inflated to \$2,787 to account for inflation up through 2002. (The State currently uses the inflation factors provided by the WEFA Group). The \$2,787 health care premium amount will be used to calculate fringe benefits in the 2002-2004 biennium. If the health care premium amount were adjusted to account for projected inflation in FY 2003 and FY 2004, consistent with the JLARC methodology in the SOQ I and SOQ II reports, the premium would be \$2,921 and \$3,044 in the first and second years of the 2002-2004 biennium.

***Increased State Costs to Pay a 55 Percent Share of SOQ Costs Which Are Current with the Years Being Funded.*** As was shown in the overview table on page 38 of this chapter, proposed adjustments to the recent approach to estimating SOQ costs will cost the State an additional \$306 million in FY 2003, and an additional \$390 million in FY 2004, above routine re-basing of the costs. Thus, the total increased cost to the State over FY 2002 planned allocations in FY 2003 is \$480 million, and the total increased cost to the State in FY 2004 over FY 2002 planned allocations is \$580 million. About \$125 million of these increased costs in FY 2003, and about \$126 million of these costs in FY 2004, are due to changes to provide for a more accurate estimate of SOQ costs. In addition, about \$181 million of these costs in FY 2003, and about \$264 million of these costs in FY 2004, are due to the price of keeping SOQ cost calculations current with likely prevailing salaries for the years to be funded, following two fiscal years in which the State provided only a 2.4 percent salary increase in the first year.

The General Assembly may wish to direct that in its future estimates of SOQ costs, the Department of Education should compute and report cost calculations which represent the use of the adjustments proposed in this report. DOE could be directed to include in its calculation, for example, the estimated costs of keeping instructional salaries current based on prevailing salary increases from the recent past. The calculation should also recognize support inflation through the years to be funded, if technically-based projections indicate that some inflation is likely. If State budget decision-makers believe that a lesser budgeted cost is appropriate than is calculated by DOE, then a lesser budgeted cost may be established in the Appropriation Act than is estimated by DOE, as was the historical practice in the 1970s and 1980s, or the State may decrease its percentage contribution to the SOQ. Under current circumstances, however, the State's estimate of SOQ costs is influenced by

year-to-year budget decisions in areas in which the prevailing cost concept and the need to keep the costs current should probably apply.

***Recommendation (5).*** The General Assembly may wish to provide sufficient funding in FY 2003 and FY 2004 to provide a State share of 55 percent of the costs of funding the SOQ as estimated using methods in this report, and therefore provide for a State share based upon the anticipated prevailing costs in those fiscal years. This would be accomplished by: ending the deduction of locally-generated revenues from SOQ costs, funding prevailing salaries at the full anticipated level in the budgetary biennium, funding fringe benefit costs at the full anticipated level in the budgetary biennium, recognizing administrative personnel costs in the calculation of prevailing support costs, funding prevailing support costs at the full anticipated level in the budgetary biennium, and fully funding the cost of competing factor for support salaries in the Northern Virginia PDC at 24.61 percent.

***Recommendation (6).*** The General Assembly may wish to direct that the Department of Education should estimate SOQ costs based on principles consistent with producing a current, prevailing cost. This cost estimate should be distinguished, as needed, from adjustments that are made to produce the State budget.

## THE ADMINISTRATION AND OVERSIGHT OF SOQ FUNDING

During this review, several issues were identified regarding the State's administration and oversight of the SOQ funding system. The most important of these issues are the need for accurate special education child count data, and the need for oversight to ensure that local governments are fully funding their share of SOQ costs.

With regard to special education data, JLARC staff have discovered some concerns regarding the reliability of the special education child count data which is furnished by the DOE special education unit to the budget unit for use in SOQ cost calculations. The data do not appear to be fully reliable in classifying pupils based on the proportion of time spent in regular and special education classes. Inaccurate data on this factor can have some large cost implications. For example, it appears that the data which DOE is using for one Virginia locality produces an estimated FTE count which is 500 positions less than is counted by the SOQ funding model using the same locality's data from the previous two years. It is highly unlikely that all three data points for this locality are accurate.

With regard to local SOQ funding, there is constitutional language requiring that "each unit of local government shall provide its portion of such [SOQ] cost by local taxes or from other available funds." There also is statutory and Appropriation Act language of a long-standing nature that requires that localities fully fund their share, also known as their local effort. Department of Education staff check at

the start of the school year to see if self-reported planned locality appropriations appear sufficient to fully fund the required local match for the SOQ. However, there appears to be some ambiguity over who, if anyone, has the authority at the end of the year to audit whether localities actually met their required local effort amounts.

DOE staff indicate that in their view, they do not have the authority to conduct follow-up audits to ensure that localities have met their required local effort amounts. DOE staff also stated that if they were to undertake this responsibility, some changes in the data that they collect from localities would be required in order to adequately assess whether the required local expenditures are actually made.

Some additional issues with regard to the administration and oversight of SOQ funding also include:

- the practice of reducing State per-pupil basic aid funding in the event of an underforecast of pupil membership, required by current Appropriation Act language, does not appear to be consistent with the principle of fully meeting SOQ costs;
- improved data on technology expenditures are still needed to better determine the extent to which the State participates in these expenditures;
- there is a general need to improve the directions for the Annual School Report, and provide more frequent training, to ensure greater consistency in reporting;
- there is a need for more complete documentation of the SOQ cost calculation models used by the Department of Education; and
- DOE should update cost factors and execute the funding model annually.

### **Problems with the Special Education Child Counts which Are Currently Being Used in Estimating SOQ Costs**

JLARC staff recently identified some areas of concern regarding the accuracy and reliability of the federally-mandated December 1<sup>st</sup> child count data. These data are furnished to DOE's budget office by the DOE special education unit. To develop the data, school divisions provide information on their special education pupils to the DOE special education unit. This DOE unit then classifies the pupils as either "self-contained" or "resource" pupils. A self-contained pupil spends more than half of the school day receiving special education services, while a resource pupil spends less than half of the school day receiving these services. The data are aggregated by DOE staff, and then provided to school divisions prior to the creation of DOE's annual report to the United States Department of Education. DOE's budget office uses the data to calculate special education FTEs and SOQ costs.

***A Comparison of SOQ Model FTEs and Division FTEs Revealed that Some Divisions Have Unusually High or Low Proportions of Self-Contained Pupils in the Child Count Data.*** The child count appears to have accuracy problems, in that the number of self-contained pupils appears to be over-estimated in some divisions, and under-estimated in others. This has some large cost implications. Pupils who are reported as being served in self-contained classrooms generate a much larger number of teacher FTEs in the SOQ funding model than resource pupils, owing to the much smaller pupil-to-teacher ratios in self-contained classrooms.

For example, Pittsylvania County reported to JLARC staff that it employs 73.90 special education teacher FTEs. However, JLARC staff observed that in running DOE's cost model, Pittsylvania was calculated to require 163.37 special education teacher FTEs. An examination of the child count data provided by DOE reveals that 64 percent of Pittsylvania's special education pupils were classified as self-contained. On average, 28 percent of special education pupils in Virginia school divisions are classified as self-contained.

In a conversation with JLARC staff, Pittsylvania school division officials indicated that most of the specific learning disabled (SLD) pupils in the division are resource pupils. However, the child count data used by DOE in the funding model indicate that Pittsylvania has 453 self-contained SLD pupils and only 36 SLD resource pupils. School division officials also indicated that at the high school level, only 17 percent of the division's Educable Mentally Retarded (EMR) pupils are classified as self-contained. The data used by DOE in the SOQ model, however, indicate that 90 percent of these pupils are self-contained, generating a much larger number of teacher FTEs. A review of DOE's data reveals that other divisions also have percentages of self-contained pupils that substantially exceed that of the average school division, and may be suspect.

***Wide Variations Between Years in the Data for Some Divisions Also Provides Reason for Concern.*** In reviewing the child count data provided by DOE for 1998, 1999, and 2000, JLARC staff found indications that the number of self-contained pupils may differ substantially in some divisions from one year to the next. In this instance, unreliable child count data may also cause the SOQ model to generate fewer special education FTEs than are actually required, such that the State pays for fewer FTEs than are needed. For example, the December 1998 data for Virginia Beach indicates that 33 percent of its special education pupils were self-contained. In December 1999, that figure decreased to 29 percent. However, according to the most recent data provided by DOE to JLARC staff, in December 2000 only 3 percent of special education pupils in Virginia Beach were self-contained. In response to questions from JLARC staff, a Virginia Beach school official indicated that no policy changes have been implemented that would lead to a major shift in the percentage of self-contained pupils from 1999 to 2000.

***Special Education Child Count Data Can Have a Substantial Impact on Division Cost Calculations.*** The cost implications of problems in the child count data may be seen by examining the number of special education FTEs calculated for Virginia Beach by the SOQ model. Using December 1998 federal child

count data, the SOQ model calculates that Virginia Beach requires 991.90 special education FTEs (teachers and aides). Using December 1999 data, the calculated FTE amount was 978.62. However, using December 2000 data, the model calculates that Virginia Beach requires only 469.75 special education FTEs, or a decrease of more than half (and more than 500 FTEs).

These apparent problems with the special education child count data seem to entail both over and under-counts, and it appears unlikely that corrections to these data will have a major impact upon the size of the statewide cost estimates contained in this report. However, the data can make a major difference on a locality-by-locality basis. The child count problem was detected by JLARC staff shortly before this report was to be completed. Therefore, an adjustment was made in the cost estimates to address the clear problem with Virginia Beach's data, but it was not possible to fully assess all of the data. As will be discussed further in Chapter III, in the longer-term, it appears that further study of the process used to generate the child count is needed.

***Recommendation (7).*** The Department of Education needs to review and make corrections as appropriate to the special education child count data that are currently being used in the SOQ funding model. In the future, DOE staff need to develop procedures to better ensure the reliability of these data.

#### **The General Assembly May Wish to Explicitly Direct that DOE Annually Examine Whether All Localities Have Provided the Required Local Share of the SOQ**

State law requires that all localities provide their share of the required costs of the SOQ. To help implement the provisions of State law regarding required local shares, State Appropriation Acts since 1974 have required that calculations be performed to determine if these requirements have been met. However, the entity which is expected to perform these calculations is not explicitly specified in the Act, so DOE staff believe they lack authority to conduct this assessment. DOE staff request data on locality budgets toward the beginning of the fiscal year, to see if funds are budgeted to meet required local SOQ costs, but do not examine expenditures after-the-fact to ensure that the funds are expended. The General Assembly may wish to specify that DOE staff annually examine required local SOQ expenditures, and may wish to update Appropriation Act requirements regarding how compliance with the required local shares should be calculated.

***Localities Are Required to Provide for the Local Share of SOQ Costs.*** Article VIII, Section 2 of the *Constitution of Virginia* provides that the General Assembly shall provide for the apportionment of SOQ costs between the Commonwealth and local governments. It further provides that "each unit of local government shall provide its portion of such cost by local taxes or from other available funds."

Section 22.1-94 of the *Code of Virginia* requires local governments to make appropriations (from funds derived through local taxes and any other sources) to local school boards that are sufficient to maintain an educational program that meets the Standards of Quality. Section 22.1-94 states:

A governing body may make appropriations to a school board from the funds derived from local levies and from any other funds available, for operation, capital outlay and debt service in the public schools. Such appropriations shall be not less than the cost apportioned to the governing body for maintaining an educational program meeting the standards of quality for the several school divisions prescribed as provided by law...

The *Code of Virginia* also requires the Board of Education to monitor whether local governments are appropriating sufficient funds to support their required SOQ costs, and provides consequences in cases where localities are not appropriating sufficient funds to meet their SOQ cost requirements. Section 22.1-97 prescribes that:

Whenever the governing body of a county, city or town fails or refuses to appropriate funds sufficient to provide that portion of the cost apportioned to such county, city or town by law for maintaining an educational program meeting the standards of quality for the several school divisions prescribed as provided by law, the Board of Education shall notify the Attorney General of such failure or refusal in writing signed by the president of the Board. Upon receipt of such notification, it shall be the duty of the Attorney General to file in the circuit court for the county, city, or town a petition for a writ of mandamus directing and requiring such governing body to make forthwith such appropriation as is required by law...

***Three Localities May Not Have Met Their Required Local Share in FY 2000.*** As indicated in input sessions held for this study during 2000, most local officials and school divisions are under the impression that the SOQ, and the cost calculated for the SOQ, are set at such a minimum level that all school divisions in the State exceed – and perhaps easily exceed – them. In fact, it is true that most school divisions do substantially exceed their required local match. However, a review of FY 2000 data from DOE (the most recent year for which final operating expenditure and revenue data are currently available), indicates that at least three localities may not have provided sufficient local funds to provide for their required local SOQ match. These localities are shown in Table 9.

Currently, no one at the State level is routinely verifying that local governments have, in fact, met the required local effort amounts, and the data are not complete enough currently to determine this with certainty. Consequently, it is not known for certain that these three localities met (or did not meet) required local effort amounts in FY 2000. The extent to which these localities, or other localities, did not meet their required local expenditures in other years is also not known. The col-

<p style="text-align: center;"><b>Table 9</b></p> <p style="text-align: center;"><b>Localities with an Estimated Local Operating Expenditure in FY 2000 That Was Less Than Their Required Effort for the SOQ<sup>1</sup></b></p>					
Locality	Total SOQ Costs <sup>2</sup>	State SOQ and Sales Tax	Required Local Effort	Estimated <sup>3</sup> Local Operating Expenditures	Estimated Difference from Local Match Required
<b>Dollars</b>					
Highland	\$2,202,155	\$1,138,228	\$1,063,927	\$919,624	- \$144,303
Lee	\$19,427,725	\$16,448,593	\$2,979,132	\$2,289,839	- \$689,293
Petersburg	\$27,299,015	\$22,042,646	\$5,256,369	\$4,738,114	- \$ 518,255
<b>Dollars Per Pupil (Based on March 31, 2000 Unadjusted ADM)</b>					
Highland	\$6,203	\$3,206	\$2,997	\$2,590	- \$406
Lee	\$5,029	\$4,258	\$771	\$593	- \$178
Petersburg	\$4,575	\$3,694	\$881	\$794	- \$87
<p><sup>1</sup> Based on a preliminary assessment with available data. It should be noted that Highland County has a higher per-pupil SOQ cost than any other locality.</p> <p><sup>2</sup> Does not include local operating expenditures for non-regular day school programs, non-LEA programs, or facilities.</p> <p><sup>3</sup> Local operating expenditures are calculated by subtracting sales tax, state operating funds, and federal operating funds from total expenditures. To the extent that federal or State operating funds are expended for non-regular day school programs, non-LEA programs, or facilities, this could serve to depress the estimated local operating expenditures. Currently, the data are not detailed enough to disaggregate the federal and State funds used for these purposes in all cases.</p> <p>Source: JLARC staff analysis of operating expenditures and revenue data from the Department of Education for FY 2000.</p>					

lection of some additional data and the routine verification of expenditures needs to be done to ensure SOQ cost compliance.

***DOE Staff Ask for Local Budgeted Amounts in the Fall, But Do Not Review Actual Expenditures.*** DOE staff ask at the start of the school year that school divisions report on whether they are slated to receive adequate local budget funds to meet the required local effort. In the fall, school divisions must complete and return a required local effort certification form which indicates that sufficient funds have been appropriated to maintain the SOQ.

At the beginning of the school year when DOE's process takes place, however, the required local effort amounts are only estimates, and final local expenditures may vary from budgeted expenses. In addition, pupil counts for the school year are not yet known. DOE acknowledges the latter fact by requesting that school divisions regularly review their ADM levels:

Superintendents of school divisions whose local appropriations are only slightly in excess of the amount required to maintain local effort for the SOQ are requested to review their average



daily membership (ADM) totals monthly. These superintendents must request additional local funding from the local governing body whenever unplanned increases in ADM reduce local funding below the required level. Documentation of all supplemental appropriations resulting from these requests should be furnished to the Department.

DOE needs to continue to conduct its review early in the school year, so that it is alerted to school divisions in which there may be local funding problems. Through this process, DOE also may be able to identify if there any local governments which appear to be failing or refusing to even appropriate the amounts which appear necessary to meet the SOQ. This information can assist the Board of Education in meeting its responsibility in Section 22.1-97 of the *Code of Virginia* with regard to notifying the Attorney General when localities fail or refuse to appropriate sufficient funding to support the SOQ.

However, the State also needs later verification that the required local effort amounts have been expended. Presently, it is unclear if school divisions and localities have actually been held accountable for the required amounts. This prevents the State and citizens in the various localities from knowing with some certainty that local governments have fully funded their share of SOQ costs.

***The General Assembly May Wish to Explicitly Name DOE as the Entity Responsible for Calculating Whether Required Local Expenditures Have Been Met.*** State Appropriation Acts since 1974 have required that calculations be performed “in order to determine if a school division has met its required local expenditure for the Standards of Quality”. To ascertain whether the necessary expenditures have been made, it would seem that the calculations should employ actual revenue and expenditure data. The calculation starts with the use of data on total operating expenditures, reported revenues from non-local sources (such as State and federal revenues) are to be deducted, and a determination is to be made as to whether the remaining amount is equal to or greater than the required local expenditure for the SOQ.

However, DOE staff do not conduct an audit to see if expenditures are made, because they believe that they currently lack authority to do this. DOE staff point out that the Appropriation Act language, employed for 27 years, is ambiguous because it does not specify who is to do this calculation. It could be DOE, or it could be the divisions or the localities themselves, or it could be another party. DOE staff indicate that DOE needs to be explicitly named as having the charge to conduct this assessment, if the General Assembly wishes for this compliance check to be completed.

Given the importance of the required local share issue, there is a good reason for the State to require that follow-up audits be conducted. The Department of Education appears to be the best candidate to conduct audits of required local effort because the Board of Education already has related authority in this area, and DOE is best positioned to receive the data necessary to conduct follow-up audits.

The local government and the school division have a vested interest in the outcome and cannot appropriately be given this role.

***Some Implementation Details May Need to Be Addressed Regarding Data Collection, the Calculation Methodology, and the Handling of Non-Compliance.*** DOE staff have indicated that their data collection instruments, specifically the Annual School Report, would require modifications if they are to be used as a tool to check local compliance. While DOE's data instruments may need minor modifications, it appears that DOE largely has the data instruments in place that would be needed to monitor local compliance with required local effort.

In the Superintendent's Annual Report, DOE already reports on total operating expenditures by school division and on school division receipts of revenue by source. Table 15 of the ASR report includes the total operational expenditures for each school division. Sales tax revenue, and State and federal revenue available for operating purposes, can be deducted from the total operational expenditures, leaving only the local revenues and appropriations. This local funding should equal at least the total required local effort amount, as calculated by DOE. At least an initial assessment can be made based on these data, and the locality and school divisions can be informed of the result and additional documentation can be requested as necessary.

Although Table 15 contains most of the data necessary to determine whether localities have met their Required Local Effort, several modifications are required if this table is to be used to reliably determine whether localities have met their SOQ obligation. First, although local funds for non-regular day school programs and non-LEA programs are not included in Table 15, such funds may be included in State and federal amounts. Table 15 also includes State school construction funds and the portion of lottery funds that must be used for non-recurring costs. While these funds may be used for technology and classroom equipment costs that could be construed as operational, they may also be used towards facility costs (the data are not currently detailed enough to make these distinctions). Finally, Table 15 erroneously counts State funds from other agencies as local.

It may also be desirable to amend the description of the calculations that are provided in the Appropriation Act to make that calculation consistent with the calculation approach described above. The Appropriation Act calculation does not count certain local revenues for purposes of determining whether the required local effort has been met. These local revenue items include "receipts for gasoline tax refunds, tuition from another county or city, other payments from another county or city, and payments from ... others." The Act also appears to prevent local carry-forward balances from being counted for purposes of meeting required local effort.

These provisions appear to be overly restrictive and may be obsolete. These restrictions on local revenue sources have been included in the Act since the 1970s. DOE staff are uncertain of the origins of these requirements, but indicate that these sources may be excluded because they are less reliable than other funds on a year-to-year basis. However, that does not appear to be a strong reason for excluding them in calculating local effort amounts for the years in which the revenues

are available. Section 22.1-95 of the *Code of Virginia*, for example, which addresses the duty of localities to levy school taxes in order to meet the SOQ, also indicates that the cost may be paid by taxes “together with other available funds.”

It should be noted that using the more stringent Appropriation Act calculation, it appears that additional localities may not have met their required local share in FY 2000, based on their Annual School Report data. Bland County spent carry-over funds in FY 2000 of almost \$390,000. Without credit for this expenditure, Bland would have been under its estimated local SOQ share amount by more than \$300,000. Without credit for the expenditure of tuition payments from other localities, it is unclear whether the Town of Colonial Beach would have met its required local share.

In a September 2001 letter to JLARC staff, DOE staff further indicate their view that the department does not have sufficient authority to take action in cases where localities have not met their required local effort amounts.

The Department would likely need additional authority ... to act proactively in the event underexpenditure occurred. While the appropriation act clearly indicates that any unspent SOQ funds must be paid by the locality into the state’s general fund, it is unclear what action the Department could or should take after the close of the fiscal year in response to localities that appear to have not met their required local effort.

Although clarification may be needed, it appears that the Board of Education has authority to act if localities are found to have not provided adequate funds. Section 22.1-97 of the *Code of Virginia* requires the Board of Education to notify the Attorney General in cases where a locality fails or refuses to appropriate sufficient funds to meet the SOQ. While Section 22.1-97 appears to be directed towards instances in which the Board makes the determination during the school year that a locality has failed to fully fund its share of SOQ costs, the language does not appear to preclude a retrospective identification of localities failing to meet their required local effort amounts. However, the General Assembly may wish to clarify §22.1-97 to more clearly state how and when a locality’s failure to appropriate sufficient SOQ funds is to be determined by the department and the Board of Education. Also, the General Assembly and the Executive Branch may need to work to develop language regarding the consequences when a locality is found to have provided insufficient funds to support the SOQ.

A locality found in non-compliance could be placed on a probationary status for the following school year, with regular review from DOE throughout the school year on the status of its funding. In such a case, if the locality failed to appropriate adequate funds in the second year as indicated by the Board, the Attorney General could file a petition for a writ of mandamus in accordance with Title 22.1-97 of the *Code of Virginia*. The locality could also be required to appropriate funds retroactively to make up for the shortfall in the prior year.

**Recommendation (8).** The General Assembly may wish to consider expanding upon Appropriation Act language to explicitly provide that the Department of Education is to perform calculations annually to determine if required local expenditures for the SOQ have been met. The General Assembly may also wish to consider revising the calculation methodology described in the Appropriation Act by which this determination is to be made. The General Assembly may also wish to elaborate upon the actions which need to be taken by a locality, or by the State if the locality is unwilling to respond to the problem, when it is found retrospectively to have failed to provide sufficient funding to support the required local effort amount.

### **State Per-Pupil Basic Aid Funding Is Reduced in the Event of an Underforecast of ADM**

The appropriated levels for SOQ budget accounts are based on division-level forecasts of March 31<sup>st</sup> ADM. DOE has the responsibility for producing the ADM forecasts on which the appropriations levels are based. If DOE overforecasts ADM, any “overappropriation” of funds is either reprogrammed to other education accounts or reverts back to the general fund. If, however, DOE underforecasts ADM, the State’s practice is to prorate State SOQ funds and required local effort amounts downward by the amount of the underforecast. This practice is consistent with the guidance in recent appropriation acts. The Appropriation Act for 2000-2002 stated that:

In the event the statewide number of pupils in ADM exceeds the number estimated as the basis for this appropriation, the locality’s state share of the Basic Operation Cost and the required local share will be reduced proportionately so that this appropriation will not be exceeded.

By not providing additional funds to cover the increased number of students, however, neither the State nor the localities fund their shares of the full SOQ costs.

Due to an underforecast of ADM for the 1999-2000 school year, DOE prorated the amount of funding provided to school divisions for FY 2000. DOE was able to reduce the shortfall by reprogramming funds from other accounts. However, a remaining shortfall of \$2.8 million in Basic Aid was prorated across localities.

DOE indicated its intention to local school divisions of continuing this practice of prorating SOQ funding based on an underforecast of ADM in FY 2001, if needed. A March 9, 2001 Superintendent’s Memo stated that:

Please remember that final payments will be based on actual enrollment and participation data...Please be aware, however, that certain accounts may have to be prorated if actual enrollment increases the state’s cost beyond the appropriations contained in the current budget.

The current practice of prorating SOQ funds in the case of an under-forecast of ADM prevents full funding of the SOQ in those years. The Governor and the General Assembly may wish to end the requirement, which has been contained in recent Appropriation Acts, that a proportional reduction be made in Basic Aid funding when there is an under-forecast of ADM. DOE should work with the Department of Planning and Budget to ensure that adequate funds are transferred to fully fund SOQ costs when a shortfall in funds occurs due to a under-projection. If funds from outside of the education budget are not available, then a pro-ratio or transfer of funds from non-SOQ accounts, such as Lottery Funds, should be made.

***Recommendation (9).*** The Governor and the General Assembly may wish to end the requirement for a proportional reduction in Basic Operation Costs for the SOQ if the statewide number of pupils exceeds estimated ADM. In the event that there is an under-forecast of ADM, the Department of Education and the Department of Planning and Budget should work to ensure that sufficient funds for the full funding of SOQ costs are available, through the reprogramming of budgeted State funds.

#### **Some Issues Regarding Annual School Report (ASR) Data Need to Be Addressed**

One of the ways in which SOQ cost calculations could be improved, as well as the quality of data that are available for analytical purposes, is to make some improvements to the collection of data through the Annual School Report. The Annual School Report is an important source of data for the State for SOQ cost calculations as well as for general information about education costs and funding. There is a need to obtain greater consistency of reporting by school divisions in some areas of the ASR.

In addition, there is a need to consider whether good data can be collected that reflect local government expenditures for education activities which, due solely to locality budget practice, are paid outside of the locality's education budget. These costs therefore are not captured as education costs in the State's data or in the calculation of statewide prevailing costs.

Technology is one of the areas in which DOE has begun an effort to get school divisions to specify these expenditures, and obtain greater consistency in where the expenditures are reported. This effort needs to continue. In addition, there are other aspects of the ASR in which the definitions used on the report need to be improved. Also, more frequent training on the ASR is needed for the school division personnel who complete this report.

***FY 2001 Technology Expenditure Data, Once Available, May Better Enable the State to Determine Its Participation Level in Funding These Costs.*** In a variety of forums, including the regional input sessions that JLARC staff held during July and August of 2000, school divisions and local governments have indicated to JLARC staff that adequate funding for technology has become an increasing source of concern. Although local officials and school division personnel

are generally appreciative of the State funding that has been provided to school divisions for hardware and software purchases, two basic concerns appear to remain. Localities have expressed the view that technology funding has not been adequate or consistent enough to meet school divisions' needs. In addition, they asserted that the State has not provided funding for technology personnel to operate and maintain the equipment. Many localities have indicated their belief that technology in the schools provides a significant educational tool, and have indicated a desire to build technology funding into the SOQ funding calculation, including both equipment (hardware/software) and technology personnel costs.

Data have been inadequate, however, to determine the extent to which the State participates now in paying for school division technology costs. This is because technology costs have not been specified separately in the Annual School Report, but rather have been embedded with all other operational costs. Because technology costs have been grouped with other costs, the State is likely paying for more technology costs through its calculations of prevailing operational costs than many school divisions may be acknowledging. In addition to providing an undetermined level of support for technology costs through prevailing SOQ costs, in recent years the State has provided technology funding through technology specific initiatives, including the educational technology payments initiative, and as of FY 2002, a new technology support payments program.

Pursuant to an Appropriation Act directive, DOE sought FY 2000 data from school divisions on technology specific expenditures. The Appropriation Act required that:

The Department of Education shall collect, as part of the financial section of the Annual School Report, effective with the 1999-2000 school year, and annually thereafter, data on the expenditures of local school divisions for educational technology, to include hardware, software, and required infrastructure modifications.

For the 1999-2000 school year, the technology expenditure data was collected on Schedule H of the 1999-2000 Annual School Report. The data in Schedule H are useful for determining how much localities spent on technology in FY 2000. However, because these technology costs are still embedded in the base operational costs, and because the base operation costs are what DOE uses for purposes of determining SOQ costs, it is still very difficult to determine the extent to which SOQ funding provides support for technology. Appendix A of this report provides an assessment of where these expenditures appear most likely to be reported on the ASR, and whether or not these cost categories are included in State SOQ cost calculations.

The Annual School Report for the 2000-01 school year includes new expenditure codes specifically for technology. This will allow school divisions to report their technology expenditures separately from all other expenditures. This will also give the State the ability to discern which technology expenditures it wishes to recognize in its per pupil funding calculations. To recognize technology costs under the new format, however, the State will have to revise its calculations of prevailing

costs. If the State does not make any changes to the Annual School Report expenditure components that it includes in its calculation of prevailing costs, technology costs will no longer be picked up in the existing SOQ prevailing cost calculations, since they will be reported under new expenditure categories.

***Data Could Be Collected on Education Expenditures Made Outside of School Board Budgets.*** During this review, JLARC staff obtained data from local governments on expenditures made for education outside of the school board budget. These data were used in estimating prevailing debt service expenditures, as discussed in Chapter IV of this report. However, there were concerns that there were discrepancies in data reported by school divisions and by the localities for some of the operating cost categories, and there was also a concern as to whether all of the operating expenditures reported were fully paid from local funds. Therefore, these operating expenditures were not included in study cost estimates. However, in the longer term, a process should be established whereby the State can address any reporting problems that may exist and obtain improved data for these expenditures for potential use in estimating education costs.

***In General, the Directions for the Annual School Report (ASR) Need to Be Improved, and More Frequent Training Is Needed.*** The instructions for the ASR need to be improved, with an emphasis on providing more complete definitions of existing terms, more examples of the distinctions between terms, and a consideration of whether existing terms reflect current school division practices. For example, several school divisions reported to JLARC staff that the absence on the ASR of a category for middle school activities hinders accurate data reporting and increases their workload, for these activities must be pro-rated into the elementary or secondary school levels. Presently, 88 percent of Virginia school divisions have middle schools.

Several school divisions reported that additional training on how to use the ASR would be appreciated. A consideration of the range and frequency of difficulties with completing the ASR, as reported by school divisions to JLARC staff, indicates that training would be desirable. DOE last conducted training in this area in 1999 and 2000. The Superintendent's Memo announcing the 1999 training sessions stated, "Training on the Annual School Report was last provided to school divisions in 1988." DOE has indicated that it has a goal of providing training in the spring of 2002, and this should be conducted.

***Recommendation (10).*** The Department of Education should make additional improvements to its instructions to the Annual School Report, in order to better ensure the consistency of data submitted and used in estimating costs. In particular, DOE should ensure that technology expenditures are reported consistently, and address the particular concerns identified in this report.

***Recommendation (11).*** The General Assembly may wish to request that the State Board of Education and the Auditor of Public Accounts work together to examine the issue of expenditures that are made by local government that are funded from parts of the locality budget other than

education, yet have the same purpose as expenditures commonly reported on the Annual School Report. The Board should consider designating a technical task force consisting of DOE staff, local school division staff, local government staff, and others as needed, to consider how such expenditures can be routinely and accurately obtained. The technical task force should consider provisions for the inclusion of these expenditures and associated FTE positions in computing statewide prevailing costs. A mechanism also needs to be developed to reduce the State share of funds as appropriate for particular localities receiving State non-education funds in support of these purposes.

**The Department of Education's SOQ Cost Model  
Needs to Be Better Documented, Updated and Executed Annually,  
and More Readily Accessible Outside of DOE**

DOE is responsible for calculating the costs associated with supporting the SOQ. DOE currently calculates most of the SOQ cost components using an Oracle-based cost model, which it began using in the late 1980s following the JLARC SOQ I and SOQ II reports. In FY 2000, DOE upgraded the model from a DOS-based Oracle environment to a Windows-based environment.

Although the Windows-based model is easier to navigate, and model-generated reports are more accessible, there are ways in which the SOQ cost model and its use could be improved. These include improved documentation, the need for annual updates of the data and execution of the model, and increased accessibility of the model outside of DOE.

Another concern, the issue of how the State uses the model, has an impact on SOQ costs. After SOQ costs are calculated for the biennium, the only modifications to cost components made by DOE within the biennium, unless explicitly directed by the General Assembly, are the ADM levels against which the SOQ per-pupil amounts are applied. The data to update the various model components, such as the calculated instructional positions, the most recent actual average teacher salaries, and prevailing support costs, are available through DOE's data collection instruments, including the ASR. The accuracy of SOQ costs could be improved if the State directed DOE to update the various cost components in the model each year.

***Recommendation (12).*** DOE should improve the documentation and accessibility of the Oracle-based SOQ cost model. The General Assembly may wish to require that DOE fully update and execute the SOQ cost model on an annual basis.



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### **III. School Division Operating Practices and Expenditures Beyond SOQ Requirements and Costs**

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This study resulted in large part from local concerns that substantial local dollars are currently being provided by many localities that have determined that their schools need to go beyond the SOQ. Questions have been raised about the adequacy of the State's role in the education funding process. Chapter II of this report showed ways in which some of the higher local expenditures may have been necessitated because some State standards with a relationship to funding have been infrequently updated, and because the SOQ costs that are calculated are not as comprehensive and as current as they should be.

The analysis conducted for this chapter examined school division operating expenditures which go beyond the SOQ. The focus of the analysis was on total expenditures, instructional positions, and instructional salaries.

In recent years, State non-SOQ expenditures have grown, partly in response to local complaints about the level of State support. While State non-SOQ funding has grown in recent years, in aggregate, school divisions still receive more than three dollars of local funds for non-SOQ purposes for every one non-SOQ dollar received from the State. The extent of local non-SOQ contributions varies considerably, ranging from zero (as was seen in Chapter II, a few localities may not have expended the required local SOQ match amount in FY 2000) to contributions that far exceed the size of the locally-required expenditure for the SOQ itself.

One of the leading ways in which school divisions typically offer programs that go beyond the SOQ is in the area of instructional staffing. Most school divisions in 1999-2000 did not have any classes with as many children in them as permitted by State maximum class size standards. The typical actual division-wide pupil-teacher ratios were lower than State standards. Localities typically offered elementary resource teachers, and more assistant principals, guidance counselors, and librarians than recognized by the State SOQ and the accompanying position calculations. One area of staffing that was counter to the general trend was special education teachers, where the State's SOQ cost model calculates more FTEs than localities typically provide. On the other hand, localities offered about twice as many special education teacher aides as provided by the SOQ cost model. Special education may be an area in which recruitment difficulties have led to hiring fewer teachers, and hiring more aides, than may be desirable.

For instructional staff salary levels, however, the picture is mixed. For example, the majority of school divisions offer teacher salaries that are less than the salary calculated by the State's measure of prevailing school division costs. (That is, when the State's prevailing cost is kept current, or is calculated retrospectively for the fiscal year that is of interest). Therefore, the SOQ minimum or floor salary level has been high enough to support the salary costs that are prevailing in most school divisions.

However, a number of the largest school divisions offer salaries that are above the State's prevailing salary level. As a result, the majority of teachers teach, and the majority of students are taught, in school divisions that offer salaries higher than the prevailing division salary. The State does provide a cost of competing adjustment to localities in Northern Virginia. This adjustment recognizes somewhat higher salary levels than are recognized by the prevailing salary across the school divisions. Nonetheless, there are a number of divisions in Northern Virginia and other parts of the State for which salary levels are a factor in the size of their non-SOQ costs.

### **STATE AND LOCAL FUNDING OF SCHOOL DIVISIONS FOR NON-SOQ PURPOSES**

In addition to the required SOQ funding amounts, the State and local governments (and the federal government) provide funding for elementary and secondary education that is not required by the SOQ. In FY 2000, for example, local governments provided over \$1.8 billion in non-SOQ funding for operating cost purposes, which accounted for about 24 percent of total operating cost expenditures. The State provided an additional \$454 million for various non-SOQ categorical and incentive-based programs, and the federal government provided Virginia schools \$476 million to support FY 2000 operations.

Although the State's non-SOQ funding makes up a fairly small percentage of total public education funding, this fraction has been growing in recent years. In FY 1998, State non-SOQ funding comprised 3 percent of total education funding, whereas in FY 2000 State non-SOQ funding had risen to about six percent of total funding.

Nonetheless, most school divisions received greater support for purposes beyond the SOQ from local sources. Not surprisingly, then, the extent to which a school division can go beyond SOQ requirements and costs tends to depend upon the ability and willingness of the local government to pay.

#### **State Non-SOQ Funding for Local School Divisions**

The two main sources of State non-SOQ funds are categorical programs and incentive-based programs. There is also a small amount of non-SOQ funding provided outside of these two programs.

***State Non-SOQ Categorical Programs.*** Categorical programs focus on particular needs of special student populations or fulfill particular State obligations. These programs are typically required by State or federal law or regulation. Examples of categorical programs include special education programs targeted toward children who cannot enroll in public schools for medical or behavioral reasons, or vocational and adult education programs. In FY 2000, the State provided \$93.7 million in categorical funds.

**State Non-SOQ Incentive-Based Programs.** Incentive-based programs are not required by law, but are intended to target resources at specific educational needs. In order to receive State funds for incentive-based programs, school divisions must certify that they will offer the specific program, meet the requirements established for the program, and provide a local match of funds for the program. In FY 2000, the State provided \$473.8 million (including debt service that was paid from the Literary Fund for VPSA technology grants and school construction) for incentive-based programs.

The State's recent growth in non-SOQ funding is largely due to increases in the incentive-based programs. Table 10 shows some of the recent additions to incentive-based programs that were made within the past decade, the biennium in which they were initiated, and the amount provided to local school divisions in FY 2001. Only those additions that resulted in \$10 million or more in State funding in FY 2001 are listed separately in Table 10.

<p style="text-align: center;"><b>Table 10</b></p> <p style="text-align: center;"><b>Recent Additions to the State's Incentive-Based Accounts that Resulted in \$10 million or More in State Funding in FY 2001</b></p>		
<b>Account</b>	<b>Biennium Initiated</b>	<b>FY 2000 Funding Provided</b>
Dropout Funding	1988-90 Biennium	\$11.0 million
At-Risk Add-on Funding	1992-94 Biennium	\$43.7 million
At-Risk Four-Year-Olds Programs	1994-96 Biennium	\$18.4 million
Primary Class Size Reduction*	1994-96 Biennium	\$69.0 million
Education Technology Grants**	1994-96 Biennium	\$56.9 million
Early Reading Intervention	1996-98 Biennium	\$11.6 million
Standards of Learning Teacher Training	1998-00 Biennium	\$16.9 million
Standards of Learning Remediation	1998-00 Biennium	\$15.4 million
School Construction Grants Program	1998-00 Biennium	\$55.0 million
Designation of Lottery to Public Education (Portion Provided to Localities)	1998-00 Biennium	\$122.1 million
Lottery Hold Harmless	1998-00 Biennium	\$14.8 million
Additional Elementary Teachers	1998-00 Biennium	\$28.8 million
Other		\$34.7 million
<b>TOTAL</b>		<b>\$498.3 million</b>
<p>*In the FY 2000-2002 Biennium, the kindergarten standards for the Primary Class Size Reduction Program were incorporated into the SOQ ratios.</p> <p>**Debt service for the Education Technology Grants was paid by the Literary Fund.</p> <p>Source: JLARC staff analysis of documents provided by DOE.</p>		

**Additional Teachers Funded by the State Through Non-SOQ Accounts.** Through the various categorical and incentive-based accounts, the State provides funding for teachers in addition to those that are funded through the pupil-teacher ratios required by the SOQ. As indicated by Table 11, school divisions reported that in FY 2000 an additional 2,381 teachers were hired (or additional teaching hours were funded) through State-supported initiatives.

In addition to the State-supported initiatives listed on Table 11, the State also provides funding in other accounts that could be used to fund additional teachers. Other accounts that could be used to fund teachers include the English as a Second Language account the At-risk Remediation account, and the SOQ Summer Remedial Education account.

Based on each school division's average salary level and FY 2000 benefit rate, JLARC staff estimated that, through State funds alone, the State provided funding for roughly 2,800 new teachers or additional teaching hours for the initiatives listed on Table 11. (Schedule E specified that teachers funded using either State or local funds should be included. With the exception of the Additional Teachers Initiative and the Lottery Hold Harmless account, all of the initiatives listed on Table 11 require a local match.) This discrepancy between the estimate and the number of additional teachers actually reported may be a result of school divisions hiring fewer teachers at higher salaries (or offsetting the cost of existing teachers with higher salaries), or school divisions using funds from the initiatives for items

<p><b>Table 11</b></p> <p><b>Additional New Teachers Hired or Number of Additional Teaching Hours Provided as a Result of State-Supported Initiatives, FY 2000</b></p>	
<b>Source of Funds</b>	<b>Number of New Teachers Hired or Additional Teaching Hours Provided in FY 2000*</b>
K-3 Reduced Class Size	1,021
Additional Teachers Initiative	886
Standards of Learning Remediation	265
Early Reading Intervention	59
Lottery/Lottery Hold Harmless	71
Other State Initiatives	79
<b>Total Number of Additional Teachers</b>	<b>2,381</b>
<p>*Schedule E requested that divisions "report the number of additional teachers ... employed ... for the 1999-00 school -year using state or local funding from each state-supported initiative listed. For purposes of [Schedule E], additional teachers <u>include</u> the number of new teachers hired <u>and/or</u> the number of additional teaching hours funded with existing teachers."</p> <p>Source: JLARC staff analysis of Schedule E of the 1999-2000 Annual School Report.</p>	

other than additional teachers (which the Appropriation Act allows them to do in some cases).

### ***Comparison of the Size of State and Local Non-SOQ Expenditures.***

Despite the increases in State non-SOQ funding, funding for non-SOQ programs primarily comes from local sources. The focus of the State's funding effort is on paying SOQ costs. The State-appropriated sales tax plus the State SOQ share payment accounted for about 63 percent of State-recognized SOQ costs in FY 2000. However, State non-SOQ payments were less than one-third of the size of the expenditures that school divisions made from local funds for non-SOQ operational purposes alone. Whereas localities provided slightly more than one discretionary dollar for operational costs above the SOQ for every one SOQ dollar, the State on average in FY 2000 provided less than one non-SOQ dollar for every five SOQ dollars.

### **Comparison of the Magnitude of Non-SOQ Funding Support Across Localities**

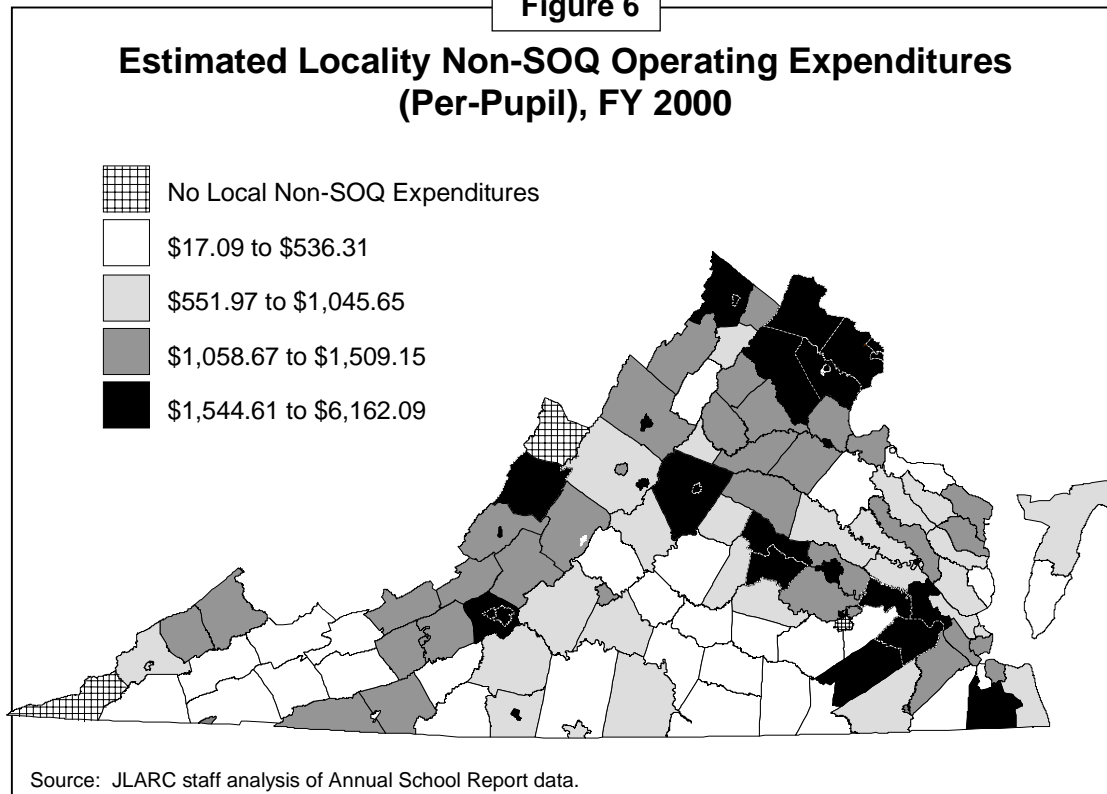
This section focuses on the extent to which localities exceed their required SOQ cost contributions, specifically focusing on locality non-SOQ operating expenditures. For those localities meeting their required local match and choosing to make expenditures beyond that minimum level, this section looks at the variation among localities in the size of the local non-SOQ operating expenditures compared to the size of their required local SOQ match.

JLARC staff analyzed the operational expenditures of 131 school divisions using data from Table 15 of the Annual School Report for 1999-2000. For reasons discussed previously (page 58), the estimates of local operating expenditures which are contained in this table are conservative, and so local effort levels may be higher than indicated.

Of the 131 school divisions analyzed, three localities may not have provided sufficient local non-SOQ operational funds in FY 2000 to meet their division's required local share (Highland County, Lee County, and Petersburg City). Among the other 128 localities, there is a substantial degree of variation around the \$1,239 per-pupil statewide average amount that was paid from local non-SOQ operational funds in FY 2000. For those localities that do provide local funding in excess of the SOQ-required minimum level, the amount of local non-SOQ funding varies from about \$17 to \$6,162 on a per-pupil basis. Figure 6 shows local non-SOQ operating expenditures on a per-pupil basis for FY 2000.

Table 12 (page 71) presents localities with the lowest and highest estimated local non-SOQ operational expenditures relative to the size of their required match for the SOQ. This measure provides a better indication of the level of local effort or aspiration to go beyond the SOQ than local expenditures per pupil, because it takes into account ability to pay. A locality with greater ability to pay as measured by the State (using a measure called the composite index) is responsible for a higher share of its SOQ cost; a locality with lesser measured local ability to pay is responsible for a lesser share. Therefore, a measure relating the size of estimated

Figure 6



local non-SOQ costs to local SOQ costs takes the State's measure of local ability to pay into account.

There is a very large variation among localities in the extent to which they exceeded their required local match in the 1999-2000 school year. This variation ranges from no local non-SOQ operating expenditures to an expenditure that represents 241 percent of the locality's required local match. As indicated in Table 13 (page 72), the majority of cities spent more local non-SOQ dollars than local SOQ dollars. The majority of counties had local non-SOQ expenditures that were 50 percent or more of the size of their required local match for the SOQ.

#### **FACTORS ASSOCIATED WITH DIFFERENCES IN THE SIZE OF TOTAL OPERATING COSTS PER PUPIL (REGARDLESS OF SOURCE)**

The total amount of local school division expenditures is very highly associated with the total number of pupils in the school division. However, finding that localities with more pupils have higher expenditures does not provide information on what other factors really matter. Therefore, it is appropriate to focus instead on per-pupil expenditures when examining differences between localities. By examining expenditures on a per-pupil basis, it becomes possible to explain those differences

<b>Table 12</b> <b>Localities with the Lowest and Highest Estimated Local Non-SOQ Operating Expenditures as a Percent of Required Local SOQ Expenditures</b>					
School Division	Required Local SOQ Operating Expenditures (Local Match)	Estimated Local Non-SOQ Operating Expenditures in Total	Estimated Local Non-SOQ Operating Expenditures Per-Pupil	Estimated Local Non-SOQ as a Percent of Required Local SOQ Expenditures (Local Effort)	Uncapped 2000 – 2002 Composite Index*
<b>Lowest Local Effort</b>					
Highland County	\$919,624	\$0	\$0	0%	.5502
Lee County	\$2,289,840	\$0	\$0	0%	.1886
Petersburg City	\$4,738,114	\$0	\$0	0%	.2240
Colonial Beach Town	\$696,404	\$10,154	\$17.09	1.46%	.3020
Pittsylvania County	\$9,676,614	\$1,412,794	\$153.70	14.60%	.2805
Page County	\$4,455,044	\$836,297	\$232.18	18.77%	.3088
Greensville-Emporia	\$2,829,529	\$547,670	\$207.53	19.36%	.2770
Mecklenburg County	\$6,444,999	\$1,259,729	\$254.76	19.50%	.3346
Bland County	\$1,106,439	\$223,687	\$246.89	20.22%	.2748
Westmoreland County	\$2,995,309	\$609,411	\$297.71	20.35%	.3909
Buckingham County	\$2,553,940	\$549,798	\$248.22	21.53%	.2694
Portsmouth City	\$14,833,363	\$3,231,358	\$187.53	21.78%	.2225
Galax City	\$1,704,524	\$379,303	\$292.00	22.25%	.3338
Dinwiddie County	\$4,743,526	\$1,061,149	\$250.27	22.37%	.2940
<b>Highest Local Effort</b>					
Frederick County	\$14,133,208	\$17,886,667	\$1,705.77	126.56%	.3841
Richmond City	\$41,244,497	\$53,312,266	\$2,016.27	129.26%	.4536
Waynesboro City	\$3,779,503	\$5,204,797	\$1,776.38	137.71%	.3730
Fairfax City/County	\$408,012,052	\$568,297,899	\$3,708.52	139.28%	.7208
Winchester City	\$6,425,363	\$9,592,778	\$2,845.68	149.30%	.5643
Colonial Heights City	\$4,597,623	\$7,213,539	\$2,608.87	156.90%	.4940
Alexandria City	\$34,614,840	\$56,102,907	\$5,107.23	162.08%	1.0894
Martinsville City	\$3,050,255	\$5,128,941	\$1,944.25	168.15%	.3210
Charles City County	\$1,556,602	\$2,707,344	\$2,828.99	173.93%	.4048
Sussex County	\$2,011,233	\$3,543,407	\$2,431.99	176.18%	.3229
Falls Church City	\$5,327,524	\$9,550,251	\$5,647.69	179.26%	.9925
Arlington County	\$58,156,912	\$111,201,096	\$6,162.09	191.21%	1.1248
Covington City	\$1,231,937	\$2,378,550	\$2,568.63	193.07%	.3358
Charlottesville City	\$8,230,682	\$19,860,145	\$4,558.22	241.29%	.5509
* For this analysis, composite index values are not capped at .8000 (the ceiling used for funding distribution purposes). Source: JLARC staff analysis of Annual School Report data.					

among locality expenditures that result from factors other than differing numbers of pupils.

JLARC staff's review, using correlation and regression analysis, indicates that per-pupil operating expenditures by school divisions are highly associated with several factors. As shown in Table 14 (page 73), key factors include: teacher salary

<p style="text-align: center;"><b>Table 13</b></p> <p style="text-align: center;"><b>Local Aspiration Funding for Public Education, FY 2000 Operating Costs *</b></p>					
<p style="text-align: center;"><b>Local Aspiration Funding = Percent Increase in Fund Availability Based on</b></p> <p style="text-align: center;"><b>( Local Non-SOQ Funds / Local SOQ Funds )</b></p>					
Type of School Division	Number (and % ) of Divisions With Local Aspiration of ...				Total
	25 Percent or Less	Greater than 25 Percent to Less than 50 Percent	50 Percent to Less than 100 Percent	100 Percent or More	
County	11 (11.46%)	30 (31.25%)	41 (42.71%)	14 (14.58%)	96 (100%)
Cities	3 (9.09%)	2 (6.06%)	7 (21.21%)	21 (63.64%)	33 (100%)
Towns	1 (50.0%)	0 ( 0%)	0 (0%)	1 (50.0%)	2 (100%)
Total	15 ** (11.45%)	32 (24.43%)	48 (36.64%)	36 (27.48%)	131 (100%)
<p>* Aspiration is used somewhat broadly here to address operating expenditures beyond the costs of the Standards of Quality. In some divisions, a portion of the expenditures may actually be due to unique cost factors or inefficiencies, rather than locality aspiration to provide a higher level of service or pay better salaries. The data in the table do not, however, reflect school division expenditures from local fund sources for facility or debt service purposes.</p> <p>** The 15 divisions were: Bland, Buckingham, Dinwiddie, Greensville, Highland, Lee, Mecklenburg, Page, Pittsylvania, Scott, Westmoreland, the City of Galax, the City of Petersburg, the City of Portsmouth, and the town of Colonial Beach.</p> <p>Source: JLARC staff analysis of FY 2000 operating expenditure and revenue data for the Annual School Report.</p>					

levels, adult educational attainment, the strength of the locality tax base, the proportion of students from lower-income families, and the total number of teachers per 1,000 pupils in fall membership.

### Teacher Salary Levels

Using data from the Virginia Department of Education's 1999-2000 Annual School Report, an average classroom teacher salary was calculated for each school division. This calculation did not include guidance counselors or librarians. The regression analysis indicates that classroom teacher salary levels are very



<p><b>Table 14</b></p> <p><b>Factors Associated with Differences Between School Divisions in Per-Pupil Operating Expenditures</b></p>		
<b>Factor</b>	<b>Association</b> (Standardized Estimates)	<b>Association Suggests</b>
<b>Positively Associated Factors</b>		
Teacher Salary Levels	Very Strong Positive +.4377	Localities that Pay Higher Salaries to Teachers Spend More on Education
Percent of Pupils Receiving Free and Reduced Price Meals	Strong Positive +.3532	Educating Pupils From Poverty Backgrounds May Require Greater Costs. Certain State and Federal Payments Are Based Upon the Percent of Pupils Eligible for Free Lunches.
Locality Wealth: Revenue Capacity Per Pupil	Strong Positive +.3395	Localities with a Higher Ability to Collect Revenue Spend More on Education
Adult Educational Attainment: Percent of Adults 25 years or older with Bachelor's Degree or More (1990 Census)	Positive +.2777	Localities With More Highly Educated Adults are Willing to Spend More on the Education of Children
Total Number of Teachers per 1,000 Pupils	Positive +.2676	Localities with More Teachers Spend More on Education
Expenditures on Purchased or Contracted Services.	Weak Positive +.1915	Localities that Purchase Services from Outside Suppliers Spend More on Education.
Total Number of Aides per 1,000 Pupils	Weak Positive +.1524	Localities with More Aides Spend More on Education.
<b>Negatively Associated Factors</b>		
Wealth Distribution: Percent of a Locality's Residents that have Incomes Over \$100,000	Weak Negative -.1568	In a Model Controlling for Factors Such As Locality Revenue Capacity and Adult Educational Attainment, Localities with a High Proportion of High Incomes Spend Less Per Pupil on Education.
Average Number of Pupils Per School	Very Weak Negative -.0731	Localities with More Pupils per School Spend Less Per Pupil on Education.
Source: JLARC staff analysis of data from the Virginia Department of Education, the United States Census Bureau, the Commission on Local Government, the Virginia Department of Taxation, and the JLARC Survey of Virginia School Divisions.		

strongly associated with per-pupil operational expenditures, indicating that localities which offer higher teacher salary levels also have higher levels of per-pupil operational expenditures.

However, since teacher salary levels are a very large component of operational expenditures, this strong positive association is expected. Therefore, teacher

salary levels were primarily included in this regression analysis as a control. By accounting for, or controlling, teacher salary levels, they are statistically held at a constant amount, which means that any additional change in the level of operational expenditure results from the effect of other factors.

### **Percent of Pupils Receiving Free and Reduced Price Meals**

Using data from the Virginia Department of Education for the 1999-2000 school year, the percent of a locality's pupils that receive free or reduced price meals was included in the regression analysis. This factor is an indicator of family poverty, and its strong positive relationship indicates that as the percent of students receiving free or reduced price meals increases, total operational expenditures increase. Providing an adequate education to pupils from poverty background may be more expensive than for the typical student. Localities often receive State incentive payments based upon the percent of pupils eligible for reduced price meals, and school divisions that choose to participate in the National School Lunch Program receive cash reimbursements from the U.S. Department of Agriculture for every free or reduced-price lunch that they serve to eligible pupils.

### **Locality Wealth: Revenue Capacity Per Pupil**

Revenue capacity data provided by the Commission on Local Government for each locality in 1998-99 was standardized on a per-pupil basis. Revenue capacity is an indicator of local wealth, and it measures the amount of revenue that could be collected from taxes and other fees available to a locality if statewide average rates of taxation were applied. This factor also has a strong positive relationship with per-pupil operational expenditures, indicating that as a locality's capacity to collect revenue increases, local operational expenditures for education increase as well.

### **Adult Educational Attainment**

Using 1990 U.S. census data, the most recent available, the educational attainment of each locality's adult population over the age of 25 was included in the regression analysis. The regression analysis indicates a strong positive relationship between a locality's per-pupil level of operational expenditures and the percentage of college graduates. It is likely that adults who have placed a high value upon their own education will in turn support higher levels of educational expenditures in their locality.

### **Total Number of Teachers, and Aides, Per 1,000 Pupils**

Using data from the December 2000 JLARC Survey of Virginia School Divisions, the total number of classroom teachers per 1,000 pupils, excluding guidance counselors and librarians, was calculated for each school division. The same calculation was conducted for classroom aides. Since teacher salary levels are already controlled, or held constant, the regression analysis indicates that the number of teachers and aides employed by a locality has an independent effect upon the level of op-

erational expenditures. Therefore, as the number of teachers and aides per 1,000 pupils increases, the level of per-pupil operational expenditures increases regardless of the salary level paid to the teachers.

However, as with teacher salary levels, the number of teachers and aides per 1,000 pupils was primarily included in this regression analysis as a control, and the factors that are associated specifically with the number of teachers per 1,000 pupils will be discussed later in this chapter.

### **Expenditures on Purchased Instructional Services**

Using data from the Virginia Department of Education's 1999-2000 Annual School Report, the total expenditure on purchased services that relate directly to classroom instruction was calculated for each school division. This calculation also pro-rates to each division expenditures on purchased services made by each regional program in which the division participates.

School divisions often must purchase services from outside suppliers for several reasons:

- The services may be highly specialized, such as information technology, for which school division employees may not have the necessary expertise.
- Although some services may be needed on an on-going basis, such as nursing or therapist services, market forces may hinder a school division's ability to recruit employees with these skills.
- The services may only be necessary for a short period of time, and therefore do not require the employment of full-time personnel.
- Alternatively, some service needs may be unanticipated but must be provided, such as services for children receiving special education or who are classified as medically fragile.

Purchased services are usually more expensive per unit than services that can be provided within the school division. The regression analysis indicates that the level of expenditure on purchased services is positively associated with per-pupil operational expenditures.

### **Percent of a Locality's Residents That Have Incomes Over \$100,000**

Given the inclusion of the other factors in the model, including the revenue capacity variable that relates to the strength of local tax bases, it appears that local non-SOQ expenditures would tend to get overestimated without taking into account the extent of the locality's high-income population. Using data from the Virginia Department of Taxation regarding 1998 State income tax returns, the percent of filers with incomes over \$100,000 was calculated for each locality. This calculation provides an indication of how the income is distributed within a locality – that

is, whether there is a high proportion of residents with high income levels. This differs from revenue capacity, which measures how taxable wealth is distributed among localities.

Although there is a strong positive association between a locality's revenue capacity and operational expenditures, there is a negative association between the percent of wealthy residents and the level of operational expenditures. In other words, the greater the proportion of wealthy residents, the lower the level of operational expenditures, suggesting that an upwardly skewed income distribution in a locality appears to have a small negative impact on operating expenditures, relative to what might one expect after accounting for locality revenue capacity and educational attainment.

### **Average Number of Pupils Per School**

The final factor that appears to be highly associated with total per-pupil operating expenditures is the average number of pupils per school in each division. Using data from the Virginia Department of Education's September 30, 1999 *Fall Membership Report*, as well as data on the number of schools in each division, the average number of pupils per school was calculated for each locality. The regression analysis indicates that there is a negative association between the number of pupils per school and the level of operational expenditures per pupil. This result may indicate that economies of scale are being generated, for as the number of students per school increases the level of operational expenditures per pupil decreases.

## **DIFFERENCES IN THE SIZE OF SCHOOL DIVISION OPERATING EXPENDITURES PER-PUPIL FROM LOCAL NON-SOQ FUNDS**

The preceding section addressed factors associated with the total size of school division operating expenditures (regardless of the source of revenue, or whether the expenditures were for SOQ or non-SOQ purposes). This section focuses on the size of school division expenditures of local non-SOQ funds.

For the 128 localities that make local non-SOQ operational expenditures, many of the factors associated with their total per-pupil operational expenditures continue to be associated with the local non-SOQ operating expenditures sub-component. As presented in Table 15, regression analysis indicates that seven of the nine factors continue to be highly associated with local non-SOQ expenditures per-pupil, yet there is some change in their relative strengths of association.

Two of the nine factors that were highly associated with total operational expenditures – the percent of a locality's pupils that receive free or reduced price meals, and the average number of pupils per school – are not associated with local non-SOQ operational expenditures. By contrast, two other factors – revenue capacity per pupil, and the percent of adults with a Bachelor's degree or more – are more highly associated with local non-SOQ expenditures than they were with total operational expenditures. The remaining five factors are less strongly associated with

Table 15		
Factors Associated With Differences Between School Divisions in Per-Pupil Local Non-SOQ Operating Expenditures		
Factor	Association (Standardized Estimates)	Change From Total Expenditures Per-Pupil
<b>Positively Associated Factors</b>		
Teacher Salary Levels	Very Strong Positive +.4633	Increase from +.4377
Locality Wealth: Revenue Capacity Per Pupil	Very Strong Positive +.3948	Increase from +.3395
Adult Educational Attainment: Percent of Adults 25 years or older with Bachelor's Degree or More (1990 Census)	Strong Positive +.3083	Increase from +.2777
Expenditures on Purchased or Contracted Services.	Weak Positive +.1638	Decrease from +.1915
Total Number of Aides per 1,000 Pupils	Weak Positive +.1297	Decrease from +.1524
Total Number of Teachers per 1,000 Pupils	Weak Positive +.1261	Decrease from +.2676
Percent of Pupils Receiving Free and Reduced Price Meals	Very Weak Positive +.0680	Decrease from +.3532
Average Number of Pupils Per School	Very Weak Positive +.0299	Increase from -.0731
<b>Negatively Associated Factor</b>		
Percent of a Locality's Residents that have Incomes Over \$100,000	Weak Negative -.1705	Decrease from -.1568
Source: JLARC staff analysis of 1999-2000 Annual School Report data.		

local non-SOQ expenditures than they were with total operational expenditures, but they remain highly associated.

These results indicate that local non-SOQ expenditures increase as a locality's ability to raise revenue increases, and as the percent of its population that is highly educated increases. Thus, school divisions serving localities with a weak tax base and relatively low levels of education among adults in the community are more likely to be limited to working with budgets that are primarily built with State and federal aid amounts plus locally-required SOQ funds.

## INSTRUCTIONAL STAFFING LEVELS

The prevailing practice of school divisions is to provide more instructional staffing than is recognized by the SOQ and in State funding levels. Instructional staffing includes principals, assistant principals, elementary and secondary teachers, guidance counselors, and librarians. In general statewide, school divisions offer substantially more instructional staff than are recognized by the SOQ cost model for

all of these categories except librarians. There are a variety of ways in which divisions exceed the standards in instructional staffing, and these ways are discussed in this section.

### **School Divisions Typically Employ More Instructional Staff Than Are Calculated by the State Model Which Applies the SOQ Ratios**

In aggregate, all school divisions employ more instructional staffing positions than are recognized as SOQ positions. From the perspective of local compliance with SOQ requirements, this is a positive finding. If school divisions, for example, provided fewer staff than are required by the standards, then those divisions would not be in compliance with the law.

However, many localities are concerned with the magnitude of the positions which are considered needed locally, and which are not recognized by the State in SOQ cost calculations. Table 16, for example, shows how the FTE instructional positions offered by school divisions for the 1999-2000 year compared to the FTEs computed by the SOQ model, based on State instructional staffing standards. As shown in the table, on a statewide basis, school division positions substantially exceeded the model calculations for all types of instructional positions.

One of the facts from the table that is most striking is the size of the gap between what school divisions employ as the number of assistant principals, and what the State standards require and fund. All but eight school divisions had more

<b>Table 16</b> <b>Comparison of State and Locally-Funded Instructional FTEs with Position FTEs Recognized by State Standards</b>			
Type of Instructional Position	Number of State and Locally Funded Positions	Number of Positions Based on SOQ Standards	Percentage Actual Positions Exceed SOQ Positions
Principals	1,880	1,692	+ 11.1 %
Assistant Principals	1,912	795	+ 140.5 %
Elementary Teachers	46,433	38,256	+ 21.4 %
Secondary Teachers	31,062	26,079	+ 19.1 %
Guidance Counselors	3,311	2,656	+ 24.7 %
Librarians	1,986	1,875	+ 5.9 %
Source: JLARC staff analysis of the JLARC survey of school divisions, FTE data reported for the Annual School Report to DOE, and JLARC staff execution of DOE's SOQ model using 1999-2000 pupil counts.			

assistant principals than are recognized by the model; consistent with the model outcome, the remaining eight divisions had no assistant principal positions. It appears that this is an area in which the State Board of Education should review the adequacy of the State standards.

The table also shows that school divisions employ more principals than are recognized by the standards. This difference appears to be largely due to the fact that the Standards of Accreditation do not require a full-time principal for elementary schools with enrollments of less than 300 pupils. The State Board of Education should consider whether the threshold for a full-time principal should be reduced, or whether some criteria should be developed which would enable an appropriate subset of the schools with enrollments of less than 300 to qualify for a full-time principal.

***Recommendation (13).*** The Board of Education should examine the Standard of Accreditation provisions for assistant principals, and the use of half-time principals at elementary schools with enrollments below 300 pupils.

### **Classroom Teacher Staffing Levels in the School Divisions Generally Exceed the SOQ**

In terms of total teachers, all school divisions had more teachers than calculated by the model, although Bland County was close to the required number (only 0.37 FTEs above). There are several factors which appear to account for why school divisions offer more teaching positions than are required by the standards. These factors include:

- school divisions typically go beyond the SOQ by using lower maximum class sizes at the elementary level than the standards require;
- for the elementary school grades, school divisions typically have lower pupil-teacher ratios at the division-wide level than are required by the standards;
- school divisions typically provide elementary resource instruction (for example, art, music, physical education) through the use of specialists, rather than regular classroom teachers;
- school divisions typically have a lesser ratio than 25 pupils per teacher in secondary schools, perhaps due to the requirement for a secondary school teacher planning period.

One countervailing trend which was noted during the review, however, is that school divisions reported fewer special education teachers than are calculated by the SOQ model, although they provide many more special education aide positions than are required.

***Maximum Class Sizes Reported by the School Divisions for 1999-2000.*** Table 17 shows how the largest class sizes reported by school divisions on the JLARC survey compared with the maximum class sizes allowed under the SOQ. As can be seen in the table, the great majority of school divisions report that the largest class size that they had in 1999-2000 was well under the maximum class sizes permitted by the SOQ. For example, for grade one, the maximum class size standard is 30 to one. The largest grade one classroom reported by any division was 29. Ninety-five percent of school divisions reported that they had no grade one classrooms larger than 26, and 90 percent reported no grade one classrooms larger than 25 to one. Half of the school divisions reported that they had no grade one classrooms larger than 22 pupils.

### Table 17

## Largest Class Sizes in Grades K to 7 Reported by School Divisions, 1999-2000

(Example: In grade one, 75 percent of the divisions had a maximum class size of 23 students or less)

SOQ Largest Class Size Stan- dard1999 -00	30 with an aide, else 25	30	30	30	35	35	35	None
Percent of Divi- sions	Kinder- garten	Grade One	Grade Two	Grade Three	Grade Four	Grade Five	Grade Six	Grade Seven
100	30	29	30	31	33	35	37	41
95	26	26	26	27	30	30	33	33
90	25	25	25	26	29	28	31	30
75	23	23	24	25	26	27	29	29
50	21	22	22	22	24	25	26	26
25	19	20	21	21	23	23	25	25
10	18	19	19	19	22	22	22	21
Lowest Maximum	16	15	13	12	13	17	18	16
Linear Weighted Average*	21.35	21.66	22.15	22.44	24.48	24.72	26.59	26.50
N=	130	130	130	130	130	130	127	127

\* The linear weighted average is an estimate of the central tendency of data that includes all school divisions in the calculation of an average, but gives greater weight to the values that are close to the median value.

Source: JLARC staff analysis of school division survey data for the 1999-2000 school year.



As can also be seen in the table, there was a small minority of school divisions which reported some class sizes in excess of the standards. In grade three, Albemarle County reported having one classroom with 31 students; however, the second largest grade three classroom reported by Albemarle was 26 pupils. Highland County reported that its sixth grade classroom had 36 pupils. The City of Norfolk reported that it had four grade six classrooms of 37 pupils, and at least one grade six classroom with 36 pupils.

If the State does move to reduce the maximum class size ratios, one of the localities that would be impacted is Fairfax County. As can be seen in Table 18, looking at the county's five largest classrooms reported, Fairfax had a number of classrooms that are not far below the State standards. Since JLARC staff requested data for just the five largest classrooms in each locality, the data do not reveal how many more of the county's classrooms are also close to the class size maximum standards of the State, however.

<p><b>Table 18</b></p> <p><b>Largest Classrooms Reported by Fairfax County by Grade, 1999-2000 School Year</b></p>					
Grade	Pupils in Largest Class	Second Largest Class	Third Largest Class	Fourth Largest Class	Fifth Largest Class
Kindergarten	30	29	29	29	29
Grade 1	29	29	29	28	26
Grade 2	29	29	29	29	29
Grade 3	30	30	29	29	29
Grade 4	33	33	32	31	31
Grade 5	35	34	33	32	32
Grade 6	33	32	32	32	32
Grade 7	32	32	32	32	32
Source: JLARC staff analysis of JLARC school division survey data.					

***Division-Wide Pupil-Teacher Ratios at the Elementary Level.*** After the State SOQ model calculates the number of elementary teachers required at a minimum by the maximum class size standards at the grade level, the model then applies division-wide standards. These division-wide pupil-teacher ratios for grades kindergarten to grade 6 range between 24 and 25 to one. Since these standards are division-wide averages, some classes may exceed the standards. For example, if a hypothetical division had only two first grade classrooms, then according to the class-size standard neither classroom could have more than 30 pupils. However, if one of the classrooms did have 30 pupils, then the other classroom could have no more than 18 pupils in order to meet the division-wide standard for first grade of twenty-four to one.

Once the division-wide standard is applied, and the number of required teachers per grade is calculated across the division, this result is compared to the number of teachers required by the class-size standard. For each grade in a school division, the standard that requires the greater number of teachers is used in order to determine how many teachers in total are required for that school division. For both kindergarten and special education classes, the standards allow divisions to use a mixture of teachers and aides. Therefore, each division's required minimum number of instructional positions for kindergarten and special education is a unique combination of teachers and aides.

In all but three divisions, the application of the division-wide standards requires a greater number of regular elementary teachers than were required by the application of the class-size standard alone. In the other three divisions, the division-wide standards require the same number of teachers as are required by the class-size standards.

For each school division, JLARC staff compared the number of basic teachers required by the SOQ at each grade level to the total number of regular classroom teachers reported by each school division on the JLARC survey (Table 19). In order to make comparisons among school divisions, the required number of teachers at each grade was converted to a per 1,000 pupil standard. As a result, the school-size standard of 24 pupils to 1 teacher in grades K-3 converted to a teacher-pupil ratio of 41.67 teachers per 1,000 pupils. In grades 4-6, the division-wide standard of 25 to 1 equated to 40 teachers per 1000 pupils.

Table 19

### Comparison of SOQ Basic Elementary Teacher-Pupil Division-Wide Ratios with Division Practices

	<b>Codified State SOQ Basic Teacher- Pupil Ratio</b>	<b>SOQ Model Generated SOQ Basic Teacher- Pupil Ratio (Average)</b>	<b>Division-Level Mean Ratio with State and Local Positions Only</b>	<b>Division-Level Linear Weighted Average Ratio with State and Local Positions Only *</b>	<b>Division-Level Mean Ratio with Federal Positions Added</b>
Kindergarten	41.67 per 1000	42.42	51.22	51.56	52.93
Grade 1	41.67 per 1000	42.63	53.43	52.89	57.29
Grade 2	41.67 per 1000	41.65	52.44	52.18	55.69
Grade 3	41.67 per 1000	41.44	50.74	50.36	53.09
Grade 4	40 per 1000	40.37	47.78	47.11	48.42
Grade 5	40 per 1000	40.45	47.10	46.59	47.73
Grade 6	40 per 1000	40.25	44.82	44.19	45.03
Grade 7	40 per 1000	40.28	44.74	44.26	45.47
Total K-7	No Standard	41.16	48.81	48.52	50.49

\* See note on this measure provided in Table 17.

Source: JLARC staff analysis of school division survey data.

Of the 132 school divisions surveyed by JLARC staff, 130 reported having a number of elementary teachers and aides that exceeded the State SOQ model calculations. Only King and Queen County and Richmond City reported fewer elementary positions than the required minimum.

At each grade level, school divisions provided on average more teachers per 1,000 pupils than are required by the SOQ. For example, in kindergarten, school divisions provided on average 8.80 more teachers per 1,000 students than would be needed to meet the SOQ division-wide standard.

**Elementary Resource Teachers.** The State Standards of Accreditation, which are part of the SOQ framework, require that elementary school instructional programs include “instruction in art, music, and physical education and health.” The State assumes, however, that this instruction could potentially be provided by regular classroom teachers. Therefore, no teacher positions are explicitly calculated to provide for this instruction. However, almost all school divisions have resource teachers for music and physical education (129 of 132 respondents) and for art (116 of 132 respondents).

Statewide, school divisions provide a total of 5,563.39 elementary resource teacher FTEs (Table 20). School divisions on average provide 8.08 elementary resource teachers per 1,000 pupils, with the majority of these teachers (about six per 1,000 pupils) providing instruction in physical education, music, art, and reading.

<p style="text-align: center;"><b>Table 20</b></p> <p style="text-align: center;"><b>Elementary Resource Teachers (State and Locally Funded Only)</b></p> <p style="text-align: center;"><b>Prevailing Division Practices Per 1,000 Elementary Pupils</b></p>				
	Total Number of Positions Statewide	Number of Divisions Providing FTEs	Actual Practice per 1,000 Elementary Pupils (Average) *	Actual Practice per 1,000 Elementary Pupils (Linear Weighted Average) **
Physical Education	1,646.79	129	2.90	2.86
Music	1,347.57	129	1.88	1.84
Reading	999.34	89	1.82	1.77
Art	871.72	116	1.37	1.36
Foreign Language	200.35	47	0.79	0.69
Technology	160.19	32	1.25	1.15
Other Resource	337.43	47	1.12	1.04
<b>Total Positions</b>	5,563.39	n/a	8.08	7.96
<p>* Among those school divisions that provide FTEs in these subject areas.</p> <p>** See note on this measure provided in Table 17.</p> <p>Source: JLARC staff analysis of school division survey data. Lexington and Rockbridge are treated as separate divisions.</p>				

***Secondary Classroom Teacher FTEs Compared to a 25:1 Ratio.***

School divisions provide on average more than the required minimum number of regular secondary teachers. For each school division, JLARC staff compared the number of teachers required by the SOQ at each grade level to the number of teachers reported by each school division on the JLARC Survey. To determine the required minimum number of secondary teachers, the school-size standards are applied to each school in a division. In grades eight through 12, the SOQ require that one standard be used in determining pupil-teacher ratios: a school-size standard of 25 to one in middle and secondary schools. Additionally, there is a division-wide standard of 24 to one that applies only to English classes in grades six through 12.

Unlike the elementary class-size standards, which are maximum class sizes, the secondary school-size standard is an average, such that individual secondary classrooms can be of any size so long as each school has an overall pupil-teacher ratio of 25 to one. The only exception to this is for English classes, which must average 24 to one across the division.

To determine the required minimum number of secondary teachers, the school-size standard of 25 to 1 is applied to each school in a division. In order to make comparisons among school divisions, JLARC staff converted the required number of teachers at each grade to a standard expressed on a teachers per 1,000 pupils basis. As a result, the school-size standard of 25 to 1 equated to 40 teachers per 1,000 pupils. Since this operation includes all enrolled pupils, including those receiving vocational and special education, a portion of the required number of teachers that are calculated includes vocational and special education teachers.

On average, school divisions provide more than the required minimum number of regular secondary teachers. For example, when considering all non-federal secondary positions, including special education, school divisions provided on average 14.54 more teachers per 1,000 students than is required by the SOQ (Table 21).

Table 22 shows which types of secondary instruction require the most staff per 1,000 secondary pupils. This measure partly reflects the proportion of students who take these classes plus the intensity of staffing that must be offered relative to the number of pupils in a class. The areas with the greatest ratios of staff per 1,000 secondary pupils are: vocational education, special education, English, and math.

***The Number of Special Education Teachers Reported by School Divisions Is Less than the SOQ Cost Model Assumes, But Divisions Hire More Special Education Aides.*** The general trend is that school divisions employ more teachers than are required by the SOQ and than are recognized by the SOQ cost model. However, one of the areas that appears to be counter to the general trend is special education staffing.

<b>Table 21</b> <b>Comparison of SOQ Secondary Teacher-Pupil Ratios with Division Practices (Positions per 1,000 Secondary Pupils)</b>					
	<b>SOQ Secondary Teachers</b>		<b>School Division Practice</b>		
<b>Secondary Teachers</b>	<b>Codified State SOQ Teacher-Pupil Ratio</b>	<b>Applied State SOQ Teacher-Pupil Ratio (Average)</b>	<b>Division Ratio With State and Local Positions Only (Average)</b>	<b>Division Ratio with State and Local Positions Only (Linear Weighted Average *)</b>	<b>Division Ratio With Federal Positions Added (Average)</b>
Total	No Standard	66.79	81.33	80.23	82.55
Total Minus Special Education	No Standard	50.52	70.58	69.74	71.03
Regular	40 per 1000	40.49	53.65	52.93	53.71
* See note on this measure provided in Table 17. Source: JLARC staff analysis of school division survey data.					

<b>Table 22</b> <b>Division-Reported Teacher Positions Funded from State and Local Funds Per 1,000 Secondary Pupils</b>			
<b>Regular Secondary Teachers (Linear Weighted Average) *</b>		<b>Other Secondary Teachers (Linear Weighted Average) **</b>	
English	10.79 per 1000	Vocational Education	12.11 per 1000
Math	9.62 per 1000	Special Education	10.30 per 1000
History / Social Science	8.65 per 1000	Alternative Education	1.57 per 1000
Science	8.43 per 1000	Other	0.79 per 1000
Physical Education	5.95 per 1000	Gifted Education	0.62 per 1000
Foreign Language	4.92 per 1000	ESL / ESOL	0.23 per 1000
Fine Arts	4.36 per 1000	Technology Education	0.16 per 1000
* The linear weighted averages (LWA) reported include all 132 school divisions responding to the JLARC survey. For the subjects listed as Regular education, divisions reported at least a partial FTE in each subject area except Fine Arts, in which two divisions reported 0 FTEs.			
** For the subjects listed as Other education, each division reported at least a partial FTE only for special education, although 128 divisions reported at least a partial FTE for vocational education. For the remaining subjects listed as Other education, the LWA increases if those divisions reporting 0 FTEs are excluded from the calculation. For Alternative Education, 107 divisions reported at least a partial FTE, and the LWA for those divisions is 1.96 per 1,000. For Gifted, 78 divisions reported at least a partial FTE, and the LWA for those divisions is 1.20. For ESL, 47 divisions reported FTE data, and the LWA for those divisions is 0.93. Finally, 28 divisions reported FTE data for Technology, and the LWA for those divisions is 1.29 per 1,000.			
Source: JLARC survey of school divisions and DOE fall membership data.			



eral report that special education is one of the most difficult recruiting areas that they face. It may be that school divisions are using aides relatively heavily due to the difficulty of recruiting teachers. It also may be the case that school divisions are more frequently utilizing aides to expand class sizes than is envisioned under the model. Also, the model makes certain assumptions, such as the counting of some special education pupils more than once, if they have more than one exceptionality. This is justified, for example, in cases in which these students spend part of the day as members of more than just one classroom. However, a feature such as this in the model may in some cases calculate more special education teacher FTEs than school divisions find they need to hire.

**Recommendation (14).** The Department of Education should conduct a review of special education staffing in divisions with fewer total FTE instructional positions, and fewer FTE teachers, than are calculated by the SOQ funding model. The department should focus on school divisions which have the greatest gap in total FTEs, and in proportion to total SOQ calculated FTEs, between the special education FTEs they report, and the model results. DOE needs to assess whether there are any problems with the sufficiency of local staffing relative to SOQ requirements, or whether there are any assumptions of the model that appear to be producing an overcount of the number of FTEs required. If DOE finds that any school divisions have understaffing, or that divisions are using aides more than appears best for quality educational purposes, the department should report these results to the Board of Education for its consideration in its annual report on the condition and needs of public education.

## TEACHER SALARY LEVELS

One of the ways in which some (but less than half) of the school divisions incur non-SOQ costs is by providing salaries for instructional personnel, including teachers, that go beyond the costs that are recognized in the State's SOQ cost calculations. Of the divisions which offer salaries above the State's salary cost calculations, however, several are large divisions. As a group, the divisions with the higher salaries have a majority of the State's teachers. A review of the issue of non-SOQ costs for teacher salaries requires a consideration of the State's calculation practice as well as actual school division actions on salaries.

### **The State Uses the School Divisions as the Unit of Analysis, and the Linear Weighted Average, to Estimate Prevailing Salary Costs**

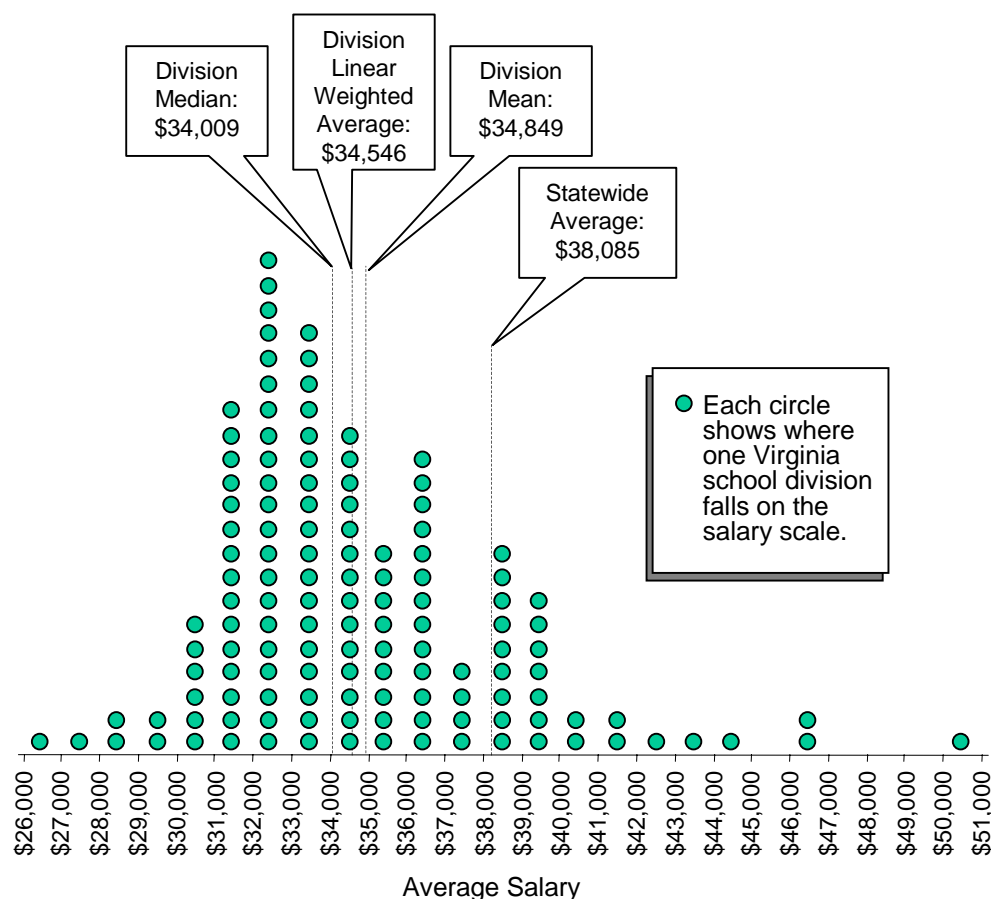
The State's approach to estimating salary costs for school division personnel, including teachers, uses the school division as the unit of analysis, in setting a salary cost that is used as a floor for all school divisions. The particular measure that the State uses to set the salary cost (and per-pupil support costs), is the linear weighted average, also known as the "L-estimator."

The linear weighted average includes all school divisions in calculating a salary to be used as a floor for funding school divisions. However, it is most influenced by the salaries offered by school divisions that are closest to the median, in a ranking of school division salaries. Critics of the State's funding approach often focus attention on the linear weighted average statistic, because by using it the State recognizes salary costs, even after a cost of competing adjustment is applied for Northern Virginia schools, that are at a level below the statewide average.

The State's perspective has been that setting a floor for all school divisions based on a salary (such as the statewide average) that is heavily driven by only a few school divisions is not a sound practice. This practice would have the effect of including in SOQ costs a base salary level that most localities have not chosen to pay, and absent further demonstration, may not need to pay in order to obtain quality teaching staff. The argument can be made that for the intended purpose of setting a floor funding amount for all school divisions, a statistic (such as the linear weighted average) which recognizes a higher salary than the salary of the median school division is ample (see Figure 7).

Figure 7

### Distribution of School Division Salaries for Elementary Teachers, 1999-2000 School Year



Source: JLARC staff analysis of Virginia Department of Education Annual School Report data.



### Comparison of Average School Division Teacher Salaries with the Linear Weighted Average Salary, and Statewide and National Average Salaries

Table 24 shows how school division actual average teacher salaries in 1999-2000 compare to the linear weighted average salary for that year. This table reflects a single average for both elementary and secondary teachers.

<p style="text-align: center;"><b>Table 24</b></p> <p style="text-align: center;"><b>Comparison of Average School Division Teacher Salaries with the Linear Weighted Average, Statewide Average, and National Average Salaries (1999-00)</b></p>				
73 Divisions Pay Below the Linear Weighted Average (\$35,297.80)		37 Divisions Pay Above the LWA But Below the State Average (\$38,743.68)	13 Divisions Pay Above the State Average But Below the Nat'l Average (\$41,820)	8 Divisions Pay Above the Nat'l Average (\$41,820)
ACCOMACK	KING GEORGE	ALBEMARLE	COVINGTON	ALEXANDRIA
ALLEGHANY H.	KING WILLIAM	AUGUSTA	FAUQUIER	ARLINGTON
AMELIA	LANCASTER	BATH	FREDERICKSBURG	COLONIAL HEIGHTS
AMHERST	LEE	BOTETOURT	HENRICO	FAIRFAX
APPOMATTOX	LOUISA	BRISTOL	MANASSAS	FALLS CHURCH
BEDFORD	LUNENBURG	BUENA VISTA	ORANGE	LOUDOUN
BLAND	LYNCHBURG	CHARLOTTESVILLE	RADFORD	PRINCE WILLIAM
BRUNSWICK	MADISON	CHESAPEAKE	RICHMOND CITY	SALEM
BUCHANAN	MARTINSVILLE	CHESTERFIELD	ROANOKE	
BUCKINGHAM	MATHEWS	CLARKE	ROANOKE CITY	
CAMPBELL	MECKLENBURG	DANVILLE	VIRGINIA BEACH	
CAROLINE	MIDDLESEX	ESSEX	WILLIAMSBURG-JCC	
CARROLL	MONTGOMERY	FRANKLIN CITY	WINCHESTER	
CHARLES CITY CO	NELSON	FREDERICK		
CHARLOTTE	NEW KENT	GOOCHLAND		
COLONIAL BEACH	NEWPORT NEWS	HANOVER		
CRAIG	NORTHAMPTON	HOPEWELL		
CULPEPER	NOTTOWAY	ISLE OF WIGHT		
CUMBERLAND	PAGE	MANASSAS PARK		
DICKENSON	PATRICK	NORFOLK		
DINWIDDIE	PETERSBURG	NORTHUMBERLAND		
FLOYD	PITTSYLVANIA	NORTON		
FLUVANNA	POWHATAN	POQUOSON		
FRANKLIN CO	PRINCE EDWARD	PORTSMOUTH		
GALAX	RAPPAHANNOCK	PRINCE GEORGE		
GILES	RICHMOND CO	PULASKI		
GLOUCESTER	ROCKBRIDGE	SCOTT		
GRAYSON	ROCKINGHAM	SMYTH		
GREENE	RUSSELL	SPOTSYLVANIA		
GREENSVILLE	SHENANDOAH	STAFFORD		
HALIFAX	SOUTHAMPTON	SURRY		
HAMPTON	STAUNTON	SUSSEX		
HARRISONBURG	SUFFOLK	TAZEWELL		
HENRY	WARREN	WAYNESBORO		
HIGHLAND	WASHINGTON	WEST POINT		
KING AND QUEEN	WESTMORELAND	WISE		
	WYTHE	YORK		
<p>Note: The averages reported in this table are for combined (elementary and secondary) teacher compensation. (The illustrative data in prior Table 23 was only for elementary teachers).</p> <p>Source: JLARC Staff Analysis of Virginia Department of Education 1999-2000 Annual School Report Data.</p>				

As can be seen in the table, 73 school divisions (56 percent) paid less than the linear weighted average in 1999-2000. There were 58 school divisions (44 percent) which paid an average salary above the linear weighted average, and therefore may have incurred local non-SOQ costs due to the teacher salary issue. It should be noted that the linear weighted average salary is adjusted based on a cost-of-competing factor for Northern Virginia localities. Of the 58 school divisions which were above the linear weighted average, 37 divisions still paid less than the statewide average salary. Thus, 110 of the 131 school divisions (84 percent) paid average salaries that were less than the statewide average. Of the 21 divisions which paid above the statewide average, eight divisions also exceeded the national average salary for that year. Six of the eight school divisions in this category were Northern Virginia school divisions.

### **Criticisms of the State's Approach to Salaries**

Critics of the State's approach to salaries, and particularly of the linear weighed average, have argued that a higher salary, such as the statewide average, should be used as the floor for SOQ costs. Four points of concern about the linear weighted average are often raised by the advocates of the use of a higher salary, such as the statewide average salary. These points reflect some misperceptions or misunderstandings of the State's approach, although one of these concerns is related to a legitimate issue discussed in Chapter IV regarding salary options. (The issue is whether there is a need for additional salary adjustments to the linear weighted average, in order to reflect more local conditions which may entail unique costs beyond typical school division experience). The following seeks to clarify the use and implications of the linear weighted average in areas in which there is currently some misunderstanding.

***The Linear Weighted Average Does Not Attempt to Estimate Known Expenditures, But Rather Is Used to Estimate the Central Tendency of the Data.*** The first misperception about the linear weighted average approach is the view that the measure is an attempt to "estimate" the statewide average salary level, when the statewide average can actually be calculated, is a known quantity, and could be used to more accurately achieve the same purpose. Some of the measure's critics have suggested that the measure is a deliberately low and erroneous estimate of the statewide average teacher salary, a statistic that is calculated in Virginia and in other states. The linear weighted average has been referred to as being akin to an attempt to guess the number of items in a jar, when the items have already been counted. The measure is said by some to be applicable to estimating from a sample to a population, when the population values are not known. But with regard to teacher salaries, for example, the critics note that the data for the population are known.

The measure is not, however, an attempt to estimate from a sample to the population, nor is it an attempt to estimate the statewide average. It is an "estimate" in the sense that it seeks to provide a single best estimate of the central tendency of data that tends to be skewed (unduly influenced by extreme values). It includes all of the actual average salary figures from each of the school divisions. It

includes all of these values in the calculation of central tendency, or “prevailing costs,” but gives greater weight to the middle values.

***The Linear Weighted Average Produces a Higher Cost Than the Median, and Was Not Selected to Reduce Costs Below Those Yielded by More Commonplace Measures.*** It is sometimes stated that the use of any more commonplace measure of central tendency, such as the median or mean, would produce a higher cost than is produced by the linear weighted average. In fact, however, the median school division salary in Virginia, for example, consistently produces a lesser salary than the linear weighted average. The division-level mean, although above the linear weighted average, is below the statewide average also. The linear weighted average is used to take into account the actual costs for salaries experienced by school divisions, and provide an estimate of central tendency that has a reasonable relationship to the average salaries reported across school divisions.

***Among School Divisions, Large Divisions Do Not Inherently Have Typical Unit Costs.*** A third issue which is sometimes raised is that the linear weighted average measure does not weight school division unit costs based on enrollment size. The size of school divisions is a key factor in driving SOQ funding amounts, as the number of teachers or the number of pupils in each division are multiplied times the unit costs, such as teacher salaries or per-pupil costs, to determine the costs and the funding to be provided. However, in determining the minimum cost or price per unit (the cost per teacher or per pupil) to be used in SOQ cost calculations and funding, school division size is not a factor.

The issue actually is not the selection of the linear weighted average as the statistic, but rather the use of the school division as the unit of analysis. This criticism would apply to measures other than the linear weighted average, such as the division median or mean. Generally, it has not been well understood that the use of the school division as the unit of analysis is the more critical factor, resulting in a lower salary than the statewide average, than is the selection of the particular statistic to represent the central tendency among the school divisions.

The State’s view on this issue has been that an appropriate unit cost for use as a base in funding all school divisions ought to reflect a unit cost level that is reflective of the cost choices of most school divisions. The cost choices of large school divisions are not inherently more representative of what most school divisions need to provide than the cost choices of small divisions. Based on school division salary actions, with a majority paying less than the linear weighted average, the use of the linear weighted average for its intended purpose – to set a minimum unit cost floor – does not seem to be unreasonably restrictive.

***Higher Salaries in SOQ Cost Calculations May Lead to More State Funding, But May Also Contribute to the Need for More Local Revenues in Some Localities.*** A final misperception is that if a SOQ salary higher than the linear weighted average salary were recognized by the State, then the local fiscal situations of all localities would only brighten. It has been argued that local taxes are higher than they would be if the State recognized SOQ costs, such as teacher salaries, at a higher cost level. And, it is true that localities with high non-SOQ expen-

ditures that easily meet their required local share match could use the additional State funds to replace local dollars, thereby freeing those funds for other spending purposes or for tax relief. This picture is not true for all localities, because it neglects the fact that there is a local share of SOQ costs which must be paid.

As with any increase in the SOQ and in its accompanying cost calculations, if the State increases the salary floor – and especially if it does so while keeping salary costs current and recognizing more instructional positions than in the past – then more localities with limited local non-SOQ expenditures will need to put forth a higher local effort to meet the required local share. The State's use of a statewide average salary, with State insistence that SOQ costs be met, would likely have a substantial impact upon the local fiscal situations of localities such as Highland County, Lee County, the City of Petersburg, and may have an impact upon the 107 other divisions that pay salaries below the statewide average. It would likely require that local taxes be raised, not decreased, in some of these localities.

***Concerns About the State's Use of a Cost of Competing Factor for Northern Virginia Localities.*** The State's calculated linear weighted average salary is adjusted to recognize the higher salaries that need to be paid in Northern Virginia due to the surrounding competitive labor market. This approach is consistent with the State's recognition of a pay differential for its own employees in Northern Virginia.

It is sometimes asserted that the cost of competing is a key factor which has actually enabled Northern Virginia localities to pay higher salaries and obtain a competitive advantage. However, this is an inaccurate view of the sequence of events. Northern Virginia localities paid higher salaries than typical in the State prior to when the cost of competing factor became recognized by the State, and typically the percentage differences between Northern Virginia school divisions and other divisions exceeded the cost of competing factor.

An alternative concern is sometimes expressed that the cost of competing factor enabled already high-paying school divisions to pay even higher salaries. This view also does not take into account the circumstances which existed at the time the cost of competing factor became State policy. The factor was adopted as State policy at a time when the State was in the process of equalizing (funding on the basis of ability to pay) a number of major funding accounts, including: the special education add-on, the vocational education add-on, the remedial education add-on, fringe benefits, and pupil transportation. The State had paid 50 percent of the add-on categorical costs, and 100 percent of the fringe benefit and pupil transportation costs, without regard to ability to pay. Therefore, given the high composite indices of most of the Northern Virginia localities, the cost of competing factor was introduced at a time when these localities were losing State funds due to some major changes benefiting lower composite index localities.

The cost of competing factor is an attempt to recognize a legitimate regional wage market effect that impacts the salary costs of the localities receiving it. To the extent that these localities have high abilities to pay, the State only pays a small fraction of the cost. Acknowledgement of the merit of this adjustment, how-

ever, does not mean that other localities do not have factors which may negatively impact their ability to compete for personnel.

## CONCLUSION

If the State wishes to enhance its support for elementary and secondary education operating costs, then instructional staffing is a major area that needs to be considered. School divisions typically provide more instructional personnel on a per-pupil basis than are recognized by the State. Higher levels of instructional staffing than are required by the standards occur for a variety of reasons. The State may wish to elevate its instructional staffing standards, or recognize additional positions as part of non-SOQ costs.

The issue of teacher salaries is a challenging one for State policy. The magnitude of the teacher salary that is offered locally is the most important factor statewide in explaining the extent to which school divisions expend local non-SOQ funds. The measure the State uses to calculate a teacher salary floor, or minimum, that is recognized in all school divisions still exceeds the salary levels that most school divisions choose to offer. Virginia school divisions appear to have generally placed a higher priority upon having more teachers, and lower pupil-teacher ratios, than upon teacher salaries.

While critics of the State's approach to salaries have often advocated a return to the use of the State average as the floor SOQ payment amount, it is not clear that raising the State's floor is the answer to the teacher salary issue. Proponents of the use of a statewide average in effect argue for increasing the SOQ calculated floor or minimum from a linear weighted average salary that is underpaid in 73 divisions (56 percent) to a statewide average salary that is not currently paid in 110 school divisions of the State (84 percent of the divisions). The case for such a change given current school division salary practices appears to be weak.

However, the State may wish to consider some funding options for salaries that do more to distinguish between school divisions, in terms of the salary levels toward which the State contributes. The State may need to consider options which address more factors that are beyond local control, like the cost of competing in Northern Virginia, and have an impact upon the ability of the school division to successfully attract and retain teachers.

The State also needs to consider what its long-term goals for teacher salaries are. To the extent that localities are encouraged and funded to seek improved teacher salaries, the linear weighted average calculation will respond to those actions and increase also. However, the State's goals are not currently clear.

There are a number of goals which could be used in developing education funding options. The subject of funding options in general, and salary options in particular, are discussed in the next chapter of the report.



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## **IV. Options for the State's Recognition of Education Costs**

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The purpose of this chapter is to organize, describe, and estimate the State costs of several options that would expand the State's recognition of education costs. The options in this chapter go beyond the increased SOQ cost estimates for FY 2003 and FY 2004 that were described in Chapter II. The options are intended to respond to the interest expressed by policy-makers in potentially enhancing the State's contribution to elementary and secondary education funding. If there is an inclination to enhance the level of State support, then this chapter identifies ways in which State support for public schools and/or facility costs could be expanded. Some of these options reflect the current practices of many school divisions, while some (such as a national average salary) are currently practiced by very few.

For the options or policy initiatives shown in this chapter which go beyond the SOQ, the relative State and locality cost responsibility depends upon some policy assumptions, such as the State's aggregate share of the cost, and the extent to which current State non-SOQ funds are applied to meet the costs. In estimating the costs for illustrative purposes in this study, the costs were estimated using a 55 percent share (except for debt service costs, where up to 50 percent was assumed). The costs were also estimated by assuming the application of current State non-SOQ funds for capital purposes to pay part of the State's share of debt service costs, and the continuation of other State non-SOQ funds at flat levels, but without diversion to meet the costs of the proposed options.

The options examined were categorized into three tiers. Tier One was already discussed in Chapter II of this report. That tier represents the State's first and foremost responsibility, to fund estimated SOQ costs.

Tier Two options reflect several prevailing operating practices in the school divisions, and costs for at-risk pre-school programs, which appear to merit State consideration of enhanced funding support. These options are:

- Funding elementary resource teachers, and funding the cost implications of having a required planning period at the secondary school level;
- Reducing maximum class size standards to the maximum class sizes that are actually provided in 75 percent of the school divisions, and using the linear weighted average number of pupils per teacher to set division-wide ratios for use in funding; and
- Expanding State payments for pre-school programs for at-risk four year-olds.

The estimated State costs for the Tier Two options total to an additional \$330 to \$414 million in FY 2003 (above and beyond the \$480 million increase in State costs reported in Chapter II to fund SOQ costs). The estimated increase in State costs for Tier Two Options in FY 2004 ranges from \$343 to \$428 million.

The Tier Three options in this report address debt service costs, and teacher salary options that go beyond both the SOQ and current prevailing school division practices. The report recommends that the State consider forming a Task Force with executive and legislative branch participation, and the inclusion of other interested parties, to consider various options and potential State goals with regard to teacher salaries.

For some localities, enhanced State funding to pay a State share of these higher costs means that the State may help defray the cost burden of practices and services that they already offer. For other localities, the options offer the possibility of providing new practices or funding services at higher levels, using a combination of State funds and some greater use of local revenues as needed to provide a local match.

#### **TIER TWO FUNDING OPTIONS: ENHANCING THE RECOGNITION OF INSTRUCTIONAL PERSONNEL AND AT-RISK PRE-SCHOOL FUNDING**

Table 25 summarizes the Tier Two funding options and their estimated State costs in FY 2003 and FY 2004, should the State decide to fund the options. Costs in the table are added to the Tier One costs from Chapter II. The remainder of this section of the chapter describes the Tier Two options in more detail.

#### **Tier Two Funding Options: New Costs May Be Justified to Ensure the Adequate Implementation of Existing Instructional Requirements**

Some education costs incurred by most school divisions are referenced by the SOQ, but have not been included in SOQ costs based upon certain assumptions about the intent of the written standards. In at least two instances identified for this review, the reasonableness of these assumptions needs to be given fresh consideration. These areas are elementary resource teachers, and the interaction between State standards providing for a 25:1 average pupil-teacher ratio in secondary schools and the requirement for a planning period in secondary schools.

***Elementary Resource Teachers.*** The State Standards of Accreditation (SOA), which are a part of the SOQ framework, indicate that in addition to the “essential academic disciplines,” each school division should have a program of instruction that provides “additional instructional opportunities that meet the abilities, interests, and educational needs of students.” Regarding the instructional program in elementary schools, the Standards of Accreditation go on to state that: “...each school shall provide instruction in art, music, and physical education and health...”



<b>Table 25</b>  <b>State Costs for Tier One Plus Tier Two Options</b> <b>(Numbers in parentheses show accumulated increases)</b>		
<b>Funding Items</b>	<b>Estimated FY 2003 State Cost Above FY 2002, In millions (Above DOE FY 2002 planned allocation levels)</b>	<b>Estimated FY 2004 State Cost Above FY 2002, In millions (Above DOE planned FY 2002 allocation levels)</b>
<b>Tier One: Meeting SOQ Costs</b>		
<b>Funding Estimated SOQ Costs</b>	<b>+ \$ 480</b>	<b>+ \$ 580</b>
<b>Tier Two: Enhancing the Recognition of Instructional Personnel and At-Risk Pre-School Funding</b>		
<b>Prevailing Elementary Resource Teachers (Art, Music, and Physical Edu- cation)</b>	<b>+ \$ 110</b>	<b>+ \$ 114</b>
<b>Secondary Class Size of 25:1 with Planning Period</b>	<b>+ \$ 80</b>	<b>+ \$ 83</b>
<b>Prevailing Instructional Staffing Practices</b>	<b>+ \$ 136 to \$ 183</b>	<b>+ \$ 141 to \$189</b>
<b>Added Costs for Ex- panded State Payments for Pre-School Programs *</b>	<b>+ \$4 to \$41</b>	<b>+ \$5 to \$42</b>
<b>Total Estimated Increased Costs, Tier One Plus Tier Two</b>	<b>\$ 810 to \$894</b>	<b>\$ 923 to \$1,008</b>
<p>Note: The upper bound costs for prevailing instructional staffing practices likely contains duplication in some of the positions added, between the use of the reduced class size and lowered division-wide ratios. This upper bound will be recalculated for the final document.</p> <p>* The cost to retain current pre-school initiative policies but update the per pupil grant amount from its FY 1996 level (\$5,400) is an additional \$4.6 to \$5.3 million in FY 2003 and FY 2004. The cost to both update the per-pupil amounts and provide the program for up to 100 percent of unserved children would increase the cost by \$23.3 million in FY 2003 and by \$24.5 million in FY 2004. The cost to update the per-pupil amount, provide the program for up to 100 percent of unserved children, and allow localities to use Title I funds for other purposes would increase the cost by \$40.7 million in FY 2003 and by \$42.4 million in FY 2004.</p> <p>Source: JLARC staff analysis.</p>		

However, elementary resource teachers are not recognized in State SOQ cost calculations. Elementary resource teachers are considered instructional personnel, not support positions. Whereas the costs associated with support positions are calculated using a prevailing cost concept, SOQ costs for instructional personnel are calculated based on the quantified standards of the SOQ and the SOA. Unlike

many other types of instructional positions, the SOQ historically have provided no quantified standards pertaining to the employment of resource teachers, nor any explicit statement on how these resource programs are to be offered.

Therefore, it has been assumed that regular classroom teachers can provide this instruction and no additional teachers for these subject areas have been explicitly included in prior State cost calculations. (School divisions may use the instructional positions recognized by SOQ instructional position standards, such as the 57 instructors per 1,000 pupils for basic, special, and vocational education, as they wish, including to pay for resource instructors, as long as they meet all of the pupil-teacher requirements of the SOQ).

As documented in Chapter III, most school divisions employ teachers at the elementary level with expertise in each of these areas. Further, Virginia now has Standards of Learning, applicable to the elementary grades, in the areas of music, visual arts, dance arts, theatre arts, physical education, and health education. These standards were adopted by the Board of Education in May 2000. There are questions as to whether, in addition to the responsibilities that the classroom teachers have for SOL instruction in the academic curriculum, it is practical for regular classroom teachers to routinely have full responsibility for providing high-quality SOL instruction in these resource subject areas as well.

There is a need for the State to consider the compatibility of not recognizing resource teachers with the implicit as well as explicit intent behind the provisions of the SOA and the recently adopted SOLs. The lack of recognition of resource elementary teachers may be obsolete. This is an area in which the State's present-day intent needs to be clarified.

Tier Two therefore includes the costs associated with the prevailing levels of resource teacher FTEs per 1,000 pupils in the subjects specifically enumerated as part of the SOA instructional program in elementary schools: art, music, and physical education/health. The Board of Education should consider whether its intent as expressed through the Standards of Accreditation can be adequately met through the use of regular classroom teachers, or whether some minimum level of resource instructors should be available in each school division for some or all of these subjects.

***Interaction of 25:1 Pupil-Teacher Ratio and Required Planning Period for Secondary Grades.*** The Standards of Quality, in §22.1-253.13:1 of the *Code of Virginia*, require that school boards “shall assign instructional personnel in a manner that produces school-wide ratios of students in average daily membership to full-time equivalent teaching positions of twenty-five to one in middle schools and high schools.” The standard does not explicitly exclude special and vocational education teachers from being counted in determining whether schools meet the standard. Since the time that SOQ cost calculations have been based on the comprehensive application of the quantified instructional personnel standards, however, the standard has been interpreted to provide for a basic position for every 25 pupils enrolled. Additional positions that are provided for special and vocational education have not been discounted from the number of positions needed. Therefore, the calcu-

lation of basic positions (regular classroom teachers) for middle schools and high schools is based on the dividing the number of pupils in the middle and high schools by 25.

During the regional input sessions for this study, school divisions expressed the concern that the use of the ratio of one teacher per 25 students does not provide sufficient positions for them to have an average class size of 25 pupils for regular instruction. A review of the Standards of Accreditation (SOA), with an example of how staffing may be provided to meet the State standards, illustrates this point.

The SOA provide that “the secondary classroom teacher’s standard load shall be no more than 25 class periods per week”, which equates to five class periods per day. In addition, the SOA also provide that “one class period each day, unencumbered by supervisory or teaching duties, shall be provided to every full-time classroom teacher for instructional planning.” This period, then, is a planning period, and it equates to one additional class period per day. In combination, these provisions of the SOA equate to a six period day, of which one-sixth shall be used for planning. In practice, many school divisions in Virginia offer a seven period day, and almost half of Virginia’s school divisions operate on a “block schedule.” However, regardless of how many class periods are offered in a school division, the funding standard of 25 to one does not provide enough teachers for classes on average to have a pupil-teacher ratio of 25 to one, if a planning period is also provided.

The present funding calculation is based upon the provision of a basic position for every 25 pupils enrolled. To determine the number of teachers which are needed to meet this standard, the number of secondary pupils is divided by 25. However, this calculation is based upon the assumption that a planning period is not provided. By dividing the number of pupils by 25, this calculation implicitly assumes that teachers provide classroom instruction for the entire school day. Yet the SOA require that a planning period be provided every day, thereby reducing the amount of classroom time that can be provided by teachers during the school day. For example, if a school division operated on a six period day, then one of those periods would be required to be a planning period, leaving five instructional periods. As a result, during any school day, each teacher is able to provide classroom instruction for five-sixths of the day.

To provide for an average regular class size of 25 to one and account for the planning period, the funding calculation must be based on a lower pupil-to-teacher ratio than 25 to one. In accordance with the provisions of the SOA, this can be accomplished by multiplying 25 by five-sixths, which reflects the fact that a teacher does not provide classroom instruction for the entire school day. Therefore, if the State wishes to provide funding sufficient to realize an average class size of 25 pupils at the secondary level across a six period day that includes a planning period, the State would need to provide funding for teachers at a ratio of approximately 21 pupils per teacher.

**Conclusion.** The costs for elementary resource teachers and for the secondary pupil-teacher ratio and planning period standards have not been recognized

by the State, based on certain assumptions about the intent of State standards that varies from prevailing school division practice. These State assumptions may no longer be appropriate.

***Recommendation (15).*** The General Assembly may wish to consider funding a State share of the cost of the prevailing levels of elementary resource teachers in the school divisions, and/or a 21-to-one pupil-teacher ratio at the secondary school level (to fund an average class size of 25 to one, with a teacher planning period).

### **Tier Two Funding Options: Other Changes to Increase State Cost Recognition of the Instructional Staffing Practices of the School Divisions**

In addition to elementary resource teacher and secondary staffing levels, there are other ways in which instructional staffing practices of school divisions typically exceed the SOQ. The average ratios of instructional staffing positions on a per 1,000 pupil basis provided by Virginia's localities have been above the national average and the ratios provided by most other states. An option was developed for the study that addresses several other areas in which school division staffing practices exceed the current SOQ.

***Updating State Standards and/or Funding to Meet Typical Locality Practice.*** On average, Virginia's school divisions offer more instructional FTEs per 1,000 pupils than the national average and most states. Table 26 shows data from the fall of 1998 (the most recent data available at the time of this report from the National Center of Education statistics) on the number of FTE personnel per 1,000 students that are in employment categories that may be defined as "instruc-

**Table 26**

### **FTE Instructional Positions Per 1,000 Pupils: A Comparison of Virginia and the National Average**

<b>Position Category</b>	<b>Virginia FTE Positions Per 1,000 Pupils</b>	<b>National FTE Positions Per 1,000 Pupils</b>	<b>Difference (Percent)</b>
Teachers	70.63	60.73	+ 16.3 %
Instructional aides	12.40	12.62	- 1.7 %
Principals and Assistant Principals	3.28	2.78	+ 18.0 %
Guidance counselors	2.94	2.00	+ 47.0 %
Librarians	1.87	1.12	+ 67.0 %
<b>Total</b>	<b>91.11</b>	<b>79.25</b>	<b>+ 15.0 %</b>

Source: JLARC staff analysis of Fall 1998 data from the U.S. Department of Education, National Center for Education Statistics.

tional” in nature, both in Virginia and at the national average. In the teacher category, Virginia has about 16.3 percent more positions than the national average. This means that for about every six teachers that would be employed at the national average, Virginia school divisions on average will hire a seventh teacher. Virginia's ratio of teachers relative to pupils ranked eighth (tied for that ranking with West Virginia and Wyoming), among the 50 states plus the District of Columbia. The national average figure of 60.73 FTEs per 1,000 pupils is close to the number of FTEs that are currently recognized by the State in SOQ cost calculations (about 61.83 FTEs per 1,000 pupils).

When the teacher-per-1,000 pupils ratio is shown as a pupils-per-teacher ratio, Virginia's figure stood at 14.2 pupils per teacher in the fall of 1998, compared to a national average of 16.5. These figures, it should be noted, are less than the typical class size that is offered, because the data include resource teachers at the elementary level and special education teachers. It appears likely that the average regular class size in Virginia in the fall of 1998 was somewhere between 19 and 23 pupils.

Besides the teacher category, Virginia's number of positions per 1,000 pupils in all other instructional categories except instructional aides also exceeded the national average. Whether the national average or Virginia's higher averages are more appropriate for Virginia is a matter of educational policy judgment. It should be noted that the ratios for Virginia instructional FTEs other than classroom teachers, expressed as pupils per FTE position, equate to one principal or assistant principal FTE per 305 pupils, one guidance counselor FTE per 340 pupils, and one librarian FTE per 535 pupils.

In developing State policies regarding the funding of elementary and secondary education, policy-makers may wish to consider that already school divisions typically provide for smaller maximum class sizes than the State has recognized in its standards and in SOQ funding. While some of these additional positions are funded by non-SOQ categorical programs, many instructional positions are not. Therefore, a potential State role in requesting that localities as a group expand the number of positions they already provide (beyond prevailing levels) is incongruous with the lack of State support for the prevailing position levels most localities have now.

Thus, the focus of this report is on the instructional positions that are provided by most Virginia localities, but are not currently recognized by the State at prevailing levels in its standards or its SOQ cost computations. Specifically, the options address the fact that Virginia school divisions typically:

- Have lower maximum class sizes at the elementary level than the ceiling amounts set by the State Standards of Quality;
- Have lower average division-wide ratios at the elementary level of pupils-per-teacher than provided by the SOQ; and

- Employ more assistant principals, more guidance counselors, and more technology instructors than are funded by State cost calculations.

***Prevailing Instructional Staffing Option Calculates Teachers Using Smaller Class Size Maximums Than Are Currently Permitted by State Standards.*** Starting in the mid-1970s, several General Assembly sessions approved amendments to the codified SOQ expressing the goal of a gradual reduction in average pupil-to-teacher ratios and in maximum class sizes. The reductions were initially planned to be achieved in a few years. Later, the goals were relaxed. As documented in Chapter II, new and relatively less stringent standards were put into place in 1982-83, and there have been few changes to the SOQ pupil-teacher ratios and maximum class size standards since the mid-1980s.

Most school divisions report that their largest class sizes today are smaller in size than even the goals for maximum class sizes that had been envisioned in the 1970s SOQ. However, as indicated in Chapter III of this report, there is a considerable range across divisions in the maximum class sizes by grade, and some divisions still have at least some classes that are relatively large. Among the divisions with relatively high maximum class sizes is the largest school system in the State, Fairfax County.

For this report, JLARC staff calculated teacher FTEs at sufficient levels to eliminate the very largest class sizes that some students experience in the State. Under this option, the FTE positions assumed in education funding cost calculations for all school divisions, including those school divisions providing classes with enrollments substantially above statewide prevailing levels, are based on maximum ceilings set closer to prevailing practice. The maximum class size that is currently met by 75 percent of the school divisions, as reported on the JLARC survey, was used as a guide in calculating costs. The calculations used maximum class sizes of 22 to 23 in kindergarten and grade one, 23 to 24 in grade two, 24 to 25 in grade three, 26 in grade four, 26 to 27 in grade five, and 28 to 29 in grades six and seven.

***The Prevailing Instructional Staffing Option Calculates Teachers Based on a Lower Division-Wide Ceiling Than an Average of 25 Pupils Per Teacher.*** Currently, most school divisions achieve less than a 25 to one average pupil-teacher ratio at the elementary school level. Alternative division-wide standards were used in option runs, at the grade level. The division-wide ceilings for pupils per teacher that were used in the prevailing staffing cost calculations were: 20 to 22 in kindergarten and grade one, 20 to 23 in grades two and three, 22 to 25 in grades four and five, and 23 to 27 in grades six and seven.

***The Prevailing Instructional Staffing Option Funds Assistant Principals and Other Instructional Positions at Prevailing Levels, Rather than the Lower Levels Recognized in State Standards.*** Chapter III of the report documented that school divisions provide more principals, assistant principals and guidance counselors per 1,000 pupils than are recognized in State SOQ cost calculations. In the prevailing instructional staffing option under Tier Two, the pre-

vailing (linear weighted average ratios of positions per pupil) number of these non-classroom instructional staff are included in the costs.

***A Change in Funding, or a Change in State Standards Also?*** If the State pursues the option of funding prevailing school division staffing practices, a question arises as to whether the State SOQ minimum requirements will be adjusted as part of the change. In other words, will the State apply the new staffing assumptions simply to calculate State and local funding responsibilities? Or will the standards be changed, so that the minority of school divisions which do not have these lower ratios will be required to put them in place?

In the latter instance, the additional recognition of costs by the State would be accompanied by the need to employ more positions in those school divisions currently operating above the prevailing maximum class sizes. Classroom space would need to be available also. On the other hand, the impact under either scenario for school divisions which already consistently provide class sizes below the maximum class sizes proposed in the option will be to have more of their currently provided positions recognized by the State.

### **Tier Two Options: Added Costs for Expanded State Payments for Pre-School Programs**

Research studies have shown that early educational opportunities, particularly for at-risk children, may be one of the better investments that can be made in funding education. The Virginia Board of Education, the Virginia Department of Education, and the Virginia Council on Child Day Care and Early Childhood Programs produced a study of programs serving at-risk four-year-old children in November 1993. The report estimated the number of at-risk four year-olds in the State as well as the number of children that were not in preschool programs at the time. The children who were not in a program were designated as "unserved" children. The study estimated that there were 11,145 unserved children statewide, and the costs of providing these children with programs of acceptable quality was estimated at \$60 million, of which \$34 million would be the State share if funds were distributed using the composite index. Thus, the per-pupil cost for the children served was estimated at that time to be about \$5,400.

In FY 1996, the State appropriated about \$9.2 million for a pre-school initiative to provide a program to 30 percent of the children who were not currently served by Head Start or Title I funds. In FY 1997, State appropriations grew to about \$14.9 million, in support of the costs of serving 60 percent of the unserved children.

The Appropriation Act from the 2000 Session provided over \$20 million in each year of the 2000-2002 biennium for "At-Risk Four-Year-Olds Preschool Payments." The Act states that the intent of the General Assembly is to provide a State payment disbursed by DOE to "schools and community-based organizations to provide quality pre-school programs for at-risk four-year-olds unserved by another program." Funds for the biennium were to be based on an allocation formula providing

the State share for sixty percent of the “unserved” at-risk four-year-olds in each locality. Under the Act, to be eligible for the funding, programs must be full-day in nature. In FY 2002, DOE’s planned State allocations for this program are \$23.5 million.

As part of this JLARC review, an option for enhanced funding for pre-school programs for at-risk four-year-olds was constructed using three assumptions that differ from the current approach. The differing assumptions addressed: (1) the per-pupil cost, (2) increasing the percentage of children served to all those eligible for participation, and (3) providing State preschool funds to school divisions which provided pre-school education prior to the initiation of this State program.

***Increasing the Per-Pupil Cost.*** The 1993 study of pre-school programs estimated that a cost of about \$5,400 per pupil was appropriate for quality programs serving at-risk four-year-olds. This amount was funded in FY 1996. However, since FY 1996, there has been no increase in the per-pupil amount that is assumed in determining the costs for the program. The size of the grant toward which the State pays a share has remained at \$5,400 in the Appropriation Act.

The program cost, then, has not been kept current to take into account factors such as teacher salary increases and increases in support costs that are likely for this program. JLARC staff estimated the size of the grant amounts in FY 2003 and FY 2004 that would be necessary to provide a per-pupil grant with similar purchasing power as the \$5,400 payment in FY 1996. The average annual rate of inflation during those years (actual for 1996 to 2001, and projected for 2001 to 2004) was 2.6 percent. Therefore, to obtain similar purchasing power, the grant amounts in FY 2003 and FY 2004 would need to be approximately \$6,450 and \$6,620. Assuming no changes in pre-school initiative policies (such as changing the percentage of unserved children who get services through the program), the State cost to update the per-pupil amount is \$4.6 million in FY 2003 and \$5.3 million in FY 2004. This cost is in addition to the \$23.5 million in planned State allocations for the program in FY 2002.

***Cost of Expanding the Program to Cover Up to 100 Percent of “Unserved Children.”*** A way to enhance the pre-school program initiative would be to include the funding necessary to provide programs for up to 100 percent of the unserved population. An original goal of the program was to move to funding for 100 percent of the children, but the percentage has remained at 60 percent since FY 1997. The increased State cost to both update the per-pupil amounts and provide the program for up to 100 percent of unserved would be \$23.3 million in FY 2003 and \$24.5 million in FY 2004 (in addition to the State’s planned allocation in FY 2002 of \$23.5 million).

***Provide State Pre-School Funds to School Divisions Which Had Implemented At-Risk Pre-School Programs Prior to the Initiation of the State Program.*** The initial focus of the pre-school initiative has been to make the program available to children who have previously been unserved. This has meant that to the extent that localities had programs (such as Head Start and Title I pro-



grams) which were serving children, they were not eligible for participation in the initiative.

The issue here is funding equity and local ability to fund at-risk programs for students in later grades, rather than an expansion of the number of pre-school opportunities that are available. Still, if this issue is pursued, the increase in State costs would show up as preschool costs.

To explain this issue further, Appropriation Act language, and not the provisions of §22.1-199.1 regarding the Virginia Preschool Initiative, provides that school divisions implementing a preschool program using federal Title I funds prior to the implementation of this program are restricted in their eligibility for State program funds. There are more than 50 school divisions that therefore cannot fully access these funds.

The State's position on this matter is that it wishes for its pre-school program to provide new opportunities for pre-school programs, not fund existing programs that receive federal fund support. If the State provides the funding for the pre-school initiative in these divisions, this will not result in more pre-school programs, but rather will enable these localities to shift their federal pre-school dollars into other purposes.

Localities which are not eligible for full participation argue that the participating divisions receive State preschool funds and Title I funds that enable them to offer at-risk students both preschool and supplemental programs in later grades. On the other hand, school divisions which cannot fully participate must continue to use their Title I funds for their preschool programs, and do have access to Title I support for at-risk instruction in the later grades. The only difference between the two groups of localities, it is argued, is the degree of initiative that the divisions showed in implementing preschool programs.

The increased State cost to expand the program to cover up to 100 percent of the previously Title 1 as well as any other unserved children in these localities would be an estimated \$17.4 million in FY 2003 and \$17.9 million in FY 2004. Offered in conjunction with the previously discussed enhancements for the program, the program costs would go from \$23.5 million in FY 2002 to an estimated \$64.3 million in FY 2003 and to almost \$66 million in FY 2004.

***Recommendation (16.)*** The General Assembly may wish to consider funding the Virginia Pre-School Initiative Program by using an updated per-pupil grant amount.

***Recommendation (17).*** The General Assembly may wish to consider expanding the Virginia Pre-School Initiative Program to provide a State share of the grant amount for up to 100 percent of the "unserved" at-risk four-year olds in localities eligible for the program.

***Recommendation (18).*** The General Assembly may wish to consider funding a State share of pre-school programs in the school divisions

**that established their programs prior to the start of the State's Pre-School Initiative Program, enabling these divisions to use Federal Title I and other funds for other programs, as currently participating school divisions can.**

### **TIER THREE FUNDING OPTIONS: DEBT SERVICE AND TEACHER SALARY COSTS BEYOND TIERS ONE AND TWO**

In Tier Three, the cost impacts associated with options for capital costs and teacher salaries are considered. Capital cost options include a prevailing per-pupil debt service cost approach, and a building life cycle cost approach. Teacher salary alternatives include: (1) use of the statewide average teacher salary as a ceiling, to be used in combination with the linear weighted average as a floor, (2) use of the statewide average teacher salary, adjusted for the results of State salary surveys on the earnings of comparable positions in Virginia, and (3) funding a goal for moving the statewide average teacher salary forward, set at various levels compared to other states or the national average.

#### **Tier Three Funding Options: Additional Assistance for School Capital Costs**

In addition to operating expenditures, most school divisions make expenditures to finance new school buildings or to renovate and restore existing school buildings. These costs are reported as facility costs, in the year when the payments are made to the contractors performing the work. In addition, to the extent that the payments are made using loaned funds, the loan payments that are made each year as the locality repays the loans are reported as debt service expenditures.

There has been a long-standing debate in the Commonwealth about the role that the State plays in funding facility costs. Over the years, the State's primary role in providing support has been in lowering the financing costs incurred by the local governments (by extending low-interest loans), rather than participating through grants to pay for the costs. However, there have been exceptions. In the 1950s, for example, substantial grant funds were provided for facility purposes.

More recently, the State began funding a construction grants program in 1998, and required that at least half of the lottery fund proceeds provided to localities since 1998 be used for "nonrecurring expenditures." In FY 2000, this resulted in approximately \$117 million in State funding for facility costs, or about 15 percent of the facility costs, or 22 percent of the debt service costs, incurred by localities in that fiscal year. While expressing appreciation for these funds, at input sessions on education funding conducted by JLARC staff during the summer of 2000, various local governments and school divisions expressed their perspective that localities need additional support from the State to fund capital facility-related costs (see Chapter I).

School facility costs have become a critical issue across the country. Most states are having to increase their level of participation in facility costs because of the poor condition of current schools, and the need to build new schools. Virginia is no exception. Approximately 27 percent of Virginia's schools are over 40 years old, and will likely require renovation or replacement in the next 10 years. In a 1995-96 survey conducted by the Department of Education, divisions reported a \$2.1 billion shortfall in funds to meet maintenance and capital improvement needs. Thus, there is evidence that local governments already are, and will continue to be, facing a challenge in meeting facility costs.

How or whether the State should participate more in school facility funding is a policy choice. If the State decides to increase its level of facility funding, two approaches for determining the cost level at which the State might participate were considered during this study: (1) cost sharing of a building life-cycle cost approach, and (2) cost sharing of a typical per-pupil expenditure for debt service. The use of a prevailing per-pupil cost for debt service and the use of a 37.5-year life cycle assumption produced nearly the same cost to be shared between the State and local governments, \$443 to \$467 million per year (in 2000 constant dollars). The cost increase to the State from its FY 2002 base funding amount of \$107 to \$116 million depends upon the State share of the cost and the assumptions made to move the FY 2000 cost forward.

***School Division Expenditures for Facility Purposes.*** In FY 2000, Virginia school divisions spent \$773 million on school facilities. (Exhibit 3 defines the types of activities that are included in facility costs). Another \$532 million was spent on debt service (which is defined as payments for both principal and interest that service the debt of the school division). The majority of this facility and debt service funding was the responsibility of localities, because funding for facilities has not traditionally been regarded as a part of SOQ costs.

***Overview of State Requirements.*** State law gives the school divisions the responsibility for controlling, erecting, furnishing, equipping, and maintaining school buildings and appurtenances. Although school buildings are generally a local responsibility, the State does have some requirements for school buildings in the *Code of Virginia* (see Exhibit 4), also showing that the State has a role in school facilities. For example, divisions are to certify to DOE their compliance minimum standards developed by the Board of Education regarding the construction and renovation of schools (although a waiver generally can be obtained if a division wishes to deviate from certain regulations). These regulations for public school building construction are to include requirements related to the size of general classroom floor areas, number and type of outside play areas (such as multi-use hard surfaces and tracks), seating capacity of library media centers, noise reduction, and illumination levels.

Although facility costs have not been part of the SOQ, the 1986 JLARC SOQ report noted that capital outlay and debt service costs appear to fit into SOQ costs conceptually. Capital costs are involved in providing for basic educational programs, and the argument can be made that this capital activity should be attributed as part of a "meaningful foundation" program that the State should help guarantee.

**Exhibit 3****Facility Definitions**

**Facilities:** Activities concerned with acquiring land and buildings, remodeling buildings, constructing buildings and additions to buildings, installing or extending service systems and other built-in equipment, and improving sites. Includes the following:

Site Acquisitions: Activities concerned with acquiring and improving new sites.

Site Improvements: Activities concerned with improving sites and maintaining existing site improvements.

Architecture & Engineering Services: Include the activities of architects and engineers related to acquiring and improving sites and improving buildings.

Educational Specifications: Activities concerned with preparing and interpreting descriptions of specific space requirements of the various learning experiences of students to be accommodated in a building. The architects and engineers interpret these specifications in the early stages of blueprint development.

Building Acquisition and Construction Services: Activities concerned with buying or constructing buildings.

Building Additions and Improvements: Activities concerned with building additions and with installing or extending service systems and other built-in equipment.

Source: 1999-2000 Annual School Report memo from the State superintendent to division superintendents, Attachment C.

For example, the Standards of Accreditation require that school plant and grounds should be “safe and clean.” Therefore, activities to address safety concerns, including remedies of structural deficiencies such as roof weakness, might be considered part of a foundation program. In addition, SOQ requirements governing instruction can have a direct impact on facilities. For example, SOQ class size requirements directly contribute to greater capital outlay needs, to the extent that the standards provide for lower class sizes than the localities would choose on their own. Further, if options in this report for decreasing pupil-teacher ratios are to be implemented, then space in some school divisions could be an increased concern and more classroom space may be needed.

***Recognition of Costs Using a Building Life Cycle Approach.*** During 2001, the Virginia Consortium for Adequate Resources for Education (Virginia CAREs), an education advocacy group, developed recommendations for the support of public education. Virginia CAREs maintains that it is unlikely that localities will be able to fully address their aging facilities needs unless the State provides considerable assistance. The group also states that the capital ramifications of all operational mandates set by the State should be funded by the State.

Virginia CAREs recommended a funding formula that the State could use to provide additional State facility funding to localities:

## Exhibit 4

**Code of Virginia Requirements Pertaining to School Buildings****General Requirements**

**22.1-79 – Powers and duties [of school boards].** A school board shall ... care for, manage and control the property of the school division and provide for the erecting, furnishing, equipping, and noninstructional operating of necessary school buildings and appurtenances and the maintenance thereof by purchase, lease, or other contracts.

**22.1-135 – Health and decency.** No public school shall be allowed in any building which is not in such condition and provided with such conveniences as are required by a due regard for decency and health.

**22.1-136 – Duty of division superintendent to close buildings.** When a public school building appears to the division superintendent to be unfit for occupancy, it shall be his duty to close the same and immediately to give notice thereof in writing to the members of the school board. No public school shall be held therein nor shall any state or local funds be applied to support any school in such building until the division superintendent shall certify in writing to the school board that he is satisfied with the condition of such building and with the appliances pertaining thereto.

**State Requirements**

**22.1-138 – Minimum standards for public school buildings.** The Board of Education shall prescribe by regulation minimum standards for the erection of or addition to public school buildings governing instructional, operational, health and maintenance facilities where these are not specifically addressed in the Uniform Statewide Building Code.

**22.1-139 – Notice to State Superintendent of proposed expenditures.** A school board, before entering into any contract or obligation to expend any funds for school construction, shall notify the Superintendent of Public Instruction, who shall advise the school board of the services which he can render in connection therewith.

**22.1-140 – Plans for buildings to be approved by division superintendent.** No public school building or addition or alteration thereto, for either permanent or temporary use, shall be advertised for bid, contracted for, erected, or otherwise acquired until the plans and specifications therefor have been approved in writing by the division superintendent and are accompanied by a statement by an architect or professional engineer licensed by the Board for Architects, Professional Engineers, Land Surveyors, Certified Interior Designers and Landscape Architects that such plans and specifications are, in his professional opinion and belief, in compliance with the regulations of the Board of Education and the Uniform Statewide Building Code. The division superintendent's approval, architect's or engineer's statement, **and a copy of the final plans and specifications shall be submitted to the Superintendent of Public Instruction** [emphasis added].

First, the total square footage of permanent instructional space in each school should be determined. Then this figure should be divided by 25, to reflect a standard that each building should be expected to go 25 years between renovation cycles. This number should then be multiplied by the average cost per square foot of constructed school space in Virginia for the most recent year for which data can be tabulated. This amount should then be funded based on recognition of the various divisions' local composite indexes. In recognition that expenditures of equal amounts each year may not be the optimal way for such localities to address their capital requirements, there should be a policy permitting the use of capital reserve funds in order to save up money to address big ticket needs.

JLARC staff considered the general approach taken by Virginia CAREs during this study. Some modifications to Virginia CAREs' methodology were made when calculating costs using this option. First, JLARC staff found that 40 to 50 years appears to be the typical life expectancy of school buildings. However, since other components of a building – such as boilers, furnaces, and carpeting – may need to be replaced earlier than 50 years, three variations of this funding formula were calculated. One assumes a 50-year life cycle, one assumes a 25-year life cycle, and one assumes a life cycle that is the midpoint of the two (37.5 years). Second, total square footage data was used in the calculation, not instructional square footage, because instructional square footage was not available. (Since complete square footage data was unavailable for certain school divisions, JLARC staff estimated the total square footage for these divisions using the average square footage for schools in that division.) Table 27 presents the annual cost impact to the State of the various options. As shown, depending on the percentage of the total cost that the State decides to fund and the useful life that the State decides to assume, the added cost (beyond current funding levels) to the State ranges from about \$10 million to \$243.3 million per year.

***Recognition of Costs Using a Prevailing Per-Pupil Debt Service Cost.*** In FY 2000, Virginia localities spent \$532 million for financing existing debt service obligations for schools. This includes expenditures reported to DOE on the Annual School Report as well as \$48.3 million in debt service expenditures that were made by local governments and paid outside of the school board budget. The amount spent per-pupil in that particular year varied across localities.

JLARC staff examined the variations in per-pupil expenditures for debt service costs (and for facility costs) using correlation and regression analysis. The purpose was to see if there is a need to adjust a prevailing per pupil amount, if it is to be used in funding school divisions, based on other factors.

In the analysis of debt service expenditures, there were some variables that had moderate explanatory power, but they were factors related to ability or

<p><b>Table 27</b></p> <p><b>FY 2000 Cost Impact to State of Facility Funding Methodology Based on a Building Useful Life Approach</b></p>						
	State Pays 50% of the Total Cost		State Pays 45% of the Total Cost		State Pays 33% of the Total Cost	
Assume Building Useful Life Is...	Total Cost to the State	Net Additional Cost to the State*	Total Cost to State	Net Additional Cost to the State*	Total Cost to State	Net Additional Cost to the State*
25 years	350,341,413	<b>243,341,413</b>	311,593,652	<b>204,593,652</b>	233,537,586	<b>126,537,586</b>
37.5 years	233,560,942	<b>126,560,942</b>	207,729,102	<b>100,729,102</b>	155,691,724	<b>48,691,724</b>
50 years	175,170,706	<b>68,170,706</b>	155,796,826	<b>48,796,826</b>	116,768,793	<b>9,968,793</b>
<p>*Assumes that the \$107 million in State funds available that were available for facility purposes in FY 2000 will be continued in the future and will be used to meet the State share of funding using the building useful life methodology.</p> <p>Source: JLARC staff analysis of data collected by Virginia Commonwealth University, and supplemental data obtained by JLARC staff.</p>						

willingness to pay rather than factors related to the facility needs of the division. For example, the variable that was most associated with per pupil debt service expenditures was the composite index; the analysis showed that wealthier localities (localities with a higher composite index) spend more on debt service per pupil. This is a reflection of a locality's willingness or ability to pay for facilities, rather than its need to pay for facilities. Therefore, since factors relating to facility needs did not appear to be associated with differences in localities' facility expenditures, the analysis did not support making an adjustment to the prevailing per pupil cost.

As mentioned previously, there is a level of duplication between facility and debt service costs. For example:

*A division pays contractors \$10 million to renovate three schools in FY 2000. Approximately \$9 million of the renovation is funded through bond proceeds, and the rest is funded with cash on hand. The total \$10 million is reported as a Facility expenditure (function codes 66100 - 66600) on the FY 2000 ASR. In subsequent years, the division must pay back the principal and interest on the \$9 million bond proceeds. The principal and interest that the division expends is reported as Debt Service (function code 67100) on future year ASRs.*

Debt service costs are more representative of what the divisions have spent on facilities over the long term. Therefore, if the State decides to contribute additional funds for facilities and it is decided that a prevailing per pupil cost should be used, funding should be based on a prevailing per pupil debt service cost. Although calculated on

the basis of debt service costs, the program should be structured so that as long as the funds are used for facility purposes, the locality could actually use the funds to pay these costs whether or not the costs are debt-financed.

JLARC staff calculated the State share of the total debt service cost by multiplying the linear weighted average debt service cost by the ADM in each division. Then, the composite index for each division was applied to obtain the State and local shares of the debt service cost.

Table 28 illustrates the total impact to the State if the State pays 50, 45, or 33 percent of the prevailing debt service cost. It also shows the net impact to the State, assuming the State continues to provide the same level of facility funding (grants and lottery funds) that was provided in the FY 2000-02 Appropriation Act. As shown, if the State continues to provide the same level of facility funding that it provided in FY 2000, and it is assumed that these funds will be used to help fund the prevailing per pupil debt service cost, then the net cost to the State ranges from \$40.6 million to \$114.4 million. At a 50 percent State share, updated net costs to the State for FY 2003 and FY 2004 are \$142 and \$149 million, respectively.

<b>Table 28</b>  <b>FY 2000 Cost Impact to State of Providing Prevailing Per-Pupil Debt Service Cost</b>			
<b>% of Total Cost to Be Paid by the State</b>	<b>Total Cost to State</b>	<b>Current Facility Funding Provided by the State General Fund*</b>	<b>Net Additional Cost to the State**</b>
50%	\$221,377,673	\$107,000,000	<b>\$114,377,673</b>
45%	\$199,239,906	107,000,000	<b>\$92,239,906</b>
33%	\$147,584,968	107,000,000	<b>\$40,584,968</b>
<p>*The State provided approximately \$116 million in grant and lottery funds in FY 2000. However, \$9 million of the \$55 million in construction grants that the State provided in FY 2000 was subtracted because the \$9 million comes from the Literary Fund, not the General Fund.</p> <p>**Assumes that the facility funds provided by the State in FY 2000 will continue in the future and will be used to meet the State share of the prevailing per pupil debt service costs.</p> <p>Source: JLARC analysis of DOE ASR data.</p>			

***Reducing the Use of the State's Literary Fund for Purposes Other Than Loans to Localities for Capital Costs.*** The State uses two programs, the Literary Fund and the VPSA, to provide low-interest loans to Virginia school divisions. Until recently, these were the two major sources of funds to help localities meet school building capital costs which were provided by the State.

The *Constitution of Virginia* states that Literary Funds may be used for public school purposes, including the teachers retirement fund, as long as the prin-



cial of the fund is at least \$80 million. The *Code of Virginia* allows funds to be used for:

- (i) erecting, altering or enlarging school buildings in such school divisions; (ii) purchasing and installing educational technology equipment and infrastructure; (iii) equipping school buses for alternative fuel conversions and for construction of school bus fueling facilities for supplying compressed natural gas or other alternative fuels; and (iv) refinancing or redemption of negotiable notes, bonds, and other evidences of indebtedness or obligations incurred by a locality on behalf of a school division which has an application for a Literary Fund loan for an approved school project pending before the Board of Education.

The Literary Fund has been used for a variety of purposes since it was created. According to *A History of Public Education in Virginia*, the Literary Fund was originally established in 1810 for the purpose of “providing schools for the poor in any county of the State.” However, when the Fund accumulated a surplus and the legislature found it difficult to spend the money on its stated purpose, other ways of using the fund were sought. Funds were provided to several higher education institutions, and “in 1861, the income from the Literary Fund was appropriated to the defence of the state”.

Beginning in 1988, Literary Fund revenues were used as a mechanism to finance the purchase of computers and related technology. During the 1990s, State loan funds for facilities were constrained because of the diversion of funds from the Literary Fund for teacher retirement. According to DOE staff, transferring revenue from the Literary Fund for teacher retirement payments has been a standard practice at least since 1973. This action reduced the general fund appropriations needed for teacher retirement and made the general fund revenues available for other purposes. However, it had a detrimental effect on school construction projects. From FY 1992 to FY 1994, no Literary Fund loans were granted because funds were re-programmed for teacher retirement. This caused projects on the waiting list to wait more than two years to receive funding.

According to DOE, the Governor and the General Assembly have made concerted efforts in recent years to reduce the level of transfers from the Literary Fund for teacher retirement to allow funding for more loans for school construction projects. In FY 1997, the legislature approved House Joint Resolution 667, urging restraint in using the Fund for other purposes.

However, \$8.4 million was transferred from the Literary Fund to the School Construction Grants Program in FY 1999. (This transfer amount was based on the estimated revenue from the unclaimed lottery prizes, one of the revenue sources for the Literary Fund). The 2000-2002 Appropriation Act also required \$9 million to be transferred from the Literary Fund to the General Fund for the School Construction Grants Program.

As of June 2001, it appeared that the maximum time being spent by school divisions still on the waiting list was about 12 to 13 months. Use of Literary Funds for other purposes than loans (such as the use of \$9 million for the School Construction Grant Program) can decrease the timeliness or the number of loans that can be funded from the Literary Fund.

**Conclusion.** The use of a 37.5 year building life cycle approach and the use of prevailing debt service costs per pupil produce nearly the same estimates of annual costs. The prevailing debt service cost per pupil approach may have benefits over the building life-cycle option, in that it is a more accurate reflection of what localities are currently financing. It is based on the actual behavior of localities rather than on an assumption of building life cycle costs. The General Assembly may wish to consider paying between 25 and 50 percent of these debt service costs, and reducing the diversion of Literary Funds for purposes other than for its primary purpose, loans to school divisions for capital purposes.

**Recommendation (19).** The General Assembly may wish to continue the approach of minimizing the extent to which Literary Funds are used for non-construction purposes. In addition, the General Assembly may wish to consider ending the practice of transferring funds from the Literary Fund to the General Fund for the School Construction Grants Program.

### **Tier Three: Teacher Salary Options**

The base (or floor) for teacher salaries which is used in this report is the linear weighted average salary. In the report, the cost of that salary in future years is estimated based on the recent historical rate of increase in teacher salaries in Virginia. The base salary is updated by this rate of increase in order to keep the paid prevailing salary current for the years which are to be funded.

The linear weighted average is a reflection of the salary level which is prevailing among school divisions in the Commonwealth. As most school divisions experience the need to increase salaries (to compete for staff in the midst of a shortage of qualified teachers, or due to a desire to enhance the level of compensation which is paid or improve the quality of staff, or for other policy reasons), the linear weighted average salary level will reflect that local movement on the salary issue.

It can be argued that local movement on teacher salary issues has been dampened by the fact that the State has not been contributing toward the education costs that are included in Tier One and Tier Two of this report. There is some reason to expect that if the State does decide to provide more support for such costs, which divisions already typically incur, then more localities will be in a position to use more local funds to pay for higher teacher salaries.

This section of the report has three specific options for expanding the State's recognition of teacher salary costs beyond the linear weighted average salary

base. The first of these options is to recognize more of the non-SOQ expenditures actually made by localities, by recognizing some of the higher salary levels which are paid above the linear weighted average. The second option uses the results from the salary survey done every two years by the Department of Human Resources Management. This survey is done pursuant to statutory language that provides that it is "a goal of the Commonwealth that its public school teachers be compensated at a rate that is competitive in order to attract and keep competent teachers". The third option is the use of the national average salary as a salary goal. Some policy-makers in Virginia have indicated a commitment to this goal.

This appears to be a critical point in time with regard to State decisions about its goals for teacher salary levels. Achieving the national average salary would require a substantial rate of annual increase in teacher salaries, but the current fiscal condition of the Commonwealth, as impacted by recent developments, may make for constrained budget decisions. The teacher shortage issue appears to be reflected in the high use of provisionally-licensed teachers by some localities, but the ultimate severity and impact of this issue is not yet known. There are differences within the Commonwealth in the ability of localities to attract and retain personnel. The levels of salary offered are a factor, but analysis also indicates that other factors may have an impact. For example, localities with a high cost of living or a high proportion of minority students appear to experience some greater difficulty in attracting or retaining personnel, controlling for other factors. Due to the challenges posed by the teacher salary issue and the need for a State policy to make the State's approach to the issue more predictable, the report recommends that the Governor and the General Assembly may wish to establish a task force to help set the State's future direction.

### **Recognizing Teacher Salary Levels Up to the Statewide Average for School Divisions Funding Salaries Above the Linear Weighted Average**

From the early 1970s to the late 1980s, the Department of Education (pursuant to the work of a 1972-73 Task Force on Financing the SOQ) used a statewide average salary (and a statewide average support) in estimating SOQ minimum foundation costs. The estimated costs based on these statewide averages were never funded by the State nor required of localities, and in fact, when JLARC examined education funding in the 1980s, relatively few school divisions (less than twenty percent) paid the statewide average. The appropriateness of setting a minimum for all school divisions based on an average that is achieved by few was questioned, and the use of the statewide average was replaced by the linear weighted average.

The appropriateness of changing the State's approach by using the statewide average as a floor for all divisions in estimating SOQ costs still appears to be questionable. Nonetheless, a number of large school divisions do pay salaries at levels above the linear weighted average. In fact, the majority of the teachers in the State are in divisions with average teacher salaries above the linear weighted average. The considerable size of the divisions that pay more than the linear weighted average accounts for the fact that the statewide average exceeds the linear weighted average to a considerable extent, even though relatively few school divisions pay it.

The State currently recognizes costs above the statewide average only in school divisions in PDC 8 (the planning district in Northern Virginia). The State could choose to provide State support for salaries up to the statewide average, as a ceiling, for those localities, such as the City of Richmond, which offer a salary above the linear weighted average. The total added costs due to the recognition of these costs is an estimated \$190 million in FY 2003, and an estimated \$198 million in FY 2004. The State's increased share of the costs for this initiative in FY 2003 and FY 2004 over FY 2002 planned allocation levels would be an estimated \$93 and \$97 million, respectively, over and above the cost increases for the SOQ. The State's percentage share of the cost in practice depends upon the composite index values of the school divisions which have salary levels between the linear weighted average and the statewide average.

The positive aspect of this option is that it provides additional support for localities which make non-SOQ expenditures due to having higher salaries. The potentially negative aspect of this option is that it raises some disparity concerns. Salary choices by localities reflect willingness and ability to pay higher costs, as well as objective need factors. Still, all divisions willing to pay above the linear weighted would receive funding support based on the composite index. Therefore, low composite index localities making this choice would receive payment from the State for 70 or 80 cents on the salary dollar, for eligible positions.

### **Adjust Statewide Average Salary Based on the Results from State Surveys of Comparable Positions in the Private Sector**

As discussed in Chapter II, §22.1-289.1 of the *Code of Virginia* requires a biennial review by the State's Department of Human Resources Management (formerly the Department of Personnel and Training) "of the compensation of teachers and other occupations requiring similar education and training." The most recent report (December 1999) on public school teacher compensation released by the Department of Human Resource Management available at the time of this review stated that:

In the 1998-99 school year, the average entry-level salary for Virginia public school teachers was \$25,813. Comparable entry level salaries in the private sector were 11.99% higher during that same time. However, when adjusted to reflect the actual number of days worked annually (200 for teachers and 234 for private sector employees), the entry level salary for Virginia public school teachers is 4.47 percent above that of private industry.

Entry level salaries for teachers are 2.38% higher than salaries for comparable state positions. When adjusted to reflect the actual number of days worked annually (200 for teachers, 234 for state employees), the entry level salary for Virginia public

school teachers is 19.78% above that of comparable state employees.

An appendix to the DHRM report showed that entry-level teachers in Virginia in 1997-98 earned a somewhat greater percentage of the State average salary than was typical nationally, at 68.3 percent compared to 65.4 percent national average.

One option for funding would be to increase the State recognition of teacher salaries to the level that are indicated by State surveys, when that figure exceeds the linear weighted average. The salary base for teacher salaries could be funded at the greater of: (1) the linear weighted average versus (2) a figure that adjusts the statewide average based on the difference in salaries between teachers and comparable private sector positions (in both cases, the cost of competing would then be applied to the salary base). Based on an adjustment to the statewide average to take into account the Department of Human Resource Management's comparability rate of 4.47 percent, the State could fund teacher salaries at 95.53 percent of the statewide average (or whatever that percentage adjustment might be, based on the results of the most teacher salary survey).

Such an approach should only be considered as a potential method for increasing, and not decreasing, teacher compensation recognition beyond prevailing salary levels. This is for at least two reasons. First, SOQ cost calculations need to at least recognize prevailing levels. Second, even controlling for experience, education backgrounds, and contract days per year, teaching positions have unique qualities, including the daily responsibility for a classroom of young children and the potential magnitude of uncompensated overtime hours (for example, evening grading of papers, or planning for the next day). The prevailing salary level needs to remain as a floor, for SOQ funding purposes, and to ensure that the computations take into account the salaries that divisions typically provide to account for these unique factors.

### **Funding of a Teacher Salary Goal to Achieve the National Average**

As previously noted, in FY 2000 a majority of Virginia's operating school divisions paid less than the linear weighted average elementary and secondary teacher salary, respectively. Over 80 percent of the operating school divisions (as well as the State, in its funding policies) paid less than the statewide average for teacher salaries. There were eight school divisions that paid an average teacher salary above the national average.

Still, there is discussion from time to time that the State ought to pursue the payment of a national average teacher salary. Whether that is a desirable or appropriate goal for Virginia is a policy decision. As mentioned in Chapter II, the Appropriation Act for 1988 to 1990 provided eight percent increases in Virginia salaries that were predicated on moving the state toward a national average salary, the Appropriation Act from the 1992 Session stated that the national average salary was the Commonwealth's goal, and at the 1995 Session, the General Assembly passed a joint resolution "reaffirming the goal of national salary parity for teachers."

In FY 2000, Virginia's average classroom teacher salary was \$38,744. This average salary was \$3,076 less than the FY 2000 national average classroom teacher salary of \$41,820 that was published by the American Federation of Teachers (AFT). Virginia's average salary is about 93 percent of the national average. Virginia's salary level ranked 25<sup>th</sup> among the 50 states plus the District of Columbia. Table 29 shows Virginia's standing compared to other southeastern states and the District of Columbia.

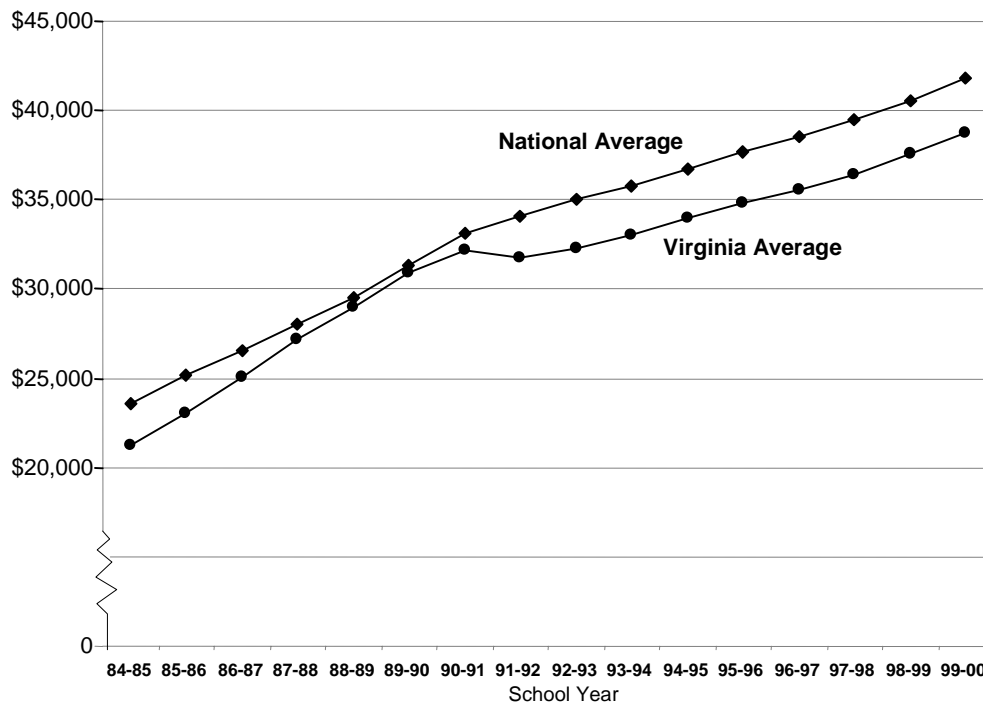
Table 29		
Virginia's Average Teacher Salary Standing Compared to Other Southeastern Jurisdictions		
FY 1990 Salary	FY 2000 Salary	Percent Change (FY 1990 to 2000)
\$38,402 Washington D.C.	\$48,304 Washington D.C.	+ 53.3 % West Virginia
\$36,601 Maryland	\$43,720 Maryland	+ 47.0 % Georgia
\$30,938 Virginia	\$41,122 Georgia	+ 41.3 % North Carolina
\$28,803 Florida	\$39,404 North Carolina	+ 37.9 % Kentucky
\$27,966 Georgia	\$38,744 Virginia	+ 34.3 % Tennessee
\$27,883 North Carolina	\$36,722 Florida	+ 32.6 % South Carolina
\$27,217 South Carolina	\$36,328 Tennessee	+ 27.5 % Florida
\$27,052 Tennessee	\$36,255 Kentucky	+ 25.8 % Washington D.C.
\$26,292 Kentucky	\$36,081 South Carolina	+ 25.2 % Virginia
\$22,842 West Virginia	\$35,011 West Virginia	+ 19.5 % Maryland
Source: <i>Survey and Analysis of Teacher Salary Trends 2000</i> , American Federation of Teachers, and Virginia Department of Education data.		

Virginia slipped substantially relative to the national average teacher salary in FY 1992, when Virginia's average teacher salary decreased by several hundred dollars at a time when the national average salary increased by about \$900. The difference widened somewhat in FY 1993 (see Figure 8).

If Virginia seeks to provide for an average teacher salary equal to the national average, it will likely do this on a phase-in basis. JLARC staff examined the cost impacts of achieving a projected national average salary by FY 2006. Considerable new funding from the localities and/or the State would be required to achieve this policy objective. The amount required to eliminate the difference in the salaries paid depends on a number of assumptions, particularly the growth of the national average salary between now and the planned end data for the phase-in of the plan. If the national average salary grows at the pace it typically grew from FY 1995 to FY 2000 (2.65 percent), then the amount of compensation paid in Virginia for teacher salaries and salary-driven fringe benefits would need to be an estimated \$4.758 billion in FY 2006 to achieve the goal (see Table 30, page 120). Thus, in FY 2006, the

Figure 8

### Virginia's Average Per-Teacher Salary Expenditures Compared to the National Average Teacher Salary



Note: Data on national average salaries are primarily from the American Federation of Teachers. Data on the State average is primarily drawn from Virginia Department of Education data.

Source: National Center for Education Statistics, *Digest of Education Statistics, 2000*, display of data from the National Education Association's *Estimate of School Statistics, 2000*; the American Federation of Teachers' *Survey & Analysis of Teacher Salary Trends, 2000*; and data from the Virginia Department of Education.

localities and/or the State and federal governments would need to spend an estimated \$790 million in new dollars that year (additional dollars beyond what was spent in FY 2002).

Since the average salary in Virginia in recent years has grown by about 2.79 percent per year, it can be argued that about \$360 million of this increase might be provided anyway, based on local-level decisions regarding teacher pay. This still means that a net estimated increase of about \$359 million in annual funding might be required in FY 2006, in addition to typical locality salary increases, for the purposes of achieving the goal. Assuming that the national average salary continues to increase beyond FY 2006, the goal of a national average salary would have cost implications beyond FY 2006 as well.

The State versus local responsibility for these costs is unclear. If the State pursues this goal, policy-makers will need to determine if the State's commitment is to: (1) fund a share of the net increase to move from the statewide average to

<b>Table 30</b> <b>Estimated Costs (Local and State) for the Commonwealth to Achieve a National Average Salary in FY 2006</b>				
	Average Salary	Salary-Driven Fringe Benefit Rate Multiplier for Calculations	Estimated Number of State and Locally-Funded Teachers	Annual Compensation
Virginia, FY 2002 Estimated	\$ 41,283	1.1221	85,653	\$ 3,967,759,962
Projected cost for Virginia to pay the national average in FY 2006	\$ 48,926	1.1221	86,671	\$ 4,758,226,165
New Dollars Required in FY 2006 Compared to FY 2002				<b>+ 790,466,203</b>
Anticipated increase in VA salaries without the goal	\$ 4,804	1.1221	86,671	- 429,866,724
Estimated New Dollars Required Only to Meet the Goal				<b>\$ 360,599,479</b>
Notes: The numbers of FTE teachers shown in the table exclude the 2,739 FTE teachers that were federally-funded in 1999-2000.  Source: JLARC staff estimates.				

the national average (the estimated \$360 million in costs above typical local salary increases that would be required), either for all positions, or just SOQ-recognized positions; (2) fund a share of the total increase required to move from the statewide average to the national average (the estimated \$790 million), either for all positions, or for SOQ positions; or (3) fund its share of the national average salary, by paying for the State share of the costs between the linear weighted average and the statewide average, in addition to the increases in SOQ costs and the increases shown here.

**Cost of Optional Salary Goals.** Table 31 shows the estimated increased costs which are associated with the various teacher salary goals which were considered in this report. The estimated costs of these options, in addition to the costs for Tier One, and not including the added costs to provide salary increases for any positions which may be recognized from Tier Two, ranges from \$84 to \$180 million in FY 2003. In FY 2004, the added costs range from \$87 million to \$212 million.



<p style="text-align: center;"><b>Table 31</b></p> <p style="text-align: center;"><b>Estimated Increases in State Costs for Tier Three Teacher Salary Options, FY 2003 and FY 2004</b></p>				
Option	Additional State Cost Above Tier One SOQ Costs (Millions)		Additional State Cost Above Planned FY 2002 Allocations (Millions), Including Tier One Costs	
	FY 2003	FY 2004	FY 2003	FY 2004
Linear Weighted Average Floor, Statewide Average Ceiling	\$ 93	\$ 97	\$ 573	\$ 677
Comparable Pay Report Findings	\$ 84	\$ 87	\$ 564	\$ 667
National Average by FY 2006	\$ 180	\$ 212	\$ 660	\$ 792
<p>Note: The costs shown in the column for the national average do not achieve the national average, but rather begin the process of moving the State toward that goal by FY 2006. The cost figures in the table are the costs associated with SOQ funding model positions only, reflect the existing division of State and local funding responsibility, and assume continued State non-SOQ funding at FY 2002 levels.</p> <p>Source: JLARC staff analysis.</p>				

The teacher salary issue is challenging. The General Assembly has expressed an interest over the years in enhancing Virginia's standing with regard to teacher salaries. Recently, there have been concerns about a shortage of teachers. In a tight market for teachers, school divisions which are unable to pay competitive salaries or have competitive disadvantages may have difficulty in obtaining quality staff. However, the compensation levels that may be required to enable some school divisions to be competitive and attract and keep competent teachers may differ somewhat from locality to locality.

The State currently recognizes a cost of competing factor for Northern Virginia. There is some evidence that some school divisions in the nearby PDCs (specifically, PDC 7 and PDC 9) may also have some regionally-based difficulties in competing for staff. In addition to regional differences, there are indications based on data that other factors may impact the ability of localities to attract and retain staff, such as the proportion of minority pupils in a division's student membership.

Higher salaries may be required to offset some of the disadvantages which school divisions may experience in attracting and retaining personnel. A difficulty, however, is in determining an appropriate State policy for recognizing these various differences in funding education costs. Using the actual salaries offered by school divisions reflects local choices. These choices, however, are also a reflection of local ability and willingness to pay as well as actual need; the actual choices contribute to some of the perceived inequities that may exist now between school divi-

sions in the degree of difficulty they experience in teacher recruitment and retention and in the quality of staff.

Some school divisions are already making substantial use of provisionally-licensed staff, in apparent response to recruitment difficulties. In 1999-2000, there were ten school divisions which reported that 40 percent or more their special education teachers were conditionally licensed, including four divisions with half or more conditionally licensed (Southampton, Petersburg, Charles City County, and Greenville). Also in that year, five school divisions reported that over 24 percent of their total teaching force was provisionally licensed (Sussex, King and Queen, Brunswick, Colonial Beach, and Cumberland).

The State should, at a minimum, recognize the prevailing salary level and keep that cost current. Although a majority of school divisions do not currently pay more than this level, the school divisions which do pay more incur substantial local non-SOQ costs for these salaries. This is especially the case because the State pays its share of the salaries for SOQ personnel only, and therefore a fractional portion of school division teachers are not recognized in State costs.

More school divisions may pay higher teacher salaries with additional State support for education – if local support does not dwindle when this happens. This report has offered some options for consideration in going beyond the prevailing salary levels. However, the State's goal for teacher salaries is currently unclear. The Governor and the General Assembly may wish to form a task force to consider the issue of teacher salaries, and provide recommendations for enhancing the State's approach if that is deemed appropriate.

***Recommendation (20).*** The Governor and the General Assembly may wish to create a Task Force to examine the issue of an appropriate teacher salary goal for the Commonwealth of Virginia, to assist in determining whether and how much of a salary increase should be provided in the future, beyond those increases which are sufficient to fund anticipated prevailing school division salaries.

***Recommendation (21).*** The General Assembly may wish to consider establishing, in future Appropriation Acts, the teacher salary goal that it wishes for the State to pursue, beyond keeping salaries current with the prevailing salary levels that can be anticipated in the years to be funded.

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## V. State and Local Cost Responsibility Options

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Once the education costs have been identified that will be shared by the State and localities, whether SOQ or non-SOQ, the relative State and local responsibility for these costs, by locality, and statewide, depends on three key considerations. The first of these is the aggregate State and local split of the responsibility to be achieved. In other words, what proportion of the overall cost, either by program or in total, should be paid by the State versus local governments? The second consideration is: what measure of local ability to pay should be used? The final consideration is: with what frequency shall the ability to pay factor be applied?

This chapter describes the current approach in Virginia to answering these questions. The *Constitution of Virginia* has vested the authority for answering these questions in the hands of the General Assembly. The General Assembly has opted for the following approach:

- For those costs which the State recognizes as SOQ costs, (and, as a practical matter, rather than as a pronouncement of policy, for other costs to which the State's measure of local ability to pay is applied), the State since FY 1993 has paid a 55 percent share.
- The measure of local ability to pay that is used is known as the composite index. This measure of local ability to pay is used extensively (about three-quarters of State funding). The single major exception is the State-appropriated sales tax, which is provided to localities on the basis of school age population.

The funding option framework developed for this study uses the current procedures in Virginia for determining State and local share responsibilities, as the base assumption for the illustrative options which are presented. The options framework and the illustrative options provided in the report are discussed in the next chapter.

The current chapter discusses the issues of: (1) the proportion of costs which are to be paid by the State versus localities, (2) the measurement of local ability to pay, and (3) the frequency of use of the measure of ability to pay in State aid for education. Of these issues, the lengthiest discussion regards the measurement of local ability to pay, as some options, such as the use of a population density factor, are provided to potentially adjust the State's ability to pay measure, the composite index.

## THE PROPORTION OF COSTS TO BE PAID, IN AGGREGATE, BY THE STATE VERSUS THE LOCALITIES

A frequently-heard statement about education funding in Virginia that has some currency among local government officials is that the State made a commitment to pay a 55 percent share of education costs, and has failed to meet that commitment. Since funds appropriated from the State budget (that is, including State sales tax) typically account for about 40 to 42 percent of the revenues received by school divisions (including local and State revenues which are used for capital purposes), the State, it is sometimes maintained, has failed to meet a 55 percent share commitment.

This view is not factually based. The State, as a policy choice, has been paying 55 percent of SOQ costs and certain non-SOQ programs. The State has not agreed, however, to pay 55 percent of statewide school division expenditures.

There is no statement in the *Constitution of Virginia* or State statutes as to a specific percentage share of education costs for which the State is accountable. The constitutional standard, in Article VIII, is simply that:

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.

The General Assembly may choose to make a specific percentage commitment for the relative State versus local cost responsibility for the SOQ (or education costs generally), or it may make such decisions on a year-by-year basis.

The misperception that the State has a commitment to fund 55 percent of operational expenditures is rooted in the fact that since FY 1993, the State has paid a 55 percent share of what it recognizes as SOQ costs, after the deduction of sales tax (and, less well known, after the deduction of prevailing locally-generated revenues, as discussed in Chapter II). From FY 1988 to FY 1993, the State incrementally increased the share of recognized SOQ costs that it paid from 50 percent (the percent it previously paid for most SOQ accounts) to 55 percent (see Table 32).

The increase in the State's share for the SOQ was done as an offset to its equalization of fringe benefit and pupil transportation SOQ accounts. The intent of the change regarding fringe benefits and pupil transportation was to distribute a greater proportion of limited State funds based on local ability to pay. The State had previously paid 100 percent of the SOQ fringe benefit costs it recognized for SOQ instructional personnel, and paid 100 percent of an approximately \$30 million per year pupil transportation categorical account. (The balance of pupil transportation costs were supported through another State account, using the composite index). At that time, by raising the percentage of SOQ costs that the State paid from 50 to 55 per-

Table 32

**Changes in the State Share of SOQ Costs  
from FY 1988 to FY 1993**

Fiscal Year	State Percent Payment of SOQ Costs Other Than SOQ Fringe Benefits	State Percent Payment of SOQ Fringe Benefit Costs
1988	50 %	100 %
1989	51 %	95 %
1990	52 %	85 %
1991	53 %	75 %
1992	54 %	65 %
1993	55 %	55 %
Source: Virginia Acts of Assembly (Appropriation Acts).		

cent, the State could approximately maintain the same overall level of support for the SOQ. The increased State costs of moving from a 50 to 55 percent offset the reductions in State costs that were due to moving away from 100 percent of these pupil transportation and fringe benefit costs.

Since FY 1993, the State has been paying a 55 percent share – of SOQ costs (and other costs funded by the State using its ability to pay measure, the composite index). As has been indicated in this report, the current Standards of Quality require less, and cost less, than the educational programs offered by most Virginia school divisions. Many localities provide more non-SOQ funding than the State. Options are presented in this report which would bring the State closer to paying a 55 percent of education costs. However, the fact that the State currently does not do this does not reflect a failure by the State to meet a commitment regarding its proportional share.

### **MEASURING LOCAL ABILITY TO PAY FOR EDUCATION**

Pursuant to the State Appropriation Acts, the Department of Education (DOE) currently uses the composite index to measure local ability to pay for education. Local ability to pay is a measure of a locality's wealth (the size of its tax base or resource base), which could be used to pay for the necessary government services required by its citizens. The composite index is a relative measure of local ability to pay. In localities with a low ability to pay, the State pays a higher percentage of their education costs.

The focus of this section is on some potential adjustments or changes to the composite index, which has been used in Virginia for almost 30 years. This is because many of the concerns that were raised about the composite index during this study can be addressed through changes or adjustments to the index. At this

time, it appears that the consideration of these adjustments to the composite index, a measure that has become familiar and generally accepted, may do more to improve the State's measurement of ability to pay for education than the use of a new measure such as the revenue capacity index. The primary issues that appeared to be of interest at the 2000 Session from which this study originated were whether and how the State might participate more in assisting local governments bear education costs, rather than redistributing existing State dollars by using an entirely new ability to pay measure.

### **Local Ability to Pay**

The concept of local ability to pay addresses the amount of revenue that a locality is able to raise from local sources to pay for the services provided by the locality (such as education, public works, and road maintenance). Conceptually, the amount of revenue from local sources that is raised within a locality may depend on a variety of factors. These factors include the following:

- **Strength of the local tax base.** Localities with a strong local tax base are in a better position to raise revenues than their peer localities that have a weak tax base. With a much lower level of effort (by imposing much lesser tax rates), these localities may be able to raise as much or more revenue than other localities.
- **Need / demand / cost of services.** Whether the localities with stronger local tax bases actually derive greater amounts of revenue than their peers may depend on several factors such as the need, demand, and/or cost for services. For example, a locality with a strong tax base but relatively few public needs or demands for public services has no reason to raise a substantial amount of revenue. On the other hand, a locality with a weak tax base but considerable public needs or demands for public services may raise substantial revenues despite its weak tax base, by extensively tapping that tax base.
- **Authority that the locality has to tap its tax base.** Cities and counties have different taxing authority under State law. Two localities may have similarly strong potential tax bases, but one of the localities may fall into a category of localities that has been given the authority to impose a more diverse range of taxes. Further, both localities may have an equal willingness to tax their real property tax base. Under this scenario, the second locality is in a position to raise a greater amount of revenue due to its greater taxing authority.
- **Willingness of the locality to tax its base.** The willingness of the locality to tax its base is another factor that may impact the revenues that are raised. A locality may have a strong tax

base and may face substantial demand for public services. However, the local electorate and the decision-makers of that locality may be relatively unwilling to pay for public services and may opt for low taxes, resulting in low revenues. On the other hand, another locality with a similar strong tax base and demand for public services may choose to provide higher levels of service and therefore raise a higher level of revenue from local sources.

- **The revenue-producing effectiveness of the locality's policies and practices for administering the taxes.** The revenue-producing effectiveness of local tax administration policies and practices can have an impact on the revenues raised. For example, if a locality infrequently assesses the value of property upon which it imposes taxes, or substantially underestimates the value of some of the properties, then it will obtain less revenue than it could. Similarly, a locality may choose to implement land use or other policies that may exempt or reduce the tax burden for certain properties, thereby also reducing the amount of revenue that is derived from a particular tax.

Even conceptually, these five categories are not always cleanly separable. For example, a locality may deliberately opt to infrequently reassess the property tax base or underestimate the values of property. This could be viewed as ineffective administration of the tax, or it could be viewed as recognition by the locality of the lack of willingness of the taxpayers in that community to pay the existing tax rate.

In funding education, the State's central concern regards a locality's ability to raise revenues for education, which is seen as stemming from factors largely outside of the locality's control. It can be contrasted with each locality's "willingness" to raise revenue, which is seen as largely within local control. Therefore the focus of ability to pay measurement is upon capturing the underlying economic condition or tax base of the locality, which is considered to be somewhat objective and generally beyond the locality's control. The particular tax rates that the locality chooses to impose, in contrast, are considered to be a decision within local control that is rooted in local willingness to pay.

However, the attribution of the five factors as within local control or beyond local control also may not be quite as clear as it appears at first glance. Setting aside local tax administration policies and practices, each of the other four factors could be viewed as having a dimension that is at least somewhat beyond local control, and therefore as having an influence on local "ability" to pay. For example, even taxpayer willingness or unwillingness to pay can be framed as a local ability to pay matter. If the taxpayers of a locality are absolutely unwilling under any circumstances to raise tax rates beyond a certain level, then it can be argued that the practical ability of that locality to pay for services beyond that level does not exist, even if the tax base appears strong. Still, this is not the way in which locality ability to pay has been traditionally defined.

## The Composite Index

The measurement of local ability to pay for education in Virginia has been an evolving process. From 1946 until the early 1970s, the formula used to measure local fiscal capacity (and to distribute State education funds) relied solely on the true value of real estate for each locality. When this component was the only component in the formula, the real estate tax represented a larger proportion of locally raised revenue. Major changes then began to occur, including the adoption of local option sales taxes and the urbanization of many localities, which led to the expansion of many nonproperty-tax sources of revenue. By FY 1970, only 50 percent of locally raised revenue came from the real property tax, 10 percent came from sales tax, and 40 percent came from all other property and non-property taxes as well as miscellaneous revenue sources.

It was evident to commissions studying State education funding around that time (the 1968-69 McMath Commission and the 1972-73 Task Force on Financing the SOQ) that real property could not accurately represent all locally raised revenues. Because most tax bases are a mixture of several different sources, a multi-component formula to measure ability to raise revenues was needed.

The composite index was developed by the Governor's 1972-73 Task Force on Financing the SOQ. It recognizes that property is not the only source of local revenue. The composite index compares the size of three major locality tax bases (relative to the locality's population and its average daily "student" membership, or ADM) with the collective size of local tax bases (relative to statewide population and ADM). The three major tax bases that are measured in the composite index are: real estate true values, taxable sales, and "other" revenues. "Other" revenues include general property taxes (such as the personal property tax); other taxes (such as business license taxes); permits, privilege fees, and regulatory licenses; fines and forfeitures; charges for services; revenue from the use of money and property; and other miscellaneous sources. For real estate values and taxable sales, the actual tax bases are used in the calculation. For "other" revenues, adjusted gross income is used as a proxy for these revenues.

The formula for calculating the composite index is presented in Figure 9. In the formula, the true value of real property is weighted 50 percent, adjusted gross income is weighted 40 percent, and taxable retail sales are weighted 10 percent. The composite index is standardized by both ADM and population, which are weighted  $\frac{2}{3}$  and  $\frac{1}{3}$ , respectively. (Population was included in the standardization to provide some assistance to major urban centers.) The final number is multiplied by the statewide local share of SOQ costs, 45 percent. For the 2000-2002 biennium, the composite index levels ranged from a low of .1886 in Lee County to a high of .8000 in eight localities. The composite index is capped at .8000 to ensure that all localities receive at least some assistance from the State. Table 33 shows the localities with the highest and lowest indexes.



**Figure 9**  
**Composite Index**

**ADM Component =**

$$.5 \left[ \frac{\frac{\text{Local True Values}}{\text{Local ADM}}}{\frac{\text{Total Statewide True Values}}{\text{State ADM}}} \right] + .4 \left[ \frac{\frac{\text{AGI}}{\text{Local ADM}}}{\frac{\text{Total Statewide AGI}}{\text{Statewide ADM}}} \right] + .1 \left[ \frac{\frac{\text{Local Taxable Retail Sales}}{\text{Local ADM}}}{\frac{\text{Total Statewide Taxable Retail Sales}}{\text{Statewide ADM}}} \right]$$

**Population Component =**

$$.5 \left[ \frac{\frac{\text{Local True Values}}{\text{Local Population}}}{\frac{\text{Total Statewide True Values}}{\text{Statewide Population}}} \right] + .4 \left[ \frac{\frac{\text{Local AGI}}{\text{Local Population}}}{\frac{\text{Total Statewide AGI}}{\text{Statewide Population}}} \right] + .1 \left[ \frac{\frac{\text{Local Taxable Retail Sales}}{\text{Local Population}}}{\frac{\text{Total Statewide Taxable Retail Sales}}{\text{Statewide Population}}} \right]$$

**Local Composite Index =**

$$((.6667 \times \text{ADM Component}) + (.3333 \times \text{Population Component})) \times 0.45$$

Source: 1997-98 Superintendent's Annual Report for Virginia.

**Table 33**

**Divisions with Highest and Lowest Composite Indexes**

Divisions with Highest Composite Indexes		Divisions with Lowest Composite Indexes	
Alexandria	.8000	Lee	.1886
Arlington	.8000	Portsmouth	.2225
Bath	.8000	Wise	.2237
Fairfax City	.8000	Petersburg	.2240
Falls Church	.8000	Scott	.2298
Goochland	.8000	Dickenson	.2358
Surry	.8000	Clifton Forge	.2423
Williamsburg	.8000	Lunenburg	.2448
Fairfax County	.7171	Charlotte	.2469
Rappahanock	.7130	Greensville	.2483

Source: JLARC staff analysis.

### **Consideration of an Adjustment to the Composite Index for Population Density**

Over the years, larger localities, and particularly cities, have argued that a “municipal overburden” factor impacts their local ability to pay for education. The argument has been that cities need to provide more non-education services to residents than is typical in other localities. The ability of cities to pay for education, it is argued, is reduced in meeting these competing demands.

To help assess this issue, JLARC staff conducted correlation and regression analyses to examine how various factors are associated with local revenue levels in Virginia. If a municipal overburden factor is at work in Virginia, then it should be possible to observe a strong actual relationship between non-education spending for some local services and locality population density. If there is a fairly strong and consistent pattern between the number of people concentrated in a given space and certain non-education services that are provided, then this association may be seen as indicating that these levels of non-education services are more a matter of need or a practical reality rather than a reflection of a simple desire by some localities to provide more services.

A number of potential explanatory factors (independent variables) were examined in the correlation and regression analyses. These factors are shown in Exhibit 5. Most of the variables selected were factors that are largely beyond the localities’ control, in order to determine the extent to which variables largely beyond local control appear to explain the amount of revenues raised.

The correlation analysis showed that total revenues were highly correlated with the size of a locality’s population. Therefore, JLARC staff used per-capita revenues in the analysis and tried to determine if other factors besides population could explain the level of revenues raised in the localities. The analysis indicated that per-capita revenues were highly associated with population density, even when controlling for local tax bases. (Population density is defined as the population per square mile of land area of a locality.)

The three major proxies for local tax bases accounted for 74.45 percent of the variation in local revenues raised in the regression model, leaving 25.55 percent unexplained. (These three proxies are: estimated true value of property per capita, AGI per capita, and taxable sales per capita.)

When population density was added into the model, the amount of variation explained increased to approximately 85 percent. The population density variable explains a large amount of the unexplained variation in the model with the three tax bases alone. (It reduces the unexplained variation by about 40 percent, accounting for 10 of the 25 percent unexplained variation). In fact, population density is the single strongest additional factor that was found in the analysis, after controlling for true real estate values per capita, taxable sales per capita, and AGI per capita. The findings from the regression analysis indicate that higher local population density may require more local spending in local government functions

**Exhibit 5****Independent Variables Used in Regression Analysis  
to Explain Actual Revenues Raised by Localities**

Total ADM  
 Total Population  
 Tax Effort (Revenues / Revenue Capacity)  
 Revenue Burden (Revenues / AGI)  
 Estimated True Value of Property, Total and per Capita  
 Taxable Sales, Total and per Capita  
 AGI, Total and per Capita  
 Median AGI  
 (Median AGI \* number of returns) / population  
 Percentage of AGI from Returns Over \$100,000  
 Number of Motor Vehicles, Total and per Capita  
 Number of Manufactured Homes, Total and per Capita  
 Number of Motor Vehicles + Manufactured Homes, Total and per Capita  
 Number of Boats, Total and per Capita  
 Coal Severance Revenues, Total and per Capita  
 Intergovernmental Revenue Received, Total and per Capita  
 County or City Status  
 Population Density  
 ADM per Capita  
 Division-wide Average Teacher to Pupil Ratio (per 1,000 ADM)  
 Local Cost of Living  
 Growth Rate in Population, Last 5 and 10 Years  
 Growth Rate in ADM, Last 5 and 10 Years  
 Unemployment Rate  
 Poverty Rate  
 Percentage of Pupils on Free / Reduced Lunch  
 Percentage of Fair Market Value that Is Commercial/Industrial (Land and Structures)  
 Percentage of Fair Market Value that Is Agricultural (Land and Structures)  
 Planning district commission (PDC) variables

Source: JLARC staff analysis.

besides education (such as public safety), meaning that less local money would be available for education.

Further regression analysis focused on local revenues spent on three particular local government functions which may require relatively higher levels of service in more densely populated localities. These three government functions are public safety, public works, and health and welfare. The regressions showed that, when controlling for the three main tax bases, population density was strongly related to locally-collected revenues spent on public safety, public works, and health and welfare. These findings indicate that, even when localities have tax bases of equal size, localities with a high number of people per square mile may have less local ability to pay for public education than localities with lower population density. So a policy option is to accommodate these localities with a population density adjustment.

The population density adjustment that was developed for this study is essentially a “discount” on the local share of public education funding, for localities with relatively high population density. The adjustment for localities with a high population density is a number that is less than 1.0, and would be multiplied times the composite index for that locality (before the cap of .80 is applied). The adjustment basically focuses on the proportion of local revenue capacity that is spent on public safety, public works, and health and welfare. An adjustment is applied that reflects how much more a locality with high population density typically tends to spend on these three functions. The adjustment leaves the remaining proportion of local revenue capacity that is spent on the other five governmental functions – education, general government administration, parks and recreation, judicial administration, and community development – unaffected.

The mechanics of the population density adjustment calculations are explained in detail in a JLARC staff appendix, *Technical Appendix: Population Density Adjustment to Local Shares*. This appendix is available as a supplement to the report. It should be noted, however, that one of the issues that needed to be addressed was the definition to be used for a “high population density” locality. Two alternative definitions and population density adjustment factors were developed. The first alternative set the 67 percentile locality (in terms of a ranking of localities based on population density) as the benchmark locality where the adjustment begins. This was based on the fact that 45 localities (or one-third of the localities) tend to have substantially higher population densities than the other cluster (consisting of two-thirds of the localities). The other alternative was to concentrate the adjustment on a smaller number of localities with the highest population densities. Another “break point in the distribution of locality population densities was observed at the 86<sup>th</sup> percentile, so the second alternative set the 86<sup>th</sup> percentile locality as the benchmark (which included the top 19 localities in terms of population density).

Table 34 shows the ten localities whose composite index would decrease the most as a result of a population density adjustment, first assuming a 67<sup>th</sup> percentile benchmark is used, and then assuming an 86<sup>th</sup> percentile benchmark. As shown in the table, under each assumption, nine out of the ten localities are cities. Under either assumption, the cities that benefit the most include Charlottesville, Richmond, Lexington, and Norfolk. The only county in this group is Fairfax. There are localities which also have very high population densities (such as Alexandria, Arlington, Falls Church, Fairfax City, and Williamsburg) that have a composite index cap of .80. However, after the population density adjustment is applied to the raw composite index of these localities, they still are above the .80 cap, so the adjustment has no net effect.

There is a substantial cost difference to the State, depending on whether the adjustment is made at the 86<sup>th</sup> or the 67<sup>th</sup> percentile benchmark. For example, the estimated added cost for the adjustment applied at the 86<sup>th</sup> percentile to Tier One costs is about \$21 million per year in the 2002-04 biennium. The estimated added cost for the adjustment at the 67<sup>th</sup> percentile is between \$110 and \$140 per year. The illustrative funding options in this report are based on the 86<sup>th</sup> percentile. However, the selection of this benchmark is a policy choice.

<b>Table 34</b> <b>Change in Composite Index Caused by Adding a Population Density Adjustment</b>			
<b>Division</b>	<b>Revised Composite Index (with Population Density Adjustment)</b>	<b>Current Composite Index</b>	<b>Change in Composite Index*</b>
<b>Top 10 Divisions in Which Composite Index Decreases Using 67<sup>th</sup> Percentile</b>			
Charlottesville	.4615	.5509	-0.0894
Richmond City	.3673	.4536	-0.0863
Fredericksburg	.6121	.6859	-0.0738
Lexington	.3845	.4578	-0.0733
Norfolk	.2147	.2763	-0.0616
Harrisonburg	.4958	.5493	-0.0535
Roanoke City	.3565	.4078	-0.0513
Fairfax County	.6664	.7171	-0.0507
Bristol	.3099	.3583	-0.0484
Colonial Heights	.4471	.4940	-0.0469
<b>Top 10 Divisions in Which Composite Index Decreases Using 86<sup>th</sup> Percentile</b>			
Charlottesville	.5174	.5509	-0.0335
Richmond City	.4292	.4536	-0.0244
Norfolk	.2533	.2763	-0.0230
Manassas Park	.3007	.3184	-0.0177
Lexington	.4426	.4578	-0.0152
Manassas	.4174	.4296	-0.0122
Portsmouth	.2120	.2225	-0.0105
Hampton	.2702	.2803	-0.0101
Fairfax County	.7094	.7171	-0.0077
Newport News	.2725	.2799	-0.0074
*A negative value means the composite index decreased. Source: JLARC staff analysis.			

### Options for Changes to the Composite Index

The population density factor is used in this study as a potential adjustment to the composite index. Some other options for making changes to the composite index were also considered for this review. These options included the following:

- The weights that are assigned to the tax bases in the composite index could be updated.
- For localities with composite index values that are higher when its average Adjusted Gross Income (AGI) per capita and per pupil is used

than when its median AGI is used, the composite index value for the locality could be based on an average of the two indices.

Regarding the weights assigned to the tax bases in the composite index, a concern that has been raised over the years is whether these weights should be updated to reflect the current proportion of total revenues that each tax base comprises. (Figure 10 shows the role of the weights in the composite index calculation).

**Figure 10**

### **Composite Index: Tax Base Weights**

**ADM Component =**

$$\downarrow .5 \left[ \frac{\frac{\text{Local True Values}}{\text{Local ADM}}}{\frac{\text{Total Statewide True Values}}{\text{State ADM}}} \right] + \downarrow .4 \left[ \frac{\frac{\text{AGI}}{\text{Local ADM}}}{\frac{\text{Total Statewide AGI}}{\text{Statewide ADM}}} \right] + \downarrow .1 \left[ \frac{\frac{\text{Local Taxable Retail Sales}}{\text{Local ADM}}}{\frac{\text{Total Statewide Taxable Retail Sales}}{\text{Statewide ADM}}} \right]$$

**Population Component =**

$$\downarrow .5 \left[ \frac{\frac{\text{Local True Values}}{\text{Local Population}}}{\frac{\text{Total Statewide True Values}}{\text{Statewide Population}}} \right] + \downarrow .4 \left[ \frac{\frac{\text{Local AGI}}{\text{Local Population}}}{\frac{\text{Total Statewide AGI}}{\text{Statewide Population}}} \right] + \downarrow .1 \left[ \frac{\frac{\text{Local Taxable Retail Sales}}{\text{Local Population}}}{\frac{\text{Total Statewide Taxable Retail Sales}}{\text{Statewide Population}}} \right]$$

**Local Composite Index =**

$$((.6667 \times \text{ADM Component}) + (.3333 \times \text{Population Component})) \times 0.45$$

Source: 1997-98 Superintendent's Annual Report for Virginia.

The current weights given to the real property, AGI, and taxable sales components of the composite index are 50 percent, 40 percent, and 10 percent, respectively. These were the proportions of total revenue derived from each tax base in the 1970s, when the composite index was developed. JLARC staff analyzed the proportion of total revenues that each of these tax bases comprises using FY 1997 data. (FY 1997 data was used because the composite index for FY 2000 uses 1997 data for most of the components; in addition, 1997 was the last year before the car tax repeal was implemented.) The localities used for this analysis operate school divisions.

This analysis found that real property, "other" revenue, and taxable sales comprised 44, 49, and 7 percent respectively of total revenue in 1997. The proportion of revenue derived from real property and taxable sales has decreased over time, while the proportion from "other" revenues has increased.

Table 35 shows the localities whose composite indexes would be most affected by a change in the tax base weights. Overall, the change in the local shares that is caused by using different weights ranges from one to four percent. Harrisonburg's local share decreases the most, and Poquoson's local share increases the most.

The main advantage to revising the weights in the composite index is that it makes the index more reflective of the current distribution of local revenue reliance among the tax bases. The primary disadvantage is that since income is used as a proxy for the "other revenue" component of the index, updating the weights of the composite to in part account for the greater reliance on other revenues increases the

Table 35			
Change in Composite Index Caused by Changing Tax Base Weights			
Division	Revised Composite Index (with 44/49/7 Weights)	Current Composite Index (with 50/40/10 Weights)	Change in Composite Index*
<b>Top 10 Divisions Where Composite Index Decreases</b>			
Harrisonburg	0.5094	0.5492	-0.0398
Louisa	0.6246	0.6624	-0.0378
Fredericksburg	0.6482	0.6859	-0.0377
Winchester	0.5299	0.5643	-0.0344
Colonial Heights	0.4614	0.4940	-0.0326
Norton	0.3189	0.3501	-0.0312
Galax	0.3091	0.3338	-0.0247
Highland	0.5265	0.5502	-0.0237
Northumberland	0.5990	0.6220	-0.0230
Emporia	0.3082	0.3299	-0.0217
<b>Top 10 Divisions Where Composite Index Increases</b>			
Poquoson	0.3545	0.3414	0.0131
Fairfax County	0.7291	0.7172	0.0119
Roanoke County	0.4376	0.4263	0.0113
Pittsylvania	0.2905	0.2805	0.0100
Prince George	0.2822	0.2724	0.0098
Powhatan	0.4119	0.4034	0.0085
Charles City	0.4132	0.4048	0.0084
Bedford County	0.4078	0.3996	0.0082
Botetourt	0.4221	0.4148	0.0073
Chesterfield	0.4121	0.4055	0.0066
*A positive value means that the division's composite index increased; a negative value means the composite index decreased.			
Source: JLARC staff analysis of DOE's current composite index and data from the Auditor of Public Accounts' <i>Comparative Report of Local Government Revenues and Expenditures, Year Ended June 30, 2000</i> .			

reliance in the index upon income as a proxy. Since localities cannot directly tax income, local officials have expressed concerns over the years about the use of income in the composite index.

Another concern that has been raised specifically regards the use of average Adjusted Gross Income (AGI) per ADM and per capita in the composite index. (Figure 11 specifically points out the "other" revenue component and the use of total AGI.) This is where AGI is used as a proxy for "other" revenues. There are two major concerns regarding the "other" revenue component. First, some believe that total AGI is skewed because there are some localities in which a large percentage of income comes from a relatively few wealthy individuals. Even assuming that income should be used as a proxy, it is argued, the average, in this case, may give a somewhat distorted view of the locality's ability to pay.

Figure 11

### Composite Index: "Other" Revenue Component

#### ADM Component =

$$.5 \left[ \frac{\frac{\text{Local True Values}}{\text{Local ADM}}}{\frac{\text{Total Statewide True Values}}{\text{State ADM}}} \right] + .4 \left[ \frac{\frac{\text{AGI}}{\text{Local ADM}}}{\frac{\text{Total Statewide AGI}}{\text{Statewide ADM}}} \right] + .1 \left[ \frac{\frac{\text{Local Taxable Retail Sales}}{\text{Local ADM}}}{\frac{\text{Total Statewide Taxable Retail Sales}}{\text{Statewide ADM}}} \right]$$

#### Population Component =

$$.5 \left[ \frac{\frac{\text{Local True Values}}{\text{Local Population}}}{\frac{\text{Total Statewide True Values}}{\text{Statewide Population}}} \right] + .4 \left[ \frac{\frac{\text{Local AGI}}{\text{Local Population}}}{\frac{\text{Total Statewide AGI}}{\text{Statewide Population}}} \right] + .1 \left[ \frac{\frac{\text{Local Taxable Retail Sales}}{\text{Local Population}}}{\frac{\text{Total Statewide Taxable Retail Sales}}{\text{Statewide Population}}} \right]$$

#### Local Composite Index =

$$((.6667 \times \text{ADM Component}) + (.3333 \times \text{Population Component})) \times 0.45$$

Source: 1997-98 Superintendent's Annual Report for Virginia.

In this skewed situation, median adjusted gross income may be a better indicator of ability to pay than the average. A JLARC staff correlation analysis found that AGI per capita has a substantially higher association overall with the actual collection of "other" revenues than does median adjusted gross income. This finding tends to argue against the substitution of average AGI in the composite index. However, some adjustment for localities with average AGIs that appear to be unduly impacted by skewed income distributions still may be appropriate. For example, in Chapter II of this report, it was noted that once a variety of factors are controlled for, including local revenue capacity, localities with higher percentages of



their population making \$100,000 and more were likely to provide fewer local education dollars than might otherwise be expected.

To address this issue, JLARC staff computed the composite index twice, once using total AGI as is the current practice, and once using median AGI. Then, in localities with higher composite index values using total AGI, the two indices were averaged. This approach provides the greatest adjustment to localities with the greatest upward skewness in their total AGI data. Table 36 shows the ten localities with the greatest decrease in their composite index values due to this change.

**Table 36**

**Top Ten Localities Benefiting from an Adjustment  
to the Composite Index to Address Total AGI Data  
That May Be Upwardly Skewed \***

Locality	Current Composite Index	Composite Index with Median AGI	Average of Two Indices	Change in Composite Index
Goochland	.8000	.6900	.7450	-0.0550
Fredericksburg	.6859	.6146	.6503	-0.0356
Charlottesville	.5509	.4862	.5186	-0.0323
Lancaster	.6395	.5812	.6104	-0.0291
Albemarle	.6339	.5831	.6085	-0.0254
Richmond City	.4536	.4088	.4312	-0.0224
Winchester	.5643	.5251	.5447	-0.0196
Rappahannock	.7130	.6753	.6942	-0.0188
James City	.6404	.6038	.6221	-0.0183
Fairfax County	.7172	.6833	.7003	-0.0169

\* This proposal is a downward adjustment in the index values for the eligible localities, and therefore increases the State's costs. The size of the increase depends upon the total amount of funding which is distributed based on the composite index; the estimated cost increase for this approach as applied to Tier One costs is about \$26 million per year in the 2002-2004 biennium. Under this proposal, no localities would have their index adjusted upward (no local shares increase).

Source: JLARC staff analysis of DOE and Department of Taxation data.

**A Longer-Term Issue: The Impact of State Car Tax Reimbursements  
on the Measurement of Local Ability to Pay**

One of the major "other" revenues for which AGI is used as a proxy is the personal property tax. The great majority of personal property tax revenues have been from the tax on cars (which is why the personal property tax is often referred to as the "car tax"). In FY 2000, the car tax comprised the largest proportion of the

“other” revenues component of the composite index (about 27 percent of this component).

In 1998, the State enacted the Personal Property Tax Relief Act (PPTRA), a tax relief program that is ultimately aimed at the elimination of the payment of the car tax by vehicle-owning local citizens. Instead of the past payment practice, the local tax (or the cost of local taxpayer relief from the tax) is paid by State taxpayers, through State Appropriations. The Governor’s 2001 Budget Bill provides \$572.4 million in FY 2001 and \$855.4 million in FY 2002 for personal property tax relief.

The reduction and eventual plan to eliminate the payment of this local tax by vehicle-owning local citizens was not predicated upon a reduction in locality services. Instead, the State costs to provide the tax relief have been met through growing State revenue collections or by cost containment and reductions in State programs. Local governments receive the amount of revenue from the State that they otherwise would have collected from vehicle-owning taxpayers, based on the car tax policies which they had in place as of August 1, 1997.

The implications of this approach for localities has at times been misunderstood, because the State payments to the localities have been seen by some as grants of State aid. Under that perspective, it can be noted that the localities that appear to be receiving the bulk of the car tax payments seem to also be wealthier localities. Therefore, the criticism has been raised that the car tax payments appear to be State aid based on the opposite of the typical premise about how State aid should relate to local ability to pay. This criticism is flawed, however, in the sense that these State payments are designed to hold localities harmless. Localities receiving the funds from the State are merely obtaining what they would have obtained from their vehicle-owning taxpayers.

However, there is a local ability-to-pay measurement problem that exists due to the State’s payment of the car tax based on local car tax policies from August 1, 1997. The problem has two parts. First, the basic premise behind local ability to pay measures is to examine the ability to pay of the different localities, based on the size of the tax bases of those localities, and with an equal level of local tax effort assumed from all. The composite index achieves this by only measuring the size of the tax bases, relative to pupils and population. (Revenue capacity, another measure of local ability to pay, achieves this by using statewide average tax rates). Due to the State’s assumption of the car tax that is due, there is no local tax effort expended to obtain these revenues (except for vehicles valued over \$20,000). Therefore, the amount of local effort exerted to obtain these revenues is the same – zero.

The second part of the issue, however, is that ability to pay measures assume that the amount of the funds that are locally obtained is proportional to the amount of local effort exerted. The fact that local effort for the car tax is slated to go to zero is not a problem – so long as the amount of the revenues derived from that effort is proportional to the size of each locality’s tax base (the value of the motor vehicles), and is independent of local effort considerations. However, the extent to which localities derive funds locally through the State pick-up of the car tax depends

upon the tax policies that they individually had in place at a given point in time. This is where the ability to pay measurement issue becomes critical.

For example, the first of two localities with equal abilities to pay and equal taxpayer income levels may have had car tax rates in place in 1997 which obtained revenues equal to an effective tax rate of \$3.88 per \$100 of value. The second locality may have had effective tax rates in place that were \$1.28 per \$100. For the same degree of local effort (again, for most vehicles, zero), the two localities receive dramatically different levels of revenue, based on their past levels of effort. The composite index, however, which proxies other revenues such as the car tax with local income levels, would assume that the localities with equal income levels and equal local effort levels are equal in their ability to derive revenue from this tax source.

If the State continues to make payments to localities to pay the car tax (or car tax relief) based on differing levels of local effort, then there will be a need to address this in the composite index. The issue can be addressed by separating out the personal property tax component from the other income component of the composite index, and determining local ability to pay from the personal property tax component based on the actual payments made by the State, rather than by using an income proxy. It had been hoped that this type of adjustment could have been made and presented as an illustrative option for this report. However, the current state of the data on locality reimbursements as well as the lengthy timeframes within which reimbursements may be requested means that there are no good data currently available to make this adjustment.

It should also be noted that revenue capacity, another indicator of local ability to pay which is calculated by the Commission on Local Government, will also be impacted by this problem. Based on the way in which revenue capacity works, the size of local tax collections from this revenue source will practically disappear (as it should under State policy), but the State's payment of this local tax (or local tax relief) to the localities which enhances their ability to pay will be invisible to the calculations.

The personal property relief program is a large program. To put the size of the program in perspective, the projected amount of locality reimbursement requests for FY 2002 is about \$897 million, and this does not yet entail 100 percent implementation of the program. This FY 2002 relief amount is about half of the size of the State's FY 2002 basic aid payment of \$1.8 billion, which is the State's largest SOQ funding account. Therefore, how the composite index addresses (or does not address) State payments of the local car tax is a significant issue.

## **Conclusion**

The adjustments to the composite index described above were made separately to illustrate the impact of each individual adjustment. JLARC staff then made all three adjustments simultaneously to create a final revised composite index. The three adjustments are: updating the tax base weights, using median AGI in-

stead of total AGI, and applying a population density adjustment. Table 37 shows the changes that would result from making these cumulative changes to the current composite index. A recommendation for measuring local ability to pay follows.

***Recommendation (22).*** The General Assembly may wish to consider adjusting the current composite index to: (1) provide for a population density adjustment, (2) update the relative weights that are given to the real property, sales tax, and other revenue components, and (3) use the average of composite index values calculated using total AGI and median AGI, in instances where the use of median AGI would decrease the locality's composite index measure. In addition, if the State continues to pay the local personal property tax, the General Assembly may wish to consider how the composite index could be improved to better address this aspect of local ability to pay.

[Note: Chapter text continues on page 144]

<b>Table 37</b> <b>Change in the FY 2000-2002 Composite Index: Updating the Weights, Using Median AGI, and Adding a Population Density Adjustment</b>							
Division	Current Composite Index (Capped)	Revised CI with Updated Weights (Capped)	Adjustments to the Revised Composite Index				Difference Between Adjusted and Current Composite Indexes ****
			Adjustment 1: Median AGI (Capped) *	Adjustment 2: Average of Adjustment 1 and the Revised CI (Capped) **	Adjustment 3: Population Density (Capped) ***	Revised Composite Index Using All 3 Adjustments (Capped)	
Accomack	.3151	.3068	N/A	N/A	N/A	.3068	-.0083
Albemarle	.6339	.6371	.5748	.6060	N/A	.6060	-.0280
Amelia	.3500	.3486	N/A	N/A	N/A	.3486	-.0014
Amherst	.3182	.3187	N/A	N/A	N/A	.3187	.0005
Appomattox	.3121	.3103	N/A	N/A	N/A	.3103	-.0018
Arlington	.8000	.8000	N/A	N/A	.8000	.8000	.0000
Augusta	.3638	.3657	N/A	N/A	N/A	.3657	.0019
Bath	.8000	.8000	N/A	N/A	N/A	.8000	.0000
Bedford County	.3996	.4078	N/A	N/A	N/A	.4078	.0082
Bland	.2748	.2782	N/A	N/A	N/A	.2782	.0034
Botetourt	.4148	.4221	N/A	N/A	N/A	.4221	.0073
Brunswick	.2822	.2795	N/A	N/A	N/A	.2795	-.0027
Buchanan	.2572	.2544	N/A	N/A	N/A	.2544	-.0028
Buckingham	.2693	.2670	N/A	N/A	N/A	.2670	-.0023
Campbell	.3055	.3100	N/A	N/A	N/A	.3100	.0045
Caroline	.3169	.3181	N/A	N/A	N/A	.3181	.0012
Carroll	.2952	.2948	N/A	N/A	N/A	.2948	-.0004
Charles City	.4048	.4132	.4017	.4075	N/A	.4075	.0026
Charlotte	.2469	.2453	N/A	N/A	N/A	.2453	-.0016
Chesterfield	.4055	.4121	N/A	N/A	N/A	.4121	.0066
Clarke	.5169	.5154	N/A	N/A	N/A	.5154	-.0015
Craig	.3416	.3459	N/A	N/A	N/A	.3459	.0043
Culpeper	.3999	.3931	N/A	N/A	N/A	.3931	-.0068
Cumberland	.3394	.3336	N/A	N/A	N/A	.3336	-.0058
Dickenson	.2358	.2310	N/A	N/A	N/A	.2310	-.0048
Dinwiddie	.2940	.2982	N/A	N/A	N/A	.2982	.0042
Essex	.4529	.4329	N/A	N/A	N/A	.4329	-.0200
Fairfax County	.7172	.7291	.6876	.7084	.7008	.7008	-.0164
Fauquier	.6115	.6176	.6063	.6120	N/A	.6120	.0004
Floyd	.3496	.3479	N/A	N/A	N/A	.3479	-.0017
Fluvanna	.3817	.3835	N/A	N/A	N/A	.3835	.0018
Franklin County	.3923	.3894	N/A	N/A	N/A	.3894	-.0029
Frederick	.3841	.3858	N/A	N/A	N/A	.3858	.0017
Giles	.3183	.3183	N/A	N/A	N/A	.3183	.0000
Gloucester	.3255	.3241	N/A	N/A	N/A	.3241	-.0014
Goochland	.8000	.8000	.6729	.7365	N/A	.7365	-.0636
Grayson	.2860	.2883	N/A	N/A	N/A	.2883	.0023
Greene	.3268	.3305	N/A	N/A	N/A	.3305	.0037
Greensville	.2483	.2467	N/A	N/A	N/A	.2467	-.0016
Halifax	.3870	.3726	N/A	N/A	N/A	.3726	-.0144
Hanover	.4693	.4692	N/A	N/A	N/A	.4692	-.0001
Henrico	.5214	.5214	.4927	.5071	N/A	.5071	-.0144
Henry	.3069	.3107	.3089	.3098	N/A	.3098	.0029
Highland	.5502	.5265	.5201	.5233	N/A	.5233	-.0269
Isle Of Wight	.3749	.3747	N/A	N/A	N/A	.3747	-.0002

<b>Table 37 (continued)</b> <b>Change in the FY 2000-2002 Composite Index: Updating the Weights, Using Median AGI, and Adding a Population Density Adjustment</b>							
Division	Current Composite Index (Capped)	Revised CI with Updated Weights (Capped)	Adjustments to the Revised Composite Index				Difference Between Adjusted and Current Composite Indexes ****
			Adjustment 1: Median AGI (Capped) *	Adjustment 2: Average of Adjustment 1 and the Re- vised CI (Capped) **	Adjustment 3 Population Density (Capped) ***	Revised Composite Index Using All 3 Adjustments (Capped)	
James City	.6404	.6346	.5897	.6122	N/A	.6122	-.0283
King George	.3538	.3595	N/A	N/A	N/A	.3595	.0057
King And Queen	.4020	.4012	N/A	N/A	N/A	.4012	-.0008
King William	.3662	.3698	N/A	N/A	N/A	.3698	.0036
Lancaster	.6395	.6179	.5466	.5823	N/A	.5823	-.0573
Lee	.1885	.1893	N/A	N/A	N/A	.1893	.0008
Loudoun	.6571	.6626	N/A	N/A	N/A	.6626	.0055
Louisa	.6624	.6246	N/A	N/A	N/A	.6246	-.0378
Lunenburg	.2448	.2444	N/A	N/A	N/A	.2444	-.0004
Madison	.4005	.3964	N/A	N/A	N/A	.3964	-.0041
Mathews	.4798	.4723	N/A	N/A	N/A	.4723	-.0075
Mecklenburg	.3346	.3252	N/A	N/A	N/A	.3252	-.0094
Middlesex	.5658	.5446	.5264	.5355	N/A	.5355	-.0303
Montgomery	.3812	.3797	.3735	.3766	N/A	.3766	-.0046
Nelson	.5036	.4898	N/A	N/A	N/A	.4898	-.0138
New Kent	.4230	.4288	N/A	N/A	N/A	.4288	.0058
Northampton	.3230	.3091	N/A	N/A	N/A	.3091	-.0139
Northumberland	.6220	.5990	.5613	.5802	N/A	.5802	-.0419
Nottoway	.2584	.2572	N/A	N/A	N/A	.2572	-.0012
Orange	.4294	.4274	N/A	N/A	N/A	.4274	-.0020
Page	.3088	.3084	N/A	N/A	N/A	.3084	-.0004
Patrick	.2993	.3009	N/A	N/A	N/A	.3009	.0016
Pittsylvania	.2805	.2905	N/A	N/A	N/A	.2905	.0100
Powhatan	.4034	.4119	N/A	N/A	N/A	.4119	.0085
Prince Edward	.3261	.3117	N/A	N/A	N/A	.3117	-.0144
Prince George	.2724	.2822	N/A	N/A	N/A	.2822	.0098
Prince William	.4031	.4047	N/A	N/A	N/A	.4047	.0016
Pulaski	.3257	.3263	N/A	N/A	N/A	.3263	.0006
Rappahannock	.7130	.6961	.6500	.6731	N/A	.6731	-.0399
Richmond County	.3476	.3360	N/A	N/A	N/A	.3360	-.0116
Roanoke County	.4263	.4376	.4369	.4373	N/A	.4373	.0110
Rockbridge	.4232	.4112	N/A	N/A	N/A	.4112	-.0120
Rockingham	.3674	.3707	N/A	N/A	N/A	.3707	.0033
Russell	.2705	.2694	N/A	N/A	N/A	.2694	-.0011
Scott	.2298	.2318	N/A	N/A	N/A	.2318	.0020
Shenandoah	.3908	.3839	N/A	N/A	N/A	.3839	-.0069
Smyth	.2625	.2630	N/A	N/A	N/A	.2630	.0005
Southampton	.3093	.3110	N/A	N/A	N/A	.3110	.0017
Spotsylvania	.3692	.3672	N/A	N/A	N/A	.3672	-.0020
Stafford	.3429	.3492	N/A	N/A	N/A	.3492	.0063
Surry	.8000	.8000	N/A	N/A	N/A	.8000	.0000
Sussex	.3229	.3196	N/A	N/A	N/A	.3196	-.0033
Tazewell	.2753	.2724	N/A	N/A	N/A	.2724	-.0029
Warren	.3951	.3948	N/A	N/A	N/A	.3948	-.0003
Washington	.3531	.3510	N/A	N/A	N/A	.3510	-.0021

<b>Table 37 (continued)</b> <b>Change in the FY 2000-2002 Composite Index: Updating the Weights, Using Median AGI, and Adding a Population Density Adjustment</b>							
Division	Current Composite Index (Capped)	Revised CI with Updated Weights (Capped)	Adjustments to the Revised Composite Index				Difference Between Adjusted and Cur- rent Com- posite In- dexes ****
			Adjustment 1: Median AGI (Capped) *	Adjustment 2: Average of Adjustment 1 and the Re- vised CI (Capped) **	Adjustment 3 Popula- tion Den- sity (Capped) ***	Revised Composite Index Using All 3 Ad- justments (Capped)	
Westmoreland	.3909	.3818	N/A	N/A	N/A	.3818	-.0091
Wise	.2237	.2240	N/A	N/A	N/A	.2240	.0003
Wythe	.3282	.3221	N/A	N/A	N/A	.3221	-.0061
York	.3881	.3851	N/A	N/A	N/A	.3851	-.0030
Alleghany	.3354	.3399	N/A	N/A	N/A	.3399	.0045
Alexandria	.8000	.8000	N/A	N/A	.8000	.8000	.0000
Bristol	.3583	.3435	N/A	N/A	N/A	.3435	-.0148
Buena Vista	.2518	.2556	N/A	N/A	N/A	.2556	.0038
Charlottesville	.5509	.5337	.4545	.4941	.4641	.4641	-.0868
Clifton Forge	.2423	.2470	N/A	N/A	N/A	.2470	.0047
Colonial Heights	.4940	.4614	N/A	N/A	.4568	.4568	-.0372
Covington	.3358	.3233	N/A	N/A	N/A	.3233	-.0125
Danville	.3036	.2963	N/A	N/A	N/A	.2963	-.0073
Falls Church	.8000	.8000	N/A	N/A	.8000	.8000	.0000
Fredericksburg	.6859	.6482	.5608	.6045	N/A	.6045	-.0814
Galax	.3338	.3091	N/A	N/A	N/A	.3091	-.0247
Hampton	.2802	.2760	N/A	N/A	.2661	.2661	-.0141
Harrisonburg	.5492	.5094	.4860	.4977	.4921	.4921	-.0571
Hopewell	.2674	.2644	N/A	N/A	.2610	.2610	-.0064
Lynchburg	.3901	.3801	.3600	.3701	N/A	.3701	-.0201
Martinsville	.3210	.3191	.2992	.3092	N/A	.3092	-.0119
Newport News	.2798	.2776	N/A	N/A	.2703	.2703	-.0095
Norfolk	.2762	.2693	N/A	N/A	.2469	.2469	-.0293
Norton	.3501	.3189	N/A	N/A	N/A	.3189	-.0312
Petersburg	.2240	.2234	N/A	N/A	N/A	.2234	-.0006
Portsmouth	.2225	.2245	N/A	N/A	.2139	.2139	-.0086
Radford	.3313	.3327	.3315	.3321	N/A	.3321	.0008
Richmond City	.4536	.4507	.3958	.4233	.4005	.4005	-.0531
Roanoke City	.4078	.3927	.3711	.3819	.3774	.3774	-.0304
Staunton	.4132	.4026	.3858	.3942	N/A	.3942	-.0190
Suffolk	.3229	.3248	N/A	N/A	N/A	.3248	.0019
Virginia Beach	.3522	.3528	N/A	N/A	N/A	.3528	.0006
Waynesboro	.3730	.3642	N/A	N/A	N/A	.3642	-.0088
Williamsburg	.8000	.8000	N/A	N/A	N/A	.8000	.0000
Winchester	.5643	.5299	.4818	.5059	.4996	.4996	-.0647
Fairfax City	.8000	.8000	N/A	N/A	.8000	.8000	.0000
Franklin City	.2973	.2953	N/A	N/A	N/A	.2953	-.0020
Chesapeake	.3517	.3463	N/A	N/A	N/A	.3463	-.0054
Lexington	.4578	.4510	.4162	.4336	.4192	.4192	-.0386
Emporia	.3299	.3082	N/A	N/A	N/A	.3082	-.0217
Salem	.4370	.4243	N/A	N/A	N/A	.4243	-.0127
Bedford City	.3359	.3216	N/A	N/A	N/A	.3216	-.0143
Poquoson	.3414	.3545	N/A	N/A	N/A	.3545	.0131
Manassas	.4296	.4339	N/A	N/A	.4216	.4216	-.0080

Manassas Park	.3184	.3184	N/A	N/A	.3007	.3007	-.0177
Colonial Beach	.3020	.2964	N/A	N/A	N/A	.2964	-.0056
West Point	.3202	.3219	N/A	N/A	N/A	.3219	.0017

\* Median AGI Data is not available for towns, therefore this adjustment was not made for Colonial Beach or West Point.

\*\* Adjustment 2 was performed only for those localities in which Adjustment 1 resulted in a lower CI than the Revised CI

\*\*\* Adjustment 3 was made only to those localities in the 86th percentile.

\*\*\*\* A positive value means that the division's local share increased; a negative value means the local share decreased.

Source: JLARC staff analysis.

## THE FREQUENCY OF USE OF THE LOCAL ABILITY TO PAY MEASURE

The State uses its measure of local ability, the composite index, to allocate the majority of State funds to localities. In FY 2001, for example, 76.1 percent of the State funds for elementary and secondary education were distributed using the composite index. The composite index therefore has a strong impact on the variations between localities in the per-pupil funding that is received from the State.

Table 38, for example, shows the five localities with the lowest composite index values, and the five localities with the highest composite index values, in Virginia in FY 2000. As might be expected, the table indicates that the State per pupil amounts are significantly higher for low composite index localities than for those localities with the highest composite indices. Depending on which localities in the table are compared, State funding per-pupil (excluding sales tax) in the low composite index localities is between 2.74 and 4.49 times as great as in the high composite index localities.

The single major State-appropriated account that is not equalized (distributed based on local ability to pay) is the State sales tax. The table with the high and low composite index localities shows how the State sales tax distribution does not have the similar effect as other State aid of providing more State aid to localities with low ability to pay. The State sales tax revenues received by the high composite index localities are generally about equal to, and in a few instances exceed, the Sales tax revenues received by the low composite index localities.

As was indicated in the JLARC SOQ I and SOQ II reports from the mid-1980s, greater use of an ability-to-pay measure in State education funding promotes tax equity, by reducing the extent to which poorer localities must utilize their own tax base in order to provide the required minimum program. Thus, to continue promoting tax equity among localities, the State should continue disbursing funds based on a measure of local ability-to-pay.







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## VI. Illustrative Funding Options

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The funding option framework developed for this study uses the current procedures in Virginia for determining State and local share responsibilities, as the base assumption for the illustrative options which are presented. The options framework and five illustrative cost options are discussed in the chapter. Statewide summary results for the options are provided in Appendix C.

Each of the five illustrative cost options is presented with three different approaches regarding State and local cost share responsibility. The first approach, as mentioned, is an execution of the State's current base assumptions regarding State and local shares. The second approach varies the current approach somewhat by using a population density adjustment to the composite index, to take into account the reduction in the ability to pay for education which may be experienced by localities facing greater demand for the application of locality resources for non-education purposes. This adjustment decreases the measured local ability to pay for some localities, thereby increasing the State's share above 55 percent and adding about \$17 million per year to State costs in the 2002-2004 biennium. The third approach applies the population density adjustment, and also does the following: updates the weights given to the major local tax bases in the composite index, and provides an adjustment to the income proxy that is used in the composite index for localities with skewed average adjusted gross income levels.

### OVERVIEW OF OPTIONS

As previously noted, an appendix to the report contains illustrative funding options based on the analysis and findings from this review. For each option, the appendix provides data on the statewide impacts. Locality-by-locality impacts are available on the JLARC web site or by request.

The appendix contains five different sets of cost options for potential use in funding. Each of the five sets reflect differing assumptions about education costs. The sets illustrate the difference that the State's cost recognition practices make upon the funding of school division costs. The upper portion of Table 39 summarizes the five sets of cost options at a broad level.

Three different variations of each cost option are shown in the appendix, creating a total of 15 option tables. The three variations for each cost set recognize different assumptions about the measurement of local ability to pay. The ability-to-pay variations are shown in the lower portion of Table 39.

The data contained in the appendix tables are "preliminary" and illustrative. In estimating education costs, the results are sensitive to changes in many fac-

Table 39		
Overview of JLARC Illustrative Funding Options		
Option	Cost Recognition Tier(s) Used (see Chapter IV)	Assumptions
The Six Illustrative Cost Options		
1. Meeting SOQ Costs	Tier One	Implements the SOQ cost estimate adjustments described in Chapter II
2. Updated View of SOQ Requirements	Tier One and Tier Two, With a Relationship to Current State Standards	Option 1, plus prevailing levels of elementary resource teachers and 21 to one pupil-teacher ratio at secondary level.
3. Enhanced Instructional Staffing Levels, and More At-Risk Pre-School	Tier One and Tier Two	Option 2, plus the use of class size maximums already realized by to create an alternative set of maximum class size and division-wide pupil teacher ratios, and other instructional staffing enhancements. More costs recognized for pre-school programs as discussed in Chapter IV.
4. Prevailing Debt Service	Tiers One, Two, and Three	Option 3, plus State pays 50 percent aggregate share of prevailing debt service costs.
5. An Approach to Teacher Salaries to Recognize Costs Beyond the Linear Weighted Average	Tiers One, Two, and Three	State pays share of linear weighted average as floor and pays share up to statewide average as ceiling for divisions going beyond linear weighted average
Three Local Ability-to-Pay Alternatives Shown for Each Cost Option		
1. Options 1 to 5: Use of the current composite index, without adjustments.		
2. Options 6 to 10: Use of the composite index and a population density adjustment.		
3. Options 11 to 15: Use of the composite index and a population density adjustment, with changes to the composite index addressed in Recommendation 22 of the report (specifically, updating the weights assigned to the tax bases, and using an average of total and median AGI where it decreases the composite index value).		
Source: JLARC staff summary of report options contained in Appendix C.		

tors, such as pupil membership projections, sales tax revenue projections, composite index values, and the identification of data problems for particular localities in State agency data bases. In all of the options, State sales tax levels are assumed to remain at FY 2002 levels. Also, State funding levels for non-SOQ programs which are not addressed by the selected option are assumed to remain at FY 2002 levels.

The statewide summary sheets in Appendix C each consist of two tables. The first table shows the total SOQ and non-SOQ costs that are entailed under the option, without regard to State and local responsibility. Three sub-totals are provided in the option that lead to the calculation of the total costs of the option. These sub-totals are:

- (1) the estimated total for current SOQ costs – this is the cost for the Standards Quality, based on the assumptions that are specified for that calculation. In all options included in the report, the cost assumptions described in Chapter II of the report are used to calculate SOQ costs, so this sub-total does not change throughout the options;
- (2) the operating cost of initiatives exceeding current SOQ – for most of the options, this is the key item to examine in Table 1 to determine the difference in cost that the assumption makes. This row in the table calculates the total cost that the use of the cost assumptions in this option adds, beyond the full SOQ funding option (beyond Option 1).
- (3) estimated total non-SOQ costs (State and local) – in Options 2 and 3, this row is the same as in Option 1. However, Option 4 brings a change to this amount. The non-SOQ costs for school construction and at-risk four year olds are increased to account for the State paying a 50 percent share of prevailing per-pupil debt service costs, and paying more for at-risk four-year old pre-school programs, as described in Chapter IV.

The second table of the summary sheet shows the costs of the option, once those costs are apportioned to the State and local governments. On average, the options have the State pay about 55 percent of the SOQ costs of the option, based on the composite index, after sales tax is subtracted (locally-generated revenues are not subtracted in any of the options). However, exceptions to this are that for prevailing debt service costs, a 50 percent State share is used, and for the options that use a population density adjustment, the State share goes up. This is because the population density adjustment decreases the composite index values for localities with high population densities. It is applied such that it does not increase the composite index value and the local share paid by any locality.

Tables showing locality results are available upon request, and show estimated cost outcomes, and cost responsibility outcomes, by school division. The first set of three pages shows the costs in FY 2003, while the second set of three pages shows the costs in FY 2004.



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## Appendixes

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	<u>Page</u>
<b>Appendix A: State Support for Technology.....</b>	<b>A-1</b>
<b>Appendix B: Local Non-SOQ Operating Expenditures.....</b>	<b>B-1</b>
<b>Appendix C: Illustrative Funding Options.....</b>	<b>C-1</b>
<b>Appendix D: State Board of Education's Response .....</b>	<b>D-1</b>

## **Appendix A**

### **State Support for Technology**

DOE collected data on technology expenditures on a supplemental Schedule H for the 1999-2000 Annual School Report. These data were available to JLARC staff during the time of this review. Based on the data reported, school divisions spent a total of \$365.5 million during that fiscal year on technology, excluding debt service costs.

The State's calculation of basic aid funding covers some technology costs. Technology costs are included to the extent that these costs are reported by school divisions on the Annual School Report in cost categories recognized as "support costs" by the Department of Education. This was the State's approach to technology costs through basic aid prior to the JLARC review of education funding in the mid-1980s, and it remained the State's basic aid approach following the JLARC review (the one change made by the JLARC review that applied to all support costs was the use of the linear weighted average to estimate prevailing costs).

To the extent that the costs reported by school divisions are for technology instructional personnel, the costs are not captured in basic aid funding except insofar as those positions can be provided as part of 51 instructional positions per 1,000 pupils. The State Board of Education, prior to and since the time of the JLARC review in the mid-1980s, has not developed quantified standards addressing technology-related staffing or resource needs which can be applied in the SOQ instructional position or support cost calculations. Also, to the extent that technology costs are reported as capital costs, the costs are not captured in the basic aid calculations because all capital costs are excluded from State basic aid costs.

This appendix describes the availability of State support for technology in more detail than could be provided in the report. First, various State funding sources, including but not limited to basic aid, are enumerated. Second, the issue of when technology costs are picked up by the SOQ prevailing cost methodology is addressed. Finally, the collection of technology data for 2000-2001 is discussed.

#### **State Support for Technology**

There are a variety of ways in which the State provides funding to localities to support technology in public schools. The State provides Educational Technology Payments through the Literary Fund, and starting in FY 2002, the State began a new Technology Support Payments program. The State also provides funds to support technology through the Standards of Quality.

The Educational Technology Payments and the Technology Support payments are designated specifically to help support school divisions' technology needs. During the 2000-2002 biennium, the State provided \$115 million in Educational Technology Payments. Under the Educational Technology Payments



program, the State provides debt service payments for education technology grants, which are conducted through the Virginia Public School Authority. The Literary Fund is the source of funds for these debt service payments.

Chapter 1073 (the 2000-2002 Appropriation Act) specifies the authorized use of the proceeds for the VPSA issuance. As specified by the act, proceeds from the Educational Technology Payments program may be used to retrofit and upgrade existing school buildings to efficiently use educational technology, provide network-ready multimedia microcomputers for every classroom, provide a 5 to 1 ratio of pupils to network-ready microcomputers, and replace administrative and student management and information systems supporting data requirements associated with the Standards of Accreditation. Funds are also provided to reach the State's goals of providing Internet-ready local area network capability and Network Virginia, or web equivalent access, to the Internet in each high school.

The \$5 million in Technology Support Payments, newly available in FY 2002, address school divisions' concerns regarding the need for adequate technology support personnel. The Technology Support Payments are provided for on-site support for the Standards of Learning Technology Initiative. (The Standards of Learning Technology Initiative, which receives funding through the Educational Technology Payments program, includes the goals of: 1) providing a ratio of one computer for every five students, 2) creating internet-ready local area network capability in every school, and 3) assuring high-speed, high-bandwidth capabilities for instructional, remedial, and testing needs.) The Technology Support Payments may be used either to employ technology resource assistants to provide technology support or to contract for on-site technology support services.

In addition to the State's technology-specific funding initiatives, the State provides funding for technology through the Standards of Quality. The State has not developed quantified technology standards to include in the Standards of Quality funding methodology (although recent amendments to the SOQ have required the Board of Education to do so). However, to the extent that divisions have reported technology costs in ASR cost categories that are included in DOE's current linear weighted average calculations of prevailing costs, then the State has implicitly provided SOQ funding for technology. Thus, the amount of funding which the State has provided for technology through the SOQ depends in large part on where school divisions have reported these costs in the ASR.

### **Assessment of Situations in which the State Picks Up Technology Costs in the SOQ**

Schedule H from DOE's 1999-2000 ASR data collection effort includes numerous new technology-specific ASR codes. This enables the State to determine how much localities are expending on technology. However, these costs are embedded in various cost codes of the traditional ASR, which are the cost codes DOE uses to calculate prevailing costs. Therefore, it still is not possible to state exactly how much technology funding has been provided through the SOQ; although it is possible to determine situations in which technology costs are picked up through the SOQ prevailing cost methodology. The table on the next page crosswalks the new

technology codes from Schedule H to existing ASR codes and indicates whether the costs would be picked up in various prevailing cost calculations. (Costs reported on schedule H under existing ASR codes would be treated as all other reported expenditures in that cost category, for purposes of calculating prevailing costs).

***Non-personnel Costs.*** For most of the non-personnel costs, it appears that these costs would have largely been picked up in DOE's prevailing cost calculations. The main exception would be any technology costs that were coded as capital outlay additions, since no capital outlay addition costs are included in DOE's prevailing calculations.

***Personnel Costs.*** Depending on how divisions reported their technology personnel costs, these costs or may not have been included in the prevailing cost calculations. Positions coded as either instructional technical staff or instructional computer specialists would not have been included in the instructional salary or instructional support calculations. Also, any technology position costs reported under the administration personnel function codes would not have been included in the prevailing support calculations, since none of the administration personnel costs are included in DOE's prevailing cost calculations.

### **Collection of 2000-2001 Technology Data**

For the 2000-2001 ASR, DOE created a new set of functional codes (68100 through 68900) specifically for technology. These functional codes include both technology specific object codes, which are only used with the 68100 through 68900 function codes, and existing ASR object codes, which are used throughout the rest of the ASR. As a result of the addition of these new function codes, DOE needs to modify its prevailing cost calculations to ensure that State support for technology is not diminished due to a change in the reporting structure of technology expenditures.

## Technology Costs Report on Schedule H and Current Prevailing Cost Calculations

New Technology Object Codes	Possible ASR Reporting Locations		Included in Current Calculations of Prevailing Costs?
	Function	Object	
Non-Personnel Costs			
5001 (Telecommunications)	64000 (Operations & Maintenance)	5200 (Communications)	Yes
6040 (Technology Software/On-line Content)	61100 (Classroom Instruction, cc 2 &3)	6000 (Other Materials & Supplies), 6030 (Instructional Materials)	Yes
	61310 (Improvement of Instruction, cc 2&3), 61210 (Guidance Services, cc 2&3), 61320 (Media Services, cc 2&3)	6000 (Other Materials & Supplies)	Yes
	62200 (Attendance & Health), 62100 (Administration)	6000 (Other Materials & Supplies)	Yes
8300 (Technology Hardware)	61100 (Classroom Instruction, cc 2&3), 61310 (Improvement of Instruction, cc 2&3), 61210 (Guidance Services, cc 2&3), 61320 (Media Services, cc 2&3)	6000 (Other Materials & Supplies), 8100 (Capital Outlay Replacement)	Yes
	62200 (Attendance & Health), 62100 (Administration)	6000 (Other Materials & Supplies), 8100 (Capital Outlay Replacement)	Yes
	Any Functional Code	8200 (Capital Outlay Additions)	No (Capital Outlay Additions are not picked up in the calculations)
8400 (Technology Infrastructure)	66200 (Site Improvements), 66600 (Building Improvements)	5800 (Misc.), 6000 (Other Materials & Supplies)	Yes
	66000 (Facilities)	8100 (Capital Outlay Replacement), 8200 (Capital Outlay Additions)	No (Capital Outlay Replacement and Additions are not picked up in the Facilities calculations)
Personnel Costs			
1200-Technology Instructional	61100 (Classroom Instruction, cc 2&3), 61320 (Media Services, cc 2&3)	1120 (Instructional Salaries & Wages), 1122 (Librarian Salaries & Wages), 1620 (Supplement Salaries & Wages)	Yes
	61100 (Classroom Instruction, cc 2&3)	1152 (Technical/Computer specialist salaries & wages)	No (Technical/computer specialists are not included in instructional salary or support position calculations)
	61310 (Improvement of Instruction, cc 2&3)	1120 (Instructional Salaries & Wages)	Yes
1210-Technology Administrative	61310 (Improvement of Instruction, cc 2&3), 61320 (Media Services, cc 2&3)	1110 (Administrative Salaries & Wages), 1120 (Instructional Salaries & Wages)	Yes

	62100 (Administration)	All Object Codes	<b>No</b> (Administrative positions are not picked up in the support calculations)
<i>1220-Technology, Technical Development</i>	All instructional support function codes	1140-Technical Salaries & Wages	<b>No</b> (ASR instructions require that computer specialists be reported in cc 9. Calculations for instructional support positions only include cc 2 &3.)
	64000 (Operations & Maintenance)	1140-Technical Salaries & Wages	Yes
	62100 (Administration)	1140-Technical Salaries & Wages	<b>No</b> (Administrative positions are not picked up in the support calculations)
<i>1230-Technology, Technical Support</i>	All instructional support function codes	1140-Technical Salaries & Wages	<b>No</b> (ASR instructions require that computer specialists be reported in cc 9. Calculations for instructional positions only include cc 2 &3.)
	64000 (Operations & Maintenance)	1140-Technical Salaries & Wages	Yes
	62100 (Administration)	1140-Technical Salaries & Wages	<b>No</b> (Administrative positions are not picked up in the support calculations)
<i>1240-Technology, Clerical</i>	61310 (Improvement Clerical, cc 2&3), 61320 (Media Clerical, cc 2&3)	1150-Clerical salaries & Wages	Yes
	62100 (Administration Clerical)	1150-Clerical salaries & Wages	<b>No</b> (Administrative positions are not picked up in the support calculations)

## Appendix B

### Local Non-SOQ Operating Expenditures

As discussed in Chapter III, JLARC staff analyzed the operational expenditures of 131 school divisions. Expenditures made by regional programs on behalf of their participating school divisions were pro-rated back to the divisions. (The local expenditures may be somewhat conservative. Due to data limitations, some State and federal funds for non-regular day school programs, non-LEA programs, and facility costs may not have been backed out of total operational expenditures, which could serve to reduce the calculation of local operating costs, in some cases). Among the 128 localities that made local non-SOQ operating expenditures, there was a substantial degree of variation around the \$1,239 per-pupil statewide average amount of these expenditures in FY 2000. The amount of local non-SOQ funding ranged from zero to \$6,162 on a per-pupil basis.

The appendix table presents the localities with the lowest and highest local non-SOQ operational expenditures relative to the size of their required match for the SOQ in FY 2000. The measure used assesses the level of local expenditure or “aspiration” to go beyond SOQ costs, taking into account ability to pay. A locality with greater ability to pay as measured by the State (using a measure called the composite index) is responsible for paying a higher share of its SOQ cost; whereas a locality with a lesser measured local ability to pay is responsible for paying a lesser share. Therefore, a measure relating the size of local non-SOQ costs to local SOQ costs is one way to take the State’s measure of local ability to pay into account.

Estimated Local Non-SOQ Operating Expenditures as a Percent of Required Local SOQ Expenditures					
School Division	Required Local SOQ Operating Expenditures (Local Match)	Estimated Local Non-SOQ Operating Expenditures in Total	Estimated Local Non-SOQ Operating Expenditures Per-Pupil	Local Non-SOQ as a Percent of Required Local SOQ Expenditures (Local Effort)	Uncapped 2000 – 2002 Composite Index
Highland County	\$919,624	\$0	\$0.00	0.00%	.5502
Lee County	\$2,289,839	\$0	\$0.00	0.00%	.1886
Petersburg City	\$4,738,114	\$0	\$0.00	0.00%	.2240
Colonial Beach Town	\$696,404	\$10,154	\$17.09	1.46%	.3020
Pittsylvania County	\$9,676,614	\$1,412,794	\$153.70	14.60%	.2805
Page County	\$4,455,044	\$836,297	\$232.18	18.77%	.3088
Greensville/Emporia	\$2,829,529	\$547,670	\$207.53	19.36%	.2770
Mecklenburg County	\$6,444,999	\$1,256,729	\$254.76	19.50%	.3346
Bland County	\$1,106,439	\$223,687	\$246.89	20.22%	.2748
Westmoreland County	\$2,995,309	\$609,411	\$297.71	20.35%	.3909
Buckingham County	\$2,553,940	\$549,798	\$248.22	21.53%	.2694
Portsmouth City	\$14,833,363	\$3,231,358	\$187.53	21.78%	.2225
Galax City	\$1,704,524	\$379,303	\$292.00	22.25%	.3338
Dinwiddie County	\$4,743,526	\$1,061,149	\$250.27	22.37%	.2940
Scott County	\$3,164,745	\$743,153	\$201.83	23.48%	.2298

Estimated Local Non-SOQ Operating Expenditures as a Percent of Required Local SOQ Expenditures (cont.)

School Division	Required Local SOQ Operating Expenditures (Local Match)	Estimated Local Non- SOQ Operating Expenditures in Total	Estimated Local Non- SOQ Operating Expenditures Per-Pupil	Local Non- SOQ as a Percent of Required Local SOQ Expenditures (Local Effort)	Uncapped 2000 – 2002 Composite Index
Mathews County	\$2,494,601	\$686,204	\$533.60	27.51%	.4798
Floyd County	\$2,609,691	\$723,097	\$378.78	27.71%	.3496
Middlesex County	\$3,220,126	\$911,222	\$670.02	28.30%	.5658
Prince Edward County	\$3,005,865	\$856,727	\$326.00	28.50%	.3261
Smyth County	\$5,221,628	\$1,593,300	\$305.87	30.51%	.2625
Amherst County	\$5,489,430	\$1,773,025	\$384.27	32.30%	.3182
Caroline County	\$4,704,645	\$1,533,976	\$410.48	32.61%	.3169
Wythe County	\$5,201,337	\$1,701,960	\$391.71	32.72%	.3282
Russell County	\$3,883,213	\$1,324,138	\$305.59	34.10%	.2705
New Kent County	\$4,052,399	\$1,388,808	\$590.23	34.27%	.4230
Charlotte County	\$2,247,005	\$835,169	\$375.19	37.17%	.2469
Northampton County	\$2,643,355	\$995,430	\$442.22	37.66%	.3230
Buena Vista City	\$1,160,640	\$437,836	\$391.97	37.72%	.2518
Suffolk City	\$13,802,289	\$5,293,925	\$465.24	38.36%	.3229
Rappahannock County	\$2,976,580	\$1,184,840	\$1,158.20	39.81%	.7130
Brunswick County	\$2,605,494	\$1,037,204	\$419.24	39.81%	.2822
Prince George County	\$5,706,972	\$2,362,810	\$410.21	41.40%	.2724
Cumberland County	\$1,673,210	\$695,076	\$534.67	41.54%	.3394
Tazewell County	\$7,118,523	\$2,984,802	\$408.21	41.93%	.2753
Warren County	\$6,813,133	\$2,866,981	\$594.07	42.08%	.3951
Bedford City-County	\$14,016,961	\$5,972,464	\$573.28	42.61%	.3933
Craig County	\$919,437	\$394,108	\$551.97	42.86%	.3416
Appomattox County	\$2,690,276	\$1,177,367	\$496.15	43.76%	.3121
Amelia County	\$2,300,242	\$1,010,225	\$564.69	43.92%	.3500
Washington County	\$8,181,899	\$3,603,900	\$490.19	44.05%	.3531
Patrick County	\$3,077,040	\$1,361,503	\$526.69	44.25%	.2993
York County	\$15,396,038	\$6,896,023	\$591.78	44.79%	.3881
Louisa County	\$10,282,717	\$4,808,838	\$1,175.47	46.77%	.6624
Nottoway County	\$2,586,960	\$1,242,951	\$505.06	48.05%	.2584
Nelson County	\$4,277,851	\$2,074,264	\$983.53	48.49%	.5036
Essex County	\$2,847,234	\$1,409,149	\$873.08	49.49%	.4529
Greene County	\$3,292,811	\$1,634,495	\$635.50	49.64%	.3268
Franklin County	\$10,022,396	\$5,298,985	\$756.89	52.87%	.3923
Lunenburg County	\$1,739,475	\$921,546	\$512.54	52.98%	.2448
Richmond County	\$1,577,676	\$842,187	\$676.46	53.38%	.3476
Pulaski County	\$5,753,782	\$3,158,095	\$632.50	54.89%	.3257
Clarke County	\$3,911,643	\$2,152,616	\$1,117.66	55.03%	.5169
Northumberland County	\$3,453,046	\$1,905,503	\$1,260.25	55.18%	.6220
King & Queen County	\$1,803,075	\$1,007,259	\$1,092.47	55.86%	.4020
Accomack County	\$6,579,671	\$3,702,248	\$706.27	56.27%	.3151
Goochland County	\$6,311,562	\$3,606,879	\$1,509.15	57.15%	.8812
Hanover County	\$26,565,752	\$15,225,019	\$934.16	57.31%	.4693
Fluvanna County	\$4,453,489	\$2,563,618	\$868.14	57.56%	.3817
King William County	\$2,775,996	\$1,656,145	\$936.73	59.66%	.3662
Carroll County	\$4,411,554	\$2,750,659	\$693.21	62.35%	.2952
Lancaster County	\$3,546,255	\$2,219,975	\$1,459.55	62.60%	.6395
Gloucester County	\$7,610,159	\$4,794,536	\$733.89	63.00%	.3255

Estimated Local Non-SOQ Operating Expenditures as a Percent of Required Local SOQ Expenditures (cont.)

School Division	Required Local SOQ Operating Expenditures (Local Match)	Estimated Local Non-SOQ Operating Expenditures in Total	Estimated Local Non-SOQ Operating Expenditures Per-Pupil	Local Non-SOQ as a Percent of Required Local SOQ Expenditures (Local Effort)	Uncapped 2000 – 2002 Composite Index
Halifax County	\$5,796,060	\$3,913,120	\$646.90	67.51%	.3870
Giles County	\$3,143,137	\$2,122,363	\$834.59	67.52%	.3183
Danville County	\$7,456,617	\$5,145,763	\$674.50	69.01%	.3036
Augusta County	\$13,798,939	\$9,544,714	\$878.81	69.17%	.3638
Shenandoah County	\$7,795,955	\$5,459,098	\$1,018.30	70.02%	.3908
Orange County	\$6,243,199	\$4,420,499	\$1,151.77	70.81%	.4294
Grayson County	\$2,456,292	\$1,753,258	\$746.07	71.38%	.2860
Bristol City	\$3,272,015	\$2,437,401	\$1,045.65	74.49%	.3583
Henrico County	\$75,489,064	\$57,231,078	\$1,406.69	75.81%	.5214
Southampton County	\$3,072,752	\$2,356,250	\$836.74	76.68%	.3093
Norton City	\$860,297	\$686,658	\$935.50	79.82%	.3501
Poquoson City	\$2,787,220	\$2,226,239	\$900.58	79.87%	.3414
Virginia Beach City	\$89,921,956	\$72,491,282	\$948.12	80.62%	.3522
Henry County	\$9,834,637	\$8,104,242	\$909.77	82.41%	.3069
Campbell County	\$8,794,137	\$7,267,995	\$844.82	82.65%	.3055
Chesterfield County	\$70,294,313	\$58,475,467	\$1,153.20	83.19%	.4055
Botetourt County	\$6,937,429	\$5,857,529	\$1,287.09	84.43%	.4148
Stafford County	\$24,705,225	\$21,090,093	\$1,055.67	85.37%	.3429
Staunton City	\$4,212,851	\$3,662,488	\$1,308.03	86.94%	.4132
Radford City	\$2,008,070	\$1,746,326	\$1,090.77	86.97%	.3313
Isle Of Wight County	\$6,970,979	\$6,129,111	\$1,262.43	87.92%	.3749
Rockbridge/Lexington	\$5,696,522	\$5,072,347	\$1,438.96	89.04%	.4258
Fauquier County	\$21,210,100	\$18,900,041	\$2,027.03	89.11%	.6115
Wise County	\$5,670,550	\$5,227,084	\$738.39	92.18%	.2237
Spotsylvania County	\$25,669,122	\$23,749,657	\$1,323.69	92.52%	.3692
Lynchburg City	\$13,150,520	\$12,179,989	\$1,321.76	92.62%	.3901
Albemarle County	\$28,174,903	\$26,783,222	\$2,208.56	95.06%	.6339
Loudoun County	\$72,225,592	\$68,905,128	\$2,404.06	95.40%	.6571
Madison County	\$2,779,010	\$2,676,087	\$1,452.82	96.30%	.4005
King George County	\$4,135,058	\$4,007,756	\$1,366.90	96.92%	.3538
Culpeper County	\$8,360,317	\$8,141,094	\$1,465.54	97.38%	.3999
Powhatan County	\$5,395,782	\$5,358,623	\$1,552.32	99.31%	.4034
Rockingham County	\$13,315,794	\$13,243,593	\$1,248.45	99.46%	.3674
Montgomery County	\$12,330,607	\$12,373,799	\$1,366.36	100.35%	.3812
Alleghany-Highlands	\$3,333,230	\$3,466,750	\$1,204.15	104.01%	.3128
Fredericksburg City	\$4,799,672	\$5,013,874	\$2,378.50	104.46%	.6859
Norfolk City	\$34,672,476	\$36,222,656	\$1,024.98	104.47%	.2762
Salem City	\$6,008,871	\$6,519,604	\$1,642.63	108.50%	.4370
Buchanan County	\$4,378,449	\$4,764,547	\$1,125.31	108.82%	.2572
Bath County	\$2,846,040	\$3,143,752	\$3,738.11	110.46%	1.739
Prince William County	\$81,906,643	\$90,752,109	\$1,704.01	110.80%	.4031
Hampton City	\$21,830,580	\$24,239,013	\$1,028.04	111.03%	.2802
Roanoke City	\$20,574,373	\$22,918,788	\$1,714.45	111.39%	.4078
Newport News City	\$30,842,979	\$35,170,798	\$1,104.68	114.03%	.2798
Manassas Park City	\$2,611,544	\$2,992,080	\$1,594.93	114.57%	.3184
James City County-Williamsburg	\$17,303,379	\$19,974,798	\$2,465.72	115.44%	.6812

Estimated Local Non-SOQ Operating Expenditures as a Percent of Required Local SOQ Expenditures (cont.)					
School Division	Required Local SOQ Operating Expenditures (Local Match)	Estimated Local Non-SOQ Operating Expenditures in Total	Estimated Local Non-SOQ Operating Expenditures Per-Pupil	Local Non-SOQ as a Percent of Required Local SOQ Expenditures (Local Effort)	Uncapped 2000 – 2002 Composite Index
Manassas City	\$10,963,600	\$12,822,314	\$2,039.82	116.95%	.4296
Dickenson County	\$2,594,866	\$3,039,319	\$1,105.21	117.13%	.2358
West Point Town	\$1,131,648	\$1,329,063	\$1,620.81	117.44%	.3202
Roanoke County	\$21,486,788	\$25,328,954	\$1,824.20	117.88%	.4263
Franklin City	\$1,594,865	\$1,881,766	\$1,254.51	117.99%	.2973
Surry County	\$4,181,462	\$4,950,226	\$4,145.92	118.39%	1.1408
Harrisonburg City	\$7,149,546	\$8,647,608	\$2,395.46	120.95%	.5492
Chesapeake City	\$44,920,645	\$56,426,772	\$1,510.88	125.61%	.3517
Hopewell City	\$3,829,218	\$4,810,251	\$1,228.99	125.62%	.2674
Frederick County	\$14,133,208	\$17,886,667	\$1,705.77	126.56%	.3841
Richmond City	\$41,244,497	\$53,312,266	\$2,016.27	129.26%	.4536
Waynesboro City	\$3,779,503	\$5,204,797	\$1,776.38	137.71%	.3730
Fairfax City-County	\$408,012,052	\$568,297,899	\$3,708.52	139.28%	.7208
Winchester City	\$6,425,363	\$9,592,778	\$2,845.68	149.30%	.5643
Colonial Heights City	\$4,597,623	\$7,213,539	\$2,608.87	156.90%	.4940
Alexandria City	\$34,614,840	\$56,102,907	\$5,107.23	162.08%	1.0894
Martinsville City	\$3,050,255	\$5,128,941	\$1,944.25	168.15%	.3210
Charles City County	\$1,556,602	\$2,707,344	\$2,828.99	173.93%	.4048
Sussex County	\$2,011,233	\$3,543,407	\$2,431.99	176.18%	.3229
Falls Church City	\$5,327,524	\$9,550,251	\$5,647.69	179.26%	.9925
Arlington County	\$58,156,912	\$111,201,096	\$6,162.09	191.21%	1.1248
Covington City	\$1,231,937	\$2,378,550	\$2,568.63	193.07%	.3358
Charlottesville City	\$8,230,682	\$19,860,145	\$4,558.22	241.29%	.5509
Source: JLARC staff analysis of the Virginia Department of Education's Superintendent's Annual Report and the Annual School Report.					



## Appendix C

### Illustrative Funding Options

This sheet summarizes the State and local cost impacts of fifteen illustrative funding options for the 2002-2004 biennium. Total biennial (two-year) costs for the options range from about \$14.8 billion to about \$17.3 billion. State costs under the illustrative options include State sales tax, the State portion of shared SOQ costs, and State non-SOQ costs. These costs range from about \$9.1 to \$10.5 billion. Locality costs, to provide the local share of costs based on the proportional splits assumed in the options, range from about \$5.6 to about \$6.9 billion.

<b>Two-Year Costs for Illustrative Funding Options (Estimated FY 2003 and FY 2004 Costs)</b>			
	<b>State Cost</b>	<b>Local Cost</b>	<b>Total Cost</b>
<b>Meeting SOQ Costs</b>			
Option 1: Composite Index	\$9,094,139,693	\$5,724,109,057	\$14,818,248,750
Option 6: Population Density Adjustment	\$9,136,600,501	\$5,681,648,249	\$14,818,248,750
Option 11: Combined Local Share Changes	\$9,188,439,914	\$5,629,808,836	\$14,818,248,750
<b>SOQ Costs Plus Elementary Resource Teachers and Secondary Planning Period Costs</b>			
Option 2: Composite Index	\$9,480,005,783	\$6,041,052,978	\$15,521,058,761
Option 7: Population Density Adjustment	\$9,524,689,399	\$5,996,369,362	\$15,521,058,761
Option 12: Combined Local Share Changes	\$9,579,206,029	\$5,941,852,732	\$15,521,058,761
<b>Prevailing Instructional Staffing and More At-Risk Pre-School Funds</b>			
Option 3: Composite Index	\$9,915,560,366	\$6,383,570,659	\$16,299,131,025
Option 8: Population Density Adjustment	\$9,963,212,658	\$6,335,918,367	\$16,299,131,025
Option 13: Combined Local Share Changes	\$10,021,255,258	\$6,277,875,767	\$16,299,131,025
<b>Prevailing Debt Service Costs Per-Pupil Funded, 50 Percent State Share</b>			
Option 4: Composite Index	\$10,207,015,668	\$6,675,025,960	\$16,882,041,628
Option 9: Population Density Adjustment	\$10,254,667,960	\$6,627,373,668	\$16,882,041,628
Option 14: Combined Local Share Changes	\$10,312,710,559	\$6,569,331,069	\$16,882,041,628
<b>Teacher Salaries: Linear Weighted Average Floor, Statewide Average Ceiling</b>			
Option 5: Comp Index	\$10,427,518,597	\$6,908,507,102	\$17,336,025,699
Option 10: Population Density Adjustment	\$10,477,144,403	\$6,858,881,296	\$17,336,025,699
Option 15: Combined Local Share Changes	\$10,537,356,574	\$6,798,669,125	\$17,336,025,699

## Option 1 -- Meeting SOQ Costs

**Table 1: Standards of Quality (SOQ) Cost Detail and Total Non-SOQ Costs**

	<u>FY 2003</u>	<u>FY 2004</u>	<u>Biennium Total</u>
<u>SOQ Instructional Personnel</u>			
Instructional Salaries:			
Basic Instructional Positions	\$2,177,485,907.04	\$2,258,174,687.44	\$4,435,660,594.48
Special Education Positions	\$542,882,322.45	\$561,926,429.49	\$1,104,808,751.94
Vocational Education Positions	\$215,823,755.64	\$223,143,775.77	\$438,967,531.41
Gifted & Talented Instructional Positions	\$45,783,257.92	\$47,593,354.24	\$93,376,612.16
Remedial Education Positions	\$63,411,962.71	\$65,410,108.93	\$128,822,071.64
Instructional Fringe Benefits	\$597,238,942.80	\$622,141,509.30	\$1,219,380,452.10
<i>Total for SOQ Instructional Personnel</i>	<i>\$3,642,626,148.57</i>	<i>\$3,778,389,865.16</i>	<i>\$7,421,016,013.73</i>
<u>SOQ Support</u>			
Support Salaries	\$871,070,368.32	\$895,528,449.64	\$1,766,598,817.96
Support Fringe Benefits	\$198,856,735.62	\$206,461,092.81	\$405,317,828.43
Support Non-Personnel Costs	\$1,475,378,658.19	\$1,502,078,841.23	\$2,977,457,499.43
Textbooks	\$70,082,654.24	\$70,082,654.24	\$140,165,308.47
<i>Total for SOQ Support</i>	<i>\$2,615,388,416.37</i>	<i>\$2,674,151,037.92</i>	<i>\$5,289,539,454.28</i>
<b>Estimated Total for Current SOQ Costs</b>	<b>\$6,258,014,564.94</b>	<b>\$6,452,540,903.08</b>	<b>\$12,710,555,468.01</b>
<b>Operating Cost of Initiative Exceeding Current SOQ</b>			
<b>Estimated Total Non-SOQ Costs (State and Local)</b>	<b>\$1,053,846,640.95</b>	<b>\$1,053,846,640.95</b>	<b>\$2,107,693,281.91</b>
K-3 Primary Class Size	\$112,337,473.73	\$112,337,473.73	\$224,674,947.46
Additional Teachers	\$51,331,382.05	\$51,331,382.05	\$102,662,764.09
Other Teacher/Aide Accounts	\$64,632,626.63	\$64,632,626.63	\$129,265,253.25
At-Risk Four Year Olds	\$42,881,103.99	\$42,881,103.99	\$85,762,207.97
School Construction	\$77,977,765.79	\$77,977,765.79	\$155,955,531.58
Maintenance Supplement	\$17,164,078.63	\$17,164,078.63	\$34,328,157.26
Other Non-SOQ Costs	\$687,522,210.15	\$687,522,210.15	\$1,375,044,420.29
<b>TOTAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>	<b>\$7,311,861,205.89</b>	<b>\$7,506,387,544.03</b>	<b>\$14,818,248,749.92</b>

**Table 2: Apportionment of SOQ Costs and Non-SOQ Costs to State and Local Governments**

	<u>Current Year FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Biennium Total</u>
<b>State Sales Tax</b>	<b>\$834,457,579.27</b>	<b>\$834,457,579.27</b>	<b>\$834,457,579.27</b>	<b>\$1,668,915,158.55</b>
<u>State Portion of SOQ Costs</u>				
Basic Aid	\$1,945,055,576.00	\$2,198,650,314.83	\$2,274,222,677.72	\$4,472,872,992.55
Vocational Ed.	\$40,753,297.00	\$123,932,162.18	\$127,793,432.44	\$251,725,594.61
Special Ed	\$221,938,460.00	\$296,565,279.07	\$306,073,939.92	\$602,639,219.00
Gifted	\$23,217,155.00	\$25,160,143.56	\$26,089,659.76	\$51,249,803.32
Remedial	\$39,227,842.00	\$37,830,431.39	\$38,942,823.84	\$76,773,255.23
VRS Retirement	\$72,880,705.00	\$94,032,177.95	\$97,066,228.92	\$191,098,406.87
Social Security	\$119,226,259.00	\$164,627,428.84	\$169,962,298.26	\$334,589,727.11
Group Life	\$4,998,110.00	\$6,886,376.11	\$7,109,534.05	\$13,995,910.15
Textbooks	\$38,821,991.00	\$38,982,025.57	\$38,982,025.57	\$77,964,051.14
<b>Estimated Total State SOQ</b>	<b>\$2,506,119,395.00</b>	<b>\$2,986,666,339.49</b>	<b>\$3,086,242,620.48</b>	<b>\$6,072,908,959.98</b>
<b>Estimated Total Local SOQ</b>		<b>\$2,436,890,646.17</b>	<b>\$2,531,840,703.32</b>	<b>\$4,968,731,349.49</b>
<b>Estimated Total for Current SOQ Costs</b>		<b>\$6,258,014,564.94</b>	<b>\$6,452,540,903.08</b>	<b>\$12,710,555,468.01</b>
<b>State Op. Cost of Initiative Exceeding Current SOQ</b>				
<b>Local Op. Cost of Initiative Exceeding Current SOQ</b>				
<u>State Portion of Non-SOQ Costs</u>				
K-3 Primary Class Size	\$67,783,172.00	\$67,922,380.81	\$67,922,380.81	\$135,844,761.62
Additional Teachers	\$28,289,496.00	\$28,401,541.09	\$28,401,541.09	\$56,803,082.18
Other Teacher/Aide Accounts	\$34,707,078.00	\$34,826,088.67	\$34,826,088.67	\$69,652,177.33
At-Risk Four Year Olds	\$23,511,541.00	\$23,577,237.63	\$23,577,237.63	\$47,154,475.26
School Construction	\$54,999,991.00	\$55,111,711.18	\$55,111,711.18	\$110,223,422.36
Maintenance Supplement	\$9,507,425.00	\$9,547,270.95	\$9,547,270.95	\$19,094,541.90
Other Non-SOQ Costs	\$455,603,961.32	\$456,771,557.00	\$456,771,557.00	\$913,543,113.99
<b>Tot. State Non-SOQ Costs</b>	<b>\$674,402,664.32</b>	<b>\$676,157,787.33</b>	<b>\$676,157,787.33</b>	<b>\$1,352,315,574.65</b>
<b>Est. Local Non-SOQ Costs</b>		<b>\$377,688,853.63</b>	<b>\$377,688,853.63</b>	<b>\$755,377,707.26</b>
<b>STATE SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$4,497,281,706.09</b>	<b>\$4,596,857,987.08</b>	<b>\$9,094,139,693.17</b>
<b>LOCAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$2,814,579,499.80</b>	<b>\$2,909,529,556.95</b>	<b>\$5,724,109,056.75</b>
<b>TOTAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$7,311,861,205.89</b>	<b>\$7,506,387,544.03</b>	<b>\$14,818,248,749.92</b>

**Option 2 -- Add-On Cost of Elementary Resource Teachers  
and 21 Secondary Teachers per 1000 ADM**

**Table 1: Standards of Quality (SOQ) Cost Detail and Total Non-SOQ Costs**

	<u>FY 2003</u>	<u>FY 2004</u>	<u>Biennium Total</u>
<u>SOQ Instructional Personnel</u>			
Instructional Salaries:			
Basic Instructional Positions	\$2,177,485,907.04	\$2,258,174,687.44	\$4,435,660,594.48
Special Education Positions	\$542,882,322.45	\$561,926,429.49	\$1,104,808,751.94
Vocational Education Positions	\$215,823,755.64	\$223,143,775.77	\$438,967,531.41
Gifted & Talented Instructional Positions	\$45,783,257.92	\$47,593,354.24	\$93,376,612.16
Remedial Education Positions	\$63,411,962.71	\$65,410,108.93	\$128,822,071.64
Instructional Fringe Benefits	\$597,238,942.80	\$622,141,509.30	\$1,219,380,452.10
<i>Total for SOQ Instructional Personnel</i>	<i>\$3,642,626,148.57</i>	<i>\$3,778,389,865.16</i>	<i>\$7,421,016,013.73</i>
<u>SOQ Support</u>			
Support Salaries	\$871,070,368.32	\$895,528,449.64	\$1,766,598,817.96
Support Fringe Benefits	\$198,856,735.62	\$206,461,092.81	\$405,317,828.43
Support Non-Personnel Costs	\$1,475,378,658.19	\$1,502,078,841.23	\$2,977,457,499.43
Textbooks	\$70,082,654.24	\$70,082,654.24	\$140,165,308.47
<i>Total for SOQ Support</i>	<i>\$2,615,388,416.37</i>	<i>\$2,674,151,037.92</i>	<i>\$5,289,539,454.28</i>
<b>Estimated Total for Current SOQ Costs</b>	<b>\$6,258,014,564.94</b>	<b>\$6,452,540,903.08</b>	<b>\$12,710,555,468.01</b>
<b>Operating Cost of Initiative Exceeding Current SOQ</b>	<b>\$344,843,924.96</b>	<b>\$357,966,086.32</b>	<b>\$702,810,011.28</b>
<b>Estimated Total Non-SOQ Costs (State and Local)</b>	<b>\$1,053,846,640.95</b>	<b>\$1,053,846,640.95</b>	<b>\$2,107,693,281.91</b>
K-3 Primary Class Size	\$112,337,473.73	\$112,337,473.73	\$224,674,947.46
Additional Teachers	\$51,331,382.05	\$51,331,382.05	\$102,662,764.09
Other Teacher/Aide Accounts	\$64,632,626.63	\$64,632,626.63	\$129,265,253.25
At-Risk Four Year Olds	\$42,881,103.99	\$42,881,103.99	\$85,762,207.97
School Construction	\$77,977,765.79	\$77,977,765.79	\$155,955,531.58
Maintenance Supplement	\$17,164,078.63	\$17,164,078.63	\$34,328,157.26
Other Non-SOQ Costs	\$687,522,210.15	\$687,522,210.15	\$1,375,044,420.29
<b>TOTAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>	<b>\$7,656,705,130.85</b>	<b>\$7,864,353,630.35</b>	<b>\$15,521,058,761.20</b>

**Table 2: Apportionment of SOQ Costs and Non-SOQ Costs to State and Local Governments**

	<u>Current Year FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Biennium Total</u>
<b>State Sales Tax</b>	<b>\$834,457,579.27</b>	<b>\$834,457,579.27</b>	<b>\$834,457,579.27</b>	<b>\$1,668,915,158.55</b>
<u>State Portion of SOQ Costs</u>				
Basic Aid	\$1,945,055,576.00	\$2,198,650,314.83	\$2,274,222,677.72	\$4,472,872,992.55
Vocational Ed.	\$40,753,297.00	\$123,932,162.18	\$127,793,432.44	\$251,725,594.61
Special Ed	\$221,938,460.00	\$296,565,279.07	\$306,073,939.92	\$602,639,219.00
Gifted	\$23,217,155.00	\$25,160,143.56	\$26,089,659.76	\$51,249,803.32
Remedial	\$39,227,842.00	\$37,830,431.39	\$38,942,823.84	\$76,773,255.23
VRS Retirement	\$72,880,705.00	\$94,032,177.95	\$97,066,228.92	\$191,098,406.87
Social Security	\$119,226,259.00	\$164,627,428.84	\$169,962,298.26	\$334,589,727.11
Group Life	\$4,998,110.00	\$6,886,376.11	\$7,109,534.05	\$13,995,910.15
Textbooks	\$38,821,991.00	\$38,982,025.57	\$38,982,025.57	\$77,964,051.14
<b>Estimated Total State SOQ</b>	<b>\$2,506,119,395.00</b>	<b>\$2,986,666,339.49</b>	<b>\$3,086,242,620.48</b>	<b>\$6,072,908,959.98</b>
<b>Estimated Total Local SOQ</b>		<b>\$2,436,890,646.17</b>	<b>\$2,531,840,703.32</b>	<b>\$4,968,731,349.49</b>
<b>Estimated Total for Current SOQ Costs</b>		<b>\$6,258,014,564.94</b>	<b>\$6,452,540,903.08</b>	<b>\$12,710,555,468.01</b>
<b>State Op. Cost of Initiative Exceeding Current SOQ</b>		<b>\$189,577,958.33</b>	<b>\$196,288,132.08</b>	<b>\$385,866,090.41</b>
<b>Local Op. Cost of Initiative Exceeding Current SOQ</b>		<b>\$155,265,966.63</b>	<b>\$161,677,954.24</b>	<b>\$316,943,920.87</b>
<u>State Portion of Non-SOQ Costs</u>				
K-3 Primary Class Size	\$67,783,172.00	\$67,922,380.81	\$67,922,380.81	\$135,844,761.62
Additional Teachers	\$28,289,496.00	\$28,401,541.09	\$28,401,541.09	\$56,803,082.18
Other Teacher/Aide Accounts	\$34,707,078.00	\$34,826,088.67	\$34,826,088.67	\$69,652,177.33
At-Risk Four Year Olds	\$23,511,541.00	\$23,577,237.63	\$23,577,237.63	\$47,154,475.26
School Construction	\$54,999,991.00	\$55,111,711.18	\$55,111,711.18	\$110,223,422.36
Maintenance Supplement	\$9,507,425.00	\$9,547,270.95	\$9,547,270.95	\$19,094,541.90
Other Non-SOQ Costs	\$455,603,961.32	\$456,771,557.00	\$456,771,557.00	\$913,543,113.99
<b>Tot. State Non-SOQ Costs</b>	<b>\$674,402,664.32</b>	<b>\$676,157,787.33</b>	<b>\$676,157,787.33</b>	<b>\$1,352,315,574.65</b>
<b>Est. Local Non-SOQ Costs</b>		<b>\$377,688,853.63</b>	<b>\$377,688,853.63</b>	<b>\$755,377,707.26</b>
<b>STATE SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$4,686,859,664.42</b>	<b>\$4,793,146,119.16</b>	<b>\$9,480,005,783.58</b>
<b>LOCAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$2,969,845,466.43</b>	<b>\$3,071,207,511.19</b>	<b>\$6,041,052,977.62</b>
<b>TOTAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$7,656,705,130.85</b>	<b>\$7,864,353,630.35</b>	<b>\$15,521,058,761.20</b>

**Option 3 -- Prevailing Instructional Staffing Ratios  
and More At-Risk Pre-School**

**Table 1: Standards of Quality (SOQ) Cost Detail and Total Non-SOQ Costs**

<u>SOQ Instructional Personnel</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Biennium Total</u>
Instructional Salaries:			
Basic Instructional Positions	\$2,177,485,907.04	\$2,258,174,687.44	\$4,435,660,594.48
Special Education Positions	\$542,882,322.45	\$561,926,429.49	\$1,104,808,751.94
Vocational Education Positions	\$215,823,755.64	\$223,143,775.77	\$438,967,531.41
Gifted & Talented Instructional Positions	\$45,783,257.92	\$47,593,354.24	\$93,376,612.16
Remedial Education Positions	\$63,411,962.71	\$65,410,108.93	\$128,822,071.64
Instructional Fringe Benefits	\$597,238,942.80	\$622,141,509.30	\$1,219,380,452.10
<i>Total for SOQ Instructional Personnel</i>	<i>\$3,642,626,148.57</i>	<i>\$3,778,389,865.16</i>	<i>\$7,421,016,013.73</i>
<u>SOQ Support</u>			
Support Salaries	\$871,070,368.32	\$895,528,449.64	\$1,766,598,817.96
Support Fringe Benefits	\$198,856,735.62	\$206,461,092.81	\$405,317,828.43
Support Non-Personnel Costs	\$1,475,378,658.19	\$1,502,078,841.23	\$2,977,457,499.43
Textbooks	\$70,082,654.24	\$70,082,654.24	\$140,165,308.47
<i>Total for SOQ Support</i>	<i>\$2,615,388,416.37</i>	<i>\$2,674,151,037.92</i>	<i>\$5,289,539,454.28</i>
<b>Estimated Total for Current SOQ Costs</b>	<b>\$6,258,014,564.94</b>	<b>\$6,452,540,903.08</b>	<b>\$12,710,555,468.01</b>
<b>Operating Cost of Initiative Exceeding Current SOQ</b>	<b>\$658,359,139.53</b>	<b>\$683,193,803.53</b>	<b>\$1,341,552,943.05</b>
<b>Estimated Total Non-SOQ Costs (State and Local)</b>	<b>\$1,122,047,436.97</b>	<b>\$1,124,975,176.97</b>	<b>\$2,247,022,613.93</b>
K-3 Primary Class Size	\$112,337,473.73	\$112,337,473.73	\$224,674,947.46
Additional Teachers	\$51,331,382.05	\$51,331,382.05	\$102,662,764.09
Other Teacher/Aide Accounts	\$64,632,626.63	\$64,632,626.63	\$129,265,253.25
At-Risk Four Year Olds	\$42,881,103.99	\$42,881,103.99	\$85,762,207.97
<b>Additional At-Risk Pre-School</b>	<b>\$68,200,796.01</b>	<b>\$71,128,536.01</b>	<b>\$139,329,332.03</b>
School Construction	\$77,977,765.79	\$77,977,765.79	\$155,955,531.58
Maintenance Supplement	\$17,164,078.63	\$17,164,078.63	\$34,328,157.26
Other Non-SOQ Costs	\$687,522,210.15	\$687,522,210.15	\$1,375,044,420.29
<b>TOTAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>	<b>\$8,038,421,141.43</b>	<b>\$8,260,709,883.57</b>	<b>\$16,299,131,025.00</b>

**Table 2: Apportionment of SOQ Costs and Non-SOQ Costs to State and Local Governments**

	<u>Current Year FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Biennium Total</u>
<b>State Sales Tax</b>	<b>\$834,457,579.27</b>	<b>\$834,457,579.27</b>	<b>\$834,457,579.27</b>	<b>\$1,668,915,158.55</b>
<u>State Portion of SOQ Costs</u>				
Basic Aid	\$1,945,055,576.00	\$2,198,650,314.83	\$2,274,222,677.72	\$4,472,872,992.55
Vocational Ed.	\$40,753,297.00	\$123,932,162.18	\$127,793,432.44	\$251,725,594.61
Special Ed	\$221,938,460.00	\$296,565,279.07	\$306,073,939.92	\$602,639,219.00
Gifted	\$23,217,155.00	\$25,160,143.56	\$26,089,659.76	\$51,249,803.32
Remedial	\$39,227,842.00	\$37,830,431.39	\$38,942,823.84	\$76,773,255.23
VRS Retirement	\$72,880,705.00	\$94,032,177.95	\$97,066,228.92	\$191,098,406.87
Social Security	\$119,226,259.00	\$164,627,428.84	\$169,962,298.26	\$334,589,727.11
Group Life	\$4,998,110.00	\$6,886,376.11	\$7,109,534.05	\$13,995,910.15
Textbooks	\$38,821,991.00	\$38,982,025.57	\$38,982,025.57	\$77,964,051.14
<b>Estimated Total State SOQ</b>	<b>\$2,506,119,395.00</b>	<b>\$2,986,666,339.49</b>	<b>\$3,086,242,620.48</b>	<b>\$6,072,908,959.98</b>
<b>Estimated Total Local SOQ</b>		<b>\$2,436,890,646.17</b>	<b>\$2,531,840,703.32</b>	<b>\$4,968,731,349.49</b>
<b>Estimated Total for Current SOQ Costs</b>		<b>\$6,258,014,564.94</b>	<b>\$6,452,540,903.08</b>	<b>\$12,710,555,468.01</b>
<b>State Op. Cost of Initiative Exceeding Current SOQ</b>		<b>\$362,754,602.52</b>	<b>\$375,436,941.87</b>	<b>\$738,191,544.40</b>
<b>Local Op. Cost of Initiative Exceeding Current SOQ</b>		<b>\$295,604,537.00</b>	<b>\$307,756,861.65</b>	<b>\$603,361,398.65</b>
<u>State Portion of Non-SOQ Costs</u>				
K-3 Primary Class Size	\$67,783,172.00	\$67,922,380.81	\$67,922,380.81	\$135,844,761.62
Additional Teachers	\$28,289,496.00	\$28,401,541.09	\$28,401,541.09	\$56,803,082.18
Other Teacher/Aide Accounts	\$34,707,078.00	\$34,826,088.67	\$34,826,088.67	\$69,652,177.33
At-Risk Four Year Olds	\$23,511,541.00	\$23,577,237.63	\$23,577,237.63	\$47,154,475.26
<b>Additional At-Risk Pre-School</b>		<b>\$40,766,622.06</b>	<b>\$42,462,506.73</b>	<b>\$83,229,128.79</b>
School Construction	\$54,999,991.00	\$55,111,711.18	\$55,111,711.18	\$110,223,422.36
Maintenance Supplement	\$9,507,425.00	\$9,547,270.95	\$9,547,270.95	\$19,094,541.90
Other Non-SOQ Costs	\$455,603,961.32	\$456,771,557.00	\$456,771,557.00	\$913,543,113.99
<b>Tot. State Non-SOQ Costs</b>	<b>\$674,402,664.32</b>	<b>\$716,924,409.38</b>	<b>\$718,620,294.06</b>	<b>\$1,435,544,703.44</b>
<b>Est. Local Non-SOQ Costs</b>		<b>\$405,123,027.58</b>	<b>\$406,354,882.91</b>	<b>\$811,477,910.49</b>
<b>STATE SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$4,900,802,930.68</b>	<b>\$5,014,757,435.69</b>	<b>\$9,915,560,366.36</b>
<b>LOCAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$3,137,618,210.75</b>	<b>\$3,245,952,447.88</b>	<b>\$6,383,570,658.63</b>
<b>TOTAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$8,038,421,141.43</b>	<b>\$8,260,709,883.57</b>	<b>\$16,299,131,025.00</b>

## Option 4 -- Prevailing Debt Service

**Table 1: Standards of Quality (SOQ) Cost Detail and Total Non-SOQ Costs**

	<u>FY 2003</u>	<u>FY 2004</u>	<u>Biennium Total</u>
<u>SOQ Instructional Personnel</u>			
Instructional Salaries:			
Basic Instructional Positions	\$2,177,485,907.04	\$2,258,174,687.44	\$4,435,660,594.48
Special Education Positions	\$542,882,322.45	\$561,926,429.49	\$1,104,808,751.94
Vocational Education Positions	\$215,823,755.64	\$223,143,775.77	\$438,967,531.41
Gifted & Talented Instructional Positions	\$45,783,257.92	\$47,593,354.24	\$93,376,612.16
Remedial Education Positions	\$63,411,962.71	\$65,410,108.93	\$128,822,071.64
Instructional Fringe Benefits	\$597,238,942.80	\$622,141,509.30	\$1,219,380,452.10
<i>Total for SOQ Instructional Personnel</i>	<i>\$3,642,626,148.57</i>	<i>\$3,778,389,865.16</i>	<i>\$7,421,016,013.73</i>
<u>SOQ Support</u>			
Support Salaries	\$871,070,368.32	\$895,528,449.64	\$1,766,598,817.96
Support Fringe Benefits	\$198,856,735.62	\$206,461,092.81	\$405,317,828.43
Support Non-Personnel Costs	\$1,475,378,658.19	\$1,502,078,841.23	\$2,977,457,499.43
Textbooks	\$70,082,654.24	\$70,082,654.24	\$140,165,308.47
<i>Total for SOQ Support</i>	<i>\$2,615,388,416.37</i>	<i>\$2,674,151,037.92</i>	<i>\$5,289,539,454.28</i>
<b>Estimated Total for Current SOQ Costs</b>	<b>\$6,258,014,564.94</b>	<b>\$6,452,540,903.08</b>	<b>\$12,710,555,468.01</b>
<b>Operating Cost of Initiative Exceeding Current SOQ</b>	<b>\$658,359,139.53</b>	<b>\$683,193,803.53</b>	<b>\$1,341,552,943.05</b>
<b>Estimated Total Non-SOQ Costs (State and Local)</b>	<b>\$1,405,981,472.38</b>	<b>\$1,423,951,744.69</b>	<b>\$2,829,933,217.07</b>
K-3 Primary Class Size	\$112,337,473.73	\$112,337,473.73	\$224,674,947.46
Additional Teachers	\$51,331,382.05	\$51,331,382.05	\$102,662,764.09
Other Teacher/Aide Accounts	\$64,632,626.63	\$64,632,626.63	\$129,265,253.25
At-Risk Four Year Olds	\$42,881,103.99	\$42,881,103.99	\$85,762,207.97
<b>Additional At-Risk Pre-School</b>	<b>\$68,200,796.01</b>	<b>\$71,128,536.01</b>	<b>\$139,329,332.03</b>
School Construction	\$77,977,765.79	\$77,977,765.79	\$155,955,531.58
<b>Additional Debt Service</b>	<b>\$283,934,035.41</b>	<b>\$298,976,567.72</b>	<b>\$582,910,603.13</b>
Maintenance Supplement	\$17,164,078.63	\$17,164,078.63	\$34,328,157.26
Other Non-SOQ Costs	\$687,522,210.15	\$687,522,210.15	\$1,375,044,420.29
<b>TOTAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>	<b>\$8,322,355,176.84</b>	<b>\$8,559,686,451.29</b>	<b>\$16,882,041,628.13</b>

**Table 2: Apportionment of SOQ Costs and Non-SOQ Costs to State and Local Governments**

	<u>Current Year FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Biennium Total</u>
<b>State Sales Tax</b>	<b>\$834,457,579.27</b>	<b>\$834,457,579.27</b>	<b>\$834,457,579.27</b>	<b>\$1,668,915,158.55</b>
<u>State Portion of SOQ Costs</u>				
Basic Aid	\$1,945,055,576.00	\$2,198,650,314.83	\$2,274,222,677.72	\$4,472,872,992.55
Vocational Ed.	\$40,753,297.00	\$123,932,162.18	\$127,793,432.44	\$251,725,594.61
Special Ed	\$221,938,460.00	\$296,565,279.07	\$306,073,939.92	\$602,639,219.00
Gifted	\$23,217,155.00	\$25,160,143.56	\$26,089,659.76	\$51,249,803.32
Remedial	\$39,227,842.00	\$37,830,431.39	\$38,942,823.84	\$76,773,255.23
VRS Retirement	\$72,880,705.00	\$94,032,177.95	\$97,066,228.92	\$191,098,406.87
Social Security	\$119,226,259.00	\$164,627,428.84	\$169,962,298.26	\$334,589,727.11
Group Life	\$4,998,110.00	\$6,886,376.11	\$7,109,534.05	\$13,995,910.15
Textbooks	\$38,821,991.00	\$38,982,025.57	\$38,982,025.57	\$77,964,051.14
<b>Estimated Total State SOQ</b>	<b>\$2,506,119,395.00</b>	<b>\$2,986,666,339.49</b>	<b>\$3,086,242,620.48</b>	<b>\$6,072,908,959.98</b>
<b>Estimated Total Local SOQ</b>		<b>\$2,436,890,646.17</b>	<b>\$2,531,840,703.32</b>	<b>\$4,968,731,349.49</b>
<b>Estimated Total for Current SOQ Costs</b>		<b>\$6,258,014,564.94</b>	<b>\$6,452,540,903.08</b>	<b>\$12,710,555,468.01</b>
<b>State Op. Cost of Initiative Exceeding Current SOQ</b>		<b>\$362,754,602.52</b>	<b>\$375,436,941.87</b>	<b>\$738,191,544.40</b>
<b>Local Op. Cost of Initiative Exceeding Current SOQ</b>		<b>\$295,604,537.00</b>	<b>\$307,756,861.65</b>	<b>\$603,361,398.65</b>
<u>State Portion of Non-SOQ Costs</u>				
K-3 Primary Class Size	\$67,783,172.00	\$67,922,380.81	\$67,922,380.81	\$135,844,761.62
Additional Teachers	\$28,289,496.00	\$28,401,541.09	\$28,401,541.09	\$56,803,082.18
Other Teacher/Aide Accounts	\$34,707,078.00	\$34,826,088.67	\$34,826,088.67	\$69,652,177.33
At-Risk Four Year Olds	\$23,511,541.00	\$23,577,237.63	\$23,577,237.63	\$47,154,475.26
<b>Additional At-Risk Pre-School</b>		<b>\$40,766,622.06</b>	<b>\$42,462,506.73</b>	<b>\$83,229,128.79</b>
School Construction	\$54,999,991.00	\$55,111,711.18	\$55,111,711.18	\$110,223,422.36
<b>Additional Debt Service</b>		<b>\$141,967,017.71</b>	<b>\$149,488,283.86</b>	<b>\$291,455,301.57</b>
Maintenance Supplement	\$9,507,425.00	\$9,547,270.95	\$9,547,270.95	\$19,094,541.90
Other Non-SOQ Costs	\$455,603,961.32	\$456,771,557.00	\$456,771,557.00	\$913,543,113.99
<b>Tot. State Non-SOQ Costs</b>	<b>\$674,402,664.32</b>	<b>\$858,891,427.09</b>	<b>\$868,108,577.92</b>	<b>\$1,727,000,005.01</b>
<b>Est. Local Non-SOQ Costs</b>		<b>\$547,090,045.29</b>	<b>\$555,843,166.77</b>	<b>\$1,102,933,212.05</b>
<b>STATE SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$5,042,769,948.38</b>	<b>\$5,164,245,719.55</b>	<b>\$10,207,015,667.93</b>
<b>LOCAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$3,279,585,228.46</b>	<b>\$3,395,440,731.74</b>	<b>\$6,675,025,960.20</b>
<b>TOTAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$8,322,355,176.84</b>	<b>\$8,559,686,451.29</b>	<b>\$16,882,041,628.13</b>

**Option 5 -- Varying Teacher Salaries**  
**with Linear Weighted Average Floor, Statewide Average Ceiling**

**Table 1: Standards of Quality (SOQ) Cost Detail and Total Non-SOQ Costs**

	<u>FY 2003</u>	<u>FY 2004</u>	<u>Biennium Total</u>
<u>SOQ Instructional Personnel</u>			
Instructional Salaries:			
Basic Instructional Positions	\$2,177,485,907.04	\$2,258,174,687.44	\$4,435,660,594.48
Special Education Positions	\$542,882,322.45	\$561,926,429.49	\$1,104,808,751.94
Vocational Education Positions	\$215,823,755.64	\$223,143,775.77	\$438,967,531.41
Gifted & Talented Instructional Positions	\$45,783,257.92	\$47,593,354.24	\$93,376,612.16
Remedial Education Positions	\$63,411,962.71	\$65,410,108.93	\$128,822,071.64
Instructional Fringe Benefits	\$597,238,942.80	\$622,141,509.30	\$1,219,380,452.10
<i>Total for SOQ Instructional Personnel</i>	<i>\$3,642,626,148.57</i>	<i>\$3,778,389,865.16</i>	<i>\$7,421,016,013.73</i>
<u>SOQ Support</u>			
Support Salaries	\$871,070,368.32	\$895,528,449.64	\$1,766,598,817.96
Support Fringe Benefits	\$198,856,735.62	\$206,461,092.81	\$405,317,828.43
Support Non-Personnel Costs	\$1,475,378,658.19	\$1,502,078,841.23	\$2,977,457,499.43
Textbooks	\$70,082,654.24	\$70,082,654.24	\$140,165,308.47
<i>Total for SOQ Support</i>	<i>\$2,615,388,416.37</i>	<i>\$2,674,151,037.92</i>	<i>\$5,289,539,454.28</i>
<b>Estimated Total for Current SOQ Costs</b>	<b>\$6,258,014,564.94</b>	<b>\$6,452,540,903.08</b>	<b>\$12,710,555,468.01</b>
<b>Operating Cost of Initiative Exceeding Current SOQ</b>	<b>\$880,704,620.25</b>	<b>\$914,832,393.96</b>	<b>\$1,795,537,014.21</b>
<b>Estimated Total Non-SOQ Costs (State and Local)</b>	<b>\$1,405,981,472.38</b>	<b>\$1,423,951,744.69</b>	<b>\$2,829,933,217.07</b>
K-3 Primary Class Size	\$112,337,473.73	\$112,337,473.73	\$224,674,947.46
Additional Teachers	\$51,331,382.05	\$51,331,382.05	\$102,662,764.09
Other Teacher/Aide Accounts	\$64,632,626.63	\$64,632,626.63	\$129,265,253.25
At-Risk Four Year Olds	\$42,881,103.99	\$42,881,103.99	\$85,762,207.97
<b>Additional At-Risk Pre-School</b>	<b>\$68,200,796.01</b>	<b>\$71,128,536.01</b>	<b>\$139,329,332.03</b>
School Construction	\$77,977,765.79	\$77,977,765.79	\$155,955,531.58
<b>Additional Debt Service</b>	<b>\$293,934,035.41</b>	<b>\$298,976,567.72</b>	<b>\$582,910,603.13</b>
Maintenance Supplement	\$17,164,078.63	\$17,164,078.63	\$34,328,157.26
Other Non-SOQ Costs	\$687,522,210.15	\$687,522,210.15	\$1,375,044,420.29
<b>TOTAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>	<b>\$8,544,700,657.57</b>	<b>\$8,791,325,041.72</b>	<b>\$17,336,025,699.29</b>

**Table 2: Apportionment of SOQ Costs and Non-SOQ Costs to State and Local Governments**

	<u>Current Year FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Biennium Total</u>
<b>State Sales Tax</b>	<b>\$834,457,579.27</b>	<b>\$834,457,579.27</b>	<b>\$834,457,579.27</b>	<b>\$1,668,915,158.55</b>
<u>State Portion of SOQ Costs</u>				
Basic Aid	\$1,945,055,576.00	\$2,198,650,314.83	\$2,274,222,677.72	\$4,472,872,992.55
Vocational Ed.	\$40,753,297.00	\$123,932,162.18	\$127,793,432.44	\$251,725,594.61
Special Ed	\$221,938,460.00	\$296,565,279.07	\$306,073,939.92	\$602,639,219.00
Gifted	\$23,217,155.00	\$25,160,143.56	\$26,089,659.76	\$51,249,803.32
Remedial	\$39,227,842.00	\$37,830,431.39	\$38,942,823.84	\$76,773,255.23
VRS Retirement	\$72,880,705.00	\$94,032,177.95	\$97,066,228.92	\$191,098,406.87
Social Security	\$119,226,259.00	\$164,627,428.84	\$169,962,298.26	\$334,589,727.11
Group Life	\$4,998,110.00	\$6,886,376.11	\$7,109,534.05	\$13,995,910.15
Textbooks	\$38,821,991.00	\$38,982,025.57	\$38,982,025.57	\$77,964,051.14
<b>Estimated Total State SOQ</b>	<b>\$2,506,119,395.00</b>	<b>\$2,986,666,339.49</b>	<b>\$3,086,242,620.48</b>	<b>\$6,072,908,959.98</b>
<b>Estimated Total Local SOQ</b>		<b>\$2,436,890,646.17</b>	<b>\$2,531,840,703.32</b>	<b>\$4,968,731,349.49</b>
<b>Estimated Total for Current SOQ Costs</b>		<b>\$6,258,014,564.94</b>	<b>\$6,452,540,903.08</b>	<b>\$12,710,555,468.01</b>
<b>State Op. Cost of Initiative Exceeding Current SOQ</b>		<b>\$470,869,771.30</b>	<b>\$487,824,702.89</b>	<b>\$958,694,474.18</b>
<b>Local Op. Cost of Initiative Exceeding Current SOQ</b>		<b>\$409,834,848.95</b>	<b>\$427,007,691.07</b>	<b>\$836,842,540.02</b>
<u>State Portion of Non-SOQ Costs</u>				
K-3 Primary Class Size	\$67,783,172.00	\$67,922,380.81	\$67,922,380.81	\$135,844,761.62
Additional Teachers	\$28,289,496.00	\$28,401,541.09	\$28,401,541.09	\$56,803,082.18
Other Teacher/Aide Accounts	\$34,707,078.00	\$34,826,088.67	\$34,826,088.67	\$69,652,177.33
At-Risk Four Year Olds	\$23,511,541.00	\$23,577,237.63	\$23,577,237.63	\$47,154,475.26
<b>Additional At-Risk Pre-School</b>		<b>\$40,766,622.06</b>	<b>\$42,462,506.73</b>	<b>\$83,229,128.79</b>
School Construction	\$54,999,991.00	\$55,111,711.18	\$55,111,711.18	\$110,223,422.36
<b>Additional Debt Service</b>		<b>\$141,967,017.71</b>	<b>\$149,488,283.86</b>	<b>\$291,455,301.57</b>
Maintenance Supplement	\$9,507,425.00	\$9,547,270.95	\$9,547,270.95	\$19,094,541.90
Other Non-SOQ Costs	\$455,603,961.32	\$456,771,557.00	\$456,771,557.00	\$913,543,113.99
<b>Tot. State Non-SOQ Costs</b>	<b>\$674,402,664.32</b>	<b>\$858,891,427.09</b>	<b>\$868,108,577.92</b>	<b>\$1,727,000,005.01</b>
<b>Est. Local Non-SOQ Costs</b>		<b>\$547,090,045.29</b>	<b>\$555,843,166.77</b>	<b>\$1,102,933,212.05</b>
<b>STATE SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$5,150,885,117.16</b>	<b>\$5,276,633,480.56</b>	<b>\$10,427,518,597.72</b>
<b>LOCAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$3,393,815,540.41</b>	<b>\$3,514,691,561.16</b>	<b>\$6,908,507,101.57</b>
<b>TOTAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$8,544,700,657.57</b>	<b>\$8,791,325,041.72</b>	<b>\$17,336,025,699.29</b>

## Option 6 -- Meeting SOQ Costs (with Pop. Density Adjustment)

**Table 1: Standards of Quality (SOQ) Cost Detail and Total Non-SOQ Costs**

	<u>FY 2003</u>	<u>FY 2004</u>	<u>Biennium Total</u>
<u>SOQ Instructional Personnel</u>			
Instructional Salaries:			
Basic Instructional Positions	\$2,177,485,907.04	\$2,258,174,687.44	\$4,435,660,594.48
Special Education Positions	\$542,882,322.45	\$561,926,429.49	\$1,104,808,751.94
Vocational Education Positions	\$215,823,755.64	\$223,143,775.77	\$438,967,531.41
Gifted & Talented Instructional Positions	\$45,783,257.92	\$47,593,354.24	\$93,376,612.16
Remedial Education Positions	\$63,411,962.71	\$65,410,108.93	\$128,822,071.64
Instructional Fringe Benefits	\$597,238,942.80	\$622,141,509.30	\$1,219,380,452.10
<i>Total for SOQ Instructional Personnel</i>	<i>\$3,642,626,148.57</i>	<i>\$3,778,389,865.16</i>	<i>\$7,421,016,013.73</i>
<u>SOQ Support</u>			
Support Salaries	\$871,070,368.32	\$895,528,449.64	\$1,766,598,817.96
Support Fringe Benefits	\$198,856,735.62	\$206,461,092.81	\$405,317,828.43
Support Non-Personnel Costs	\$1,475,378,658.19	\$1,502,078,841.23	\$2,977,457,499.43
Textbooks	\$70,082,654.24	\$70,082,654.24	\$140,165,308.47
<i>Total for SOQ Support</i>	<i>\$2,615,388,416.37</i>	<i>\$2,674,151,037.92</i>	<i>\$5,289,539,454.28</i>
<b>Estimated Total for Current SOQ Costs</b>	<b>\$6,258,014,564.94</b>	<b>\$6,452,540,903.08</b>	<b>\$12,710,555,468.01</b>
<b>Operating Cost of Initiative Exceeding Current SOQ</b>			
<b>Estimated Total Non-SOQ Costs (State and Local)</b>	<b>\$1,053,846,640.95</b>	<b>\$1,053,846,640.95</b>	<b>\$2,107,693,281.91</b>
K-3 Primary Class Size	\$112,337,473.73	\$112,337,473.73	\$224,674,947.46
Additional Teachers	\$51,331,382.05	\$51,331,382.05	\$102,662,764.09
Other Teacher/Aide Accounts	\$64,632,626.63	\$64,632,626.63	\$129,265,253.25
At-Risk Four Year Olds	\$42,881,103.99	\$42,881,103.99	\$85,762,207.97
School Construction	\$77,977,765.79	\$77,977,765.79	\$155,955,531.58
Maintenance Supplement	\$17,164,078.63	\$17,164,078.63	\$34,328,157.26
Other Non-SOQ Costs	\$687,522,210.15	\$687,522,210.15	\$1,375,044,420.29
<b>TOTAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>	<b>\$7,311,861,205.89</b>	<b>\$7,506,387,544.03</b>	<b>\$14,818,248,749.92</b>

**Table 2: Apportionment of SOQ Costs and Non-SOQ Costs to State and Local Governments**

	<u>Current Year FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Biennium Total</u>
<b>State Sales Tax</b>	<b>\$834,457,579.27</b>	<b>\$834,457,579.27</b>	<b>\$834,457,579.27</b>	<b>\$1,668,915,158.55</b>
<u>State Portion of SOQ Costs</u>				
Basic Aid	\$1,945,055,576.00	\$2,211,173,047.86	\$2,287,098,280.86	\$4,498,271,328.72
Vocational Ed.	\$40,753,297.00	\$124,538,592.59	\$128,415,090.61	\$252,953,683.20
Special Ed	\$221,938,460.00	\$298,492,207.08	\$308,043,762.12	\$606,535,969.20
Gifted	\$23,217,155.00	\$25,307,759.31	\$26,241,382.05	\$51,549,141.36
Remedial	\$39,227,842.00	\$38,093,151.62	\$39,211,062.12	\$77,304,213.74
VRS Retirement	\$72,880,705.00	\$94,591,626.51	\$97,640,490.47	\$192,232,116.98
Social Security	\$119,226,259.00	\$165,606,464.18	\$170,967,247.30	\$336,573,711.47
Group Life	\$4,998,110.00	\$6,927,329.22	\$7,151,571.13	\$14,078,900.35
Textbooks	\$38,821,991.00	\$39,207,972.53	\$39,207,972.53	\$78,415,945.05
<b>Estimated Total State SOQ</b>	<b>\$2,506,119,395.00</b>	<b>\$3,003,938,150.89</b>	<b>\$3,103,976,859.18</b>	<b>\$6,107,915,010.08</b>
<b>Estimated Total Local SOQ</b>		<b>\$2,419,618,834.77</b>	<b>\$2,514,106,464.62</b>	<b>\$4,933,725,299.39</b>
<b>Estimated Total for Current SOQ Costs</b>		<b>\$6,258,014,564.94</b>	<b>\$6,452,540,903.08</b>	<b>\$12,710,555,468.01</b>
<b>State Op. Cost of Initiative Exceeding Current SOQ</b>				
<b>Local Op. Cost of Initiative Exceeding Current SOQ</b>				
<u>State Portion of Non-SOQ Costs</u>				
K-3 Primary Class Size	\$67,783,172.00	\$68,552,271.93	\$68,552,271.93	\$137,104,543.86
Additional Teachers	\$28,289,496.00	\$28,571,282.07	\$28,571,282.07	\$57,142,564.15
Other Teacher/Aide Accounts	\$34,707,078.00	\$35,147,247.56	\$35,147,247.56	\$70,294,495.12
At-Risk Four Year Olds	\$23,511,541.00	\$23,857,494.31	\$23,857,494.31	\$47,714,988.62
School Construction	\$54,999,991.00	\$55,226,157.75	\$55,226,157.75	\$110,452,315.51
Maintenance Supplement	\$9,507,425.00	\$9,602,604.87	\$9,602,604.87	\$19,205,209.74
Other Non-SOQ Costs	\$455,603,961.32	\$458,928,107.72	\$458,928,107.72	\$917,856,215.44
<b>Tot. State Non-SOQ Costs</b>	<b>\$674,402,664.32</b>	<b>\$679,885,166.21</b>	<b>\$679,885,166.21</b>	<b>\$1,359,770,332.43</b>
<b>Est. Local Non-SOQ Costs</b>		<b>\$373,961,474.74</b>	<b>\$373,961,474.74</b>	<b>\$747,922,949.48</b>
<b>STATE SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$4,518,280,896.38</b>	<b>\$4,618,319,604.67</b>	<b>\$9,136,600,501.05</b>
<b>LOCAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$2,793,580,309.51</b>	<b>\$2,888,067,939.36</b>	<b>\$5,681,648,248.87</b>
<b>TOTAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$7,311,861,205.89</b>	<b>\$7,506,387,544.03</b>	<b>\$14,818,248,749.92</b>

**Option 7-- Add-On Cost of Elementary Resource Teachers  
and 21 Secondary Teachers per 1000 ADM (plus Pop. Density Adjustment)**

**Table 1: Standards of Quality (SOQ) Cost Detail and Total Non-SOQ Costs**

	<u>FY 2003</u>	<u>FY 2004</u>	<u>Biennium Total</u>
<u>SOQ Instructional Personnel</u>			
Instructional Salaries:			
Basic Instructional Positions	\$2,177,485,907.04	\$2,258,174,687.44	\$4,435,660,594.48
Special Education Positions	\$542,882,322.45	\$561,926,429.49	\$1,104,808,751.94
Vocational Education Positions	\$215,823,755.64	\$223,143,775.77	\$438,967,531.41
Gifted & Talented Instructional Positions	\$45,783,257.92	\$47,593,354.24	\$93,376,612.16
Remedial Education Positions	\$63,411,962.71	\$65,410,108.93	\$128,822,071.64
Instructional Fringe Benefits	\$597,238,942.80	\$622,141,509.30	\$1,219,380,452.10
<i>Total for SOQ Instructional Personnel</i>	<i>\$3,642,626,148.57</i>	<i>\$3,778,389,865.16</i>	<i>\$7,421,016,013.73</i>
<u>SOQ Support</u>			
Support Salaries	\$871,070,368.32	\$895,528,449.64	\$1,766,598,817.96
Support Fringe Benefits	\$198,856,735.62	\$206,461,092.81	\$405,317,828.43
Support Non-Personnel Costs	\$1,475,378,658.19	\$1,502,078,841.23	\$2,977,457,499.43
Textbooks	\$70,082,654.24	\$70,082,654.24	\$140,165,308.47
<i>Total for SOQ Support</i>	<i>\$2,615,388,416.37</i>	<i>\$2,674,151,037.92</i>	<i>\$5,289,539,454.28</i>
<b>Estimated Total for Current SOQ Costs</b>	<b>\$6,258,014,564.94</b>	<b>\$6,452,540,903.08</b>	<b>\$12,710,555,468.01</b>
<b>Operating Cost of Initiative Exceeding Current SOQ</b>	<b>\$344,843,924.96</b>	<b>\$357,966,086.32</b>	<b>\$702,810,011.28</b>
<b>Estimated Total Non-SOQ Costs (State and Local)</b>	<b>\$1,053,846,640.95</b>	<b>\$1,053,846,640.95</b>	<b>\$2,107,693,281.91</b>
K-3 Primary Class Size	\$112,337,473.73	\$112,337,473.73	\$224,674,947.46
Additional Teachers	\$51,331,382.05	\$51,331,382.05	\$102,662,764.09
Other Teacher/Aide Accounts	\$64,632,626.63	\$64,632,626.63	\$129,265,253.25
At-Risk Four Year Olds	\$42,881,103.99	\$42,881,103.99	\$85,762,207.97
School Construction	\$77,977,765.79	\$77,977,765.79	\$155,955,531.58
Maintenance Supplement	\$17,164,078.63	\$17,164,078.63	\$34,328,157.26
Other Non-SOQ Costs	\$687,522,210.15	\$687,522,210.15	\$1,375,044,420.29
<b>TOTAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>	<b>\$7,656,705,130.85</b>	<b>\$7,864,353,630.35</b>	<b>\$15,521,058,761.20</b>

**Table 2: Apportionment of SOQ Costs and Non-SOQ Costs to State and Local Governments**

	<u>Current Year FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Biennium Total</u>
<b>State Sales Tax</b>	<b>\$834,457,579.27</b>	<b>\$834,457,579.27</b>	<b>\$834,457,579.27</b>	<b>\$1,668,915,158.55</b>
<u>State Portion of SOQ Costs</u>				
Basic Aid	\$1,945,055,576.00	\$2,211,173,047.86	\$2,287,098,280.86	\$4,498,271,328.72
Vocational Ed.	\$40,753,297.00	\$124,538,592.59	\$128,415,090.61	\$252,953,683.20
Special Ed	\$221,938,460.00	\$298,492,207.08	\$308,043,762.12	\$606,535,969.20
Gifted	\$23,217,155.00	\$25,307,759.31	\$26,241,382.05	\$51,549,141.36
Remedial	\$39,227,842.00	\$38,093,151.62	\$39,211,062.12	\$77,304,213.74
VRS Retirement	\$72,880,705.00	\$94,591,626.51	\$97,640,490.47	\$192,232,116.98
Social Security	\$119,226,259.00	\$165,606,464.18	\$170,967,247.30	\$336,573,711.47
Group Life	\$4,998,110.00	\$6,927,329.22	\$7,151,571.13	\$14,078,900.35
Textbooks	\$38,821,991.00	\$39,207,972.53	\$39,207,972.53	\$78,415,945.05
<b>Estimated Total State SOQ</b>	<b>\$2,506,119,395.00</b>	<b>\$3,003,938,150.89</b>	<b>\$3,103,976,859.18</b>	<b>\$6,107,915,010.08</b>
<b>Estimated Total Local SOQ</b>		<b>\$2,419,618,834.77</b>	<b>\$2,514,106,464.62</b>	<b>\$4,933,725,299.39</b>
<b>Estimated Total for Current SOQ Costs</b>		<b>\$6,258,014,564.94</b>	<b>\$6,452,540,903.08</b>	<b>\$12,710,555,468.01</b>
<b>State Op. Cost of Initiative Exceeding Current SOQ</b>		<b>\$190,673,797.18</b>	<b>\$197,415,100.92</b>	<b>\$388,088,898.11</b>
<b>Local Op. Cost of Initiative Exceeding Current SOQ</b>		<b>\$154,170,127.77</b>	<b>\$160,550,985.40</b>	<b>\$314,721,113.17</b>
<u>State Portion of Non-SOQ Costs</u>				
K-3 Primary Class Size	\$67,783,172.00	\$68,552,271.93	\$68,552,271.93	\$137,104,543.86
Additional Teachers	\$28,289,496.00	\$28,571,282.07	\$28,571,282.07	\$57,142,564.15
Other Teacher/Aide Accounts	\$34,707,078.00	\$35,147,247.56	\$35,147,247.56	\$70,294,495.12
At-Risk Four Year Olds	\$23,511,541.00	\$23,857,494.31	\$23,857,494.31	\$47,714,988.62
School Construction	\$54,999,991.00	\$55,226,157.75	\$55,226,157.75	\$110,452,315.51
Maintenance Supplement	\$9,507,425.00	\$9,602,604.87	\$9,602,604.87	\$19,205,209.74
Other Non-SOQ Costs	\$455,603,961.32	\$458,928,107.72	\$458,928,107.72	\$917,856,215.44
<b>Tot. State Non-SOQ Costs</b>	<b>\$674,402,664.32</b>	<b>\$679,885,166.21</b>	<b>\$679,885,166.21</b>	<b>\$1,359,770,332.43</b>
<b>Est. Local Non-SOQ Costs</b>		<b>\$373,961,474.74</b>	<b>\$373,961,474.74</b>	<b>\$747,922,949.48</b>
<b>STATE SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$4,708,954,693.56</b>	<b>\$4,815,734,705.60</b>	<b>\$9,524,689,399.16</b>
<b>LOCAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$2,947,750,437.29</b>	<b>\$3,048,618,924.75</b>	<b>\$5,996,369,362.04</b>
<b>TOTAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$7,656,705,130.85</b>	<b>\$7,864,353,630.35</b>	<b>\$15,521,058,761.20</b>



**Option 8 -- Prevailing Instructional Staffing Ratios  
and More At-Risk Pre-School (plus Pop. Density Adjustment)**

**Table 1: Standards of Quality (SOQ) Cost Detail and Total Non-SOQ Costs**

	<u>FY 2003</u>	<u>FY 2004</u>	<u>Biennium Total</u>
<u>SOQ Instructional Personnel</u>			
Instructional Salaries:			
Basic Instructional Positions	\$2,177,485,907.04	\$2,258,174,687.44	\$4,435,660,594.48
Special Education Positions	\$542,882,322.45	\$561,926,429.49	\$1,104,808,751.94
Vocational Education Positions	\$215,823,755.64	\$223,143,775.77	\$438,967,531.41
Gifted & Talented Instructional Positions	\$45,783,257.92	\$47,593,354.24	\$93,376,612.16
Remedial Education Positions	\$63,411,962.71	\$65,410,108.93	\$128,822,071.64
Instructional Fringe Benefits	\$597,238,942.80	\$622,141,509.30	\$1,219,380,452.10
<i>Total for SOQ Instructional Personnel</i>	<i>\$3,642,626,148.57</i>	<i>\$3,778,389,865.16</i>	<i>\$7,421,016,013.73</i>
<u>SOQ Support</u>			
Support Salaries	\$871,070,368.32	\$895,528,449.64	\$1,766,598,817.96
Support Fringe Benefits	\$198,856,735.62	\$206,461,092.81	\$405,317,828.43
Support Non-Personnel Costs	\$1,475,378,658.19	\$1,502,078,841.23	\$2,977,457,499.43
Textbooks	\$70,082,654.24	\$70,082,654.24	\$140,165,308.47
<i>Total for SOQ Support</i>	<i>\$2,615,388,416.37</i>	<i>\$2,674,151,037.92</i>	<i>\$5,289,539,454.28</i>
<b>Estimated Total for Current SOQ Costs</b>	<b>\$6,258,014,564.94</b>	<b>\$6,452,540,903.08</b>	<b>\$12,710,555,468.01</b>
<b>Operating Cost of Initiative Exceeding Current SOQ</b>	<b>\$658,359,139.53</b>	<b>\$683,193,803.53</b>	<b>\$1,341,552,943.05</b>
<b>Estimated Total Non-SOQ Costs (State and Local)</b>	<b>\$1,122,047,436.97</b>	<b>\$1,124,975,176.97</b>	<b>\$2,247,022,613.93</b>
K-3 Primary Class Size	\$112,337,473.73	\$112,337,473.73	\$224,674,947.46
Additional Teachers	\$51,331,382.05	\$51,331,382.05	\$102,662,764.09
Other Teacher/Aide Accounts	\$64,632,626.63	\$64,632,626.63	\$129,265,253.25
At-Risk Four Year Olds	\$42,881,103.99	\$42,881,103.99	\$85,762,207.97
<b>Additional At-Risk Pre-School</b>	<b>\$68,200,796.01</b>	<b>\$71,128,536.01</b>	<b>\$139,329,332.03</b>
School Construction	\$77,977,765.79	\$77,977,765.79	\$155,955,531.58
Maintenance Supplement	\$17,164,078.63	\$17,164,078.63	\$34,328,157.26
Other Non-SOQ Costs	\$687,522,210.15	\$687,522,210.15	\$1,375,044,420.29
<b>TOTAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>	<b>\$8,038,421,141.43</b>	<b>\$8,260,709,883.57</b>	<b>\$16,299,131,025.00</b>

**Table 2: Apportionment of SOQ Costs and Non-SOQ Costs to State and Local Governments**

	<u>Current Year FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Biennium Total</u>
<b>State Sales Tax</b>	<b>\$834,457,579.27</b>	<b>\$834,457,579.27</b>	<b>\$834,457,579.27</b>	<b>\$1,668,915,158.55</b>
<u>State Portion of SOQ Costs</u>				
Basic Aid	\$1,945,055,576.00	\$2,211,173,047.86	\$2,287,098,280.86	\$4,498,271,328.72
Vocational Ed.	\$40,753,297.00	\$124,538,592.59	\$128,415,090.61	\$252,953,683.20
Special Ed	\$221,938,460.00	\$298,492,207.08	\$308,043,762.12	\$606,535,969.20
Gifted	\$23,217,155.00	\$25,307,759.31	\$26,241,382.05	\$51,549,141.36
Remedial	\$39,227,842.00	\$38,093,151.62	\$39,211,062.12	\$77,304,213.74
VRS Retirement	\$72,880,705.00	\$94,591,626.51	\$97,640,490.47	\$192,232,116.98
Social Security	\$119,226,259.00	\$165,606,464.18	\$170,967,247.30	\$336,573,711.47
Group Life	\$4,998,110.00	\$6,927,329.22	\$7,151,571.13	\$14,078,900.35
Textbooks	\$38,821,991.00	\$39,207,972.53	\$39,207,972.53	\$78,415,945.05
<b>Estimated Total State SOQ</b>	<b>\$2,506,119,395.00</b>	<b>\$3,003,938,150.89</b>	<b>\$3,103,976,859.18</b>	<b>\$6,107,915,010.08</b>
<b>Estimated Total Local SOQ</b>		<b>\$2,419,618,834.77</b>	<b>\$2,514,106,464.62</b>	<b>\$4,933,725,299.39</b>
<b>Estimated Total for Current SOQ Costs</b>		<b>\$6,258,014,564.94</b>	<b>\$6,452,540,903.08</b>	<b>\$12,710,555,468.01</b>
<b>State Op. Cost of Initiative Exceeding Current SOQ</b>		<b>\$364,860,844.33</b>	<b>\$377,602,998.31</b>	<b>\$742,463,842.65</b>
<b>Local Op. Cost of Initiative Exceeding Current SOQ</b>		<b>\$293,498,295.19</b>	<b>\$305,590,805.21</b>	<b>\$599,089,100.41</b>
<u>State Portion of Non-SOQ Costs</u>				
K-3 Primary Class Size	\$67,783,172.00	\$68,552,271.93	\$68,552,271.93	\$137,104,543.86
Additional Teachers	\$28,289,496.00	\$28,571,282.07	\$28,571,282.07	\$57,142,564.15
Other Teacher/Aide Accounts	\$34,707,078.00	\$35,147,247.56	\$35,147,247.56	\$70,294,495.12
At-Risk Four Year Olds	\$23,511,541.00	\$23,857,494.31	\$23,857,494.31	\$47,714,988.62
<b>Additional At-Risk Pre-School</b>		<b>\$41,216,591.77</b>	<b>\$42,931,722.72</b>	<b>\$84,148,314.49</b>
School Construction	\$54,999,991.00	\$55,226,157.75	\$55,226,157.75	\$110,452,315.51
Maintenance Supplement	\$9,507,425.00	\$9,602,604.87	\$9,602,604.87	\$19,205,209.74
Other Non-SOQ Costs	\$455,603,961.32	\$458,928,107.72	\$458,928,107.72	\$917,856,215.44
<b>Tot. State Non-SOQ Costs</b>	<b>\$674,402,664.32</b>	<b>\$721,101,757.99</b>	<b>\$722,816,888.94</b>	<b>\$1,443,918,646.92</b>
<b>Est. Local Non-SOQ Costs</b>		<b>\$400,945,678.98</b>	<b>\$402,158,288.03</b>	<b>\$803,103,967.01</b>
<b>STATE SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$4,924,358,332.48</b>	<b>\$5,038,854,325.71</b>	<b>\$9,963,212,658.19</b>
<b>LOCAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$3,114,062,808.95</b>	<b>\$3,221,855,557.86</b>	<b>\$6,335,918,366.81</b>
<b>TOTAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$8,038,421,141.43</b>	<b>\$8,260,709,883.57</b>	<b>\$16,299,131,025.00</b>

## Option 9 -- Prevailing Debt Service (plus Pop. Density Adjustment)

**Table 1: Standards of Quality (SOQ) Cost Detail and Total Non-SOQ Costs**

	<u>FY 2003</u>	<u>FY 2004</u>	<u>Biennium Total</u>
<u>SOQ Instructional Personnel</u>			
Instructional Salaries:			
Basic Instructional Positions	\$2,177,485,907.04	\$2,258,174,687.44	\$4,435,660,594.48
Special Education Positions	\$542,882,322.45	\$561,926,429.49	\$1,104,808,751.94
Vocational Education Positions	\$215,823,755.64	\$223,143,775.77	\$438,967,531.41
Gifted & Talented Instructional Positions	\$45,783,257.92	\$47,593,354.24	\$93,376,612.16
Remedial Education Positions	\$63,411,962.71	\$65,410,108.93	\$128,822,071.64
Instructional Fringe Benefits	\$597,238,942.80	\$622,141,509.30	\$1,219,380,452.10
<i>Total for SOQ Instructional Personnel</i>	<i>\$3,642,626,148.57</i>	<i>\$3,778,389,865.16</i>	<i>\$7,421,016,013.73</i>
<u>SOQ Support</u>			
Support Salaries	\$871,070,368.32	\$895,528,449.64	\$1,766,598,817.96
Support Fringe Benefits	\$198,856,735.62	\$206,461,092.81	\$405,317,828.43
Support Non-Personnel Costs	\$1,475,378,658.19	\$1,502,078,841.23	\$2,977,457,499.43
Textbooks	\$70,082,654.24	\$70,082,654.24	\$140,165,308.47
<i>Total for SOQ Support</i>	<i>\$2,615,388,416.37</i>	<i>\$2,674,151,037.92</i>	<i>\$5,289,539,454.28</i>
<b>Estimated Total for Current SOQ Costs</b>	<b>\$6,258,014,564.94</b>	<b>\$6,452,540,903.08</b>	<b>\$12,710,555,468.01</b>
<b>Operating Cost of Initiative Exceeding Current SOQ</b>	<b>\$658,359,139.53</b>	<b>\$683,193,803.53</b>	<b>\$1,341,552,943.05</b>
<b>Estimated Total Non-SOQ Costs (State and Local)</b>	<b>\$1,405,981,472.38</b>	<b>\$1,423,951,744.69</b>	<b>\$2,829,933,217.07</b>
K-3 Primary Class Size	\$112,337,473.73	\$112,337,473.73	\$224,674,947.46
Additional Teachers	\$51,331,382.05	\$51,331,382.05	\$102,662,764.09
Other Teacher/Aide Accounts	\$64,632,626.63	\$64,632,626.63	\$129,265,253.25
At-Risk Four Year Olds	\$42,881,103.99	\$42,881,103.99	\$85,762,207.97
<b>Additional At-Risk Pre-School</b>	<b>\$68,200,796.01</b>	<b>\$71,128,536.01</b>	<b>\$139,329,332.03</b>
School Construction	\$77,977,765.79	\$77,977,765.79	\$155,955,531.58
<b>Additional Debt Service</b>	<b>\$283,934,035.41</b>	<b>\$298,976,567.72</b>	<b>\$582,910,603.13</b>
Maintenance Supplement	\$17,164,078.63	\$17,164,078.63	\$34,328,157.26
Other Non-SOQ Costs	\$687,522,210.15	\$687,522,210.15	\$1,375,044,420.29
<b>TOTAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>	<b>\$8,322,355,176.84</b>	<b>\$8,559,686,451.29</b>	<b>\$16,882,041,628.13</b>

**Table 2: Apportionment of SOQ Costs and Non-SOQ Costs to State and Local Governments**

	<u>Current Year FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Biennium Total</u>
<b>State Sales Tax</b>	<b>\$834,457,579.27</b>	<b>\$834,457,579.27</b>	<b>\$834,457,579.27</b>	<b>\$1,668,915,158.55</b>
<u>State Portion of SOQ Costs</u>				
Basic Aid	\$1,945,055,576.00	\$2,211,173,047.86	\$2,287,098,280.86	\$4,498,271,328.72
Vocational Ed.	\$40,753,297.00	\$124,538,592.59	\$128,415,090.61	\$252,953,683.20
Special Ed	\$221,938,460.00	\$298,492,207.08	\$308,043,762.12	\$606,535,969.20
Gifted	\$23,217,155.00	\$25,307,759.31	\$26,241,382.05	\$51,549,141.36
Remedial	\$39,227,842.00	\$38,093,151.62	\$39,211,062.12	\$77,304,213.74
VRS Retirement	\$72,880,705.00	\$94,591,626.51	\$97,640,490.47	\$192,232,116.98
Social Security	\$119,226,259.00	\$165,606,464.18	\$170,967,247.30	\$336,573,711.47
Group Life	\$4,998,110.00	\$6,927,329.22	\$7,151,571.13	\$14,078,900.35
Textbooks	\$38,821,991.00	\$39,207,972.53	\$39,207,972.53	\$78,415,945.05
<b>Estimated Total State SOQ</b>	<b>\$2,506,119,395.00</b>	<b>\$3,003,938,150.89</b>	<b>\$3,103,976,859.18</b>	<b>\$6,107,915,010.08</b>
<b>Estimated Total Local SOQ</b>		<b>\$2,419,618,834.77</b>	<b>\$2,514,106,464.62</b>	<b>\$4,933,725,299.39</b>
<b>Estimated Total for Current SOQ Costs</b>		<b>\$6,258,014,564.94</b>	<b>\$6,452,540,903.08</b>	<b>\$12,710,555,468.01</b>
<b>State Op. Cost of Initiative Exceeding Current SOQ</b>		<b>\$364,860,844.33</b>	<b>\$377,602,998.31</b>	<b>\$742,463,842.65</b>
<b>Local Op. Cost of Initiative Exceeding Current SOQ</b>		<b>\$293,498,295.19</b>	<b>\$305,590,805.21</b>	<b>\$599,089,100.41</b>
<u>State Portion of Non-SOQ Costs</u>				
K-3 Primary Class Size	\$67,783,172.00	\$68,552,271.93	\$68,552,271.93	\$137,104,543.86
Additional Teachers	\$28,289,496.00	\$28,571,282.07	\$28,571,282.07	\$57,142,564.15
Other Teacher/Aide Accounts	\$34,707,078.00	\$35,147,247.56	\$35,147,247.56	\$70,294,495.12
At-Risk Four Year Olds	\$23,511,541.00	\$23,857,494.31	\$23,857,494.31	\$47,714,988.62
<b>Additional At-Risk Pre-School</b>		<b>\$41,216,591.77</b>	<b>\$42,931,722.72</b>	<b>\$84,148,314.49</b>
School Construction	\$54,999,991.00	\$55,226,157.75	\$55,226,157.75	\$110,452,315.51
<b>Additional Debt Service</b>		<b>\$141,967,017.71</b>	<b>\$149,488,283.86</b>	<b>\$291,455,301.57</b>
Maintenance Supplement	\$9,507,425.00	\$9,602,604.87	\$9,602,604.87	\$19,205,209.74
Other Non-SOQ Costs	\$455,603,961.32	\$458,928,107.72	\$458,928,107.72	\$917,856,215.44
<b>Tot. State Non-SOQ Costs</b>	<b>\$674,402,664.32</b>	<b>\$863,068,775.69</b>	<b>\$872,305,172.80</b>	<b>\$1,735,373,948.49</b>
<b>Est. Local Non-SOQ Costs</b>		<b>\$542,912,696.69</b>	<b>\$551,646,571.89</b>	<b>\$1,094,559,268.58</b>
<b>STATE SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$5,066,325,350.19</b>	<b>\$5,188,342,609.57</b>	<b>\$10,254,667,959.76</b>
<b>LOCAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$3,256,029,826.66</b>	<b>\$3,371,343,841.72</b>	<b>\$6,627,373,668.38</b>
<b>TOTAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$8,322,355,176.84</b>	<b>\$8,559,686,451.29</b>	<b>\$16,882,041,628.13</b>

**Option 10 -- Varying Teacher Salaries (plus Pop. Dens. Adjustment)**  
**with Linear Weighted Average Floor, Statewide Average Ceiling**

**Table 1: Standards of Quality (SOQ) Cost Detail and Total Non-SOQ Costs**

	<u>FY 2003</u>	<u>FY 2004</u>	<u>Biennium Total</u>
<u>SOQ Instructional Personnel</u>			
Instructional Salaries:			
Basic Instructional Positions	\$2,177,485,907.04	\$2,258,174,687.44	\$4,435,660,594.48
Special Education Positions	\$542,882,322.45	\$561,926,429.49	\$1,104,808,751.94
Vocational Education Positions	\$215,823,755.64	\$223,143,775.77	\$438,967,531.41
Gifted & Talented Instructional Positions	\$45,783,257.92	\$47,593,354.24	\$93,376,612.16
Remedial Education Positions	\$63,411,962.71	\$65,410,108.93	\$128,822,071.64
Instructional Fringe Benefits	\$597,238,942.80	\$622,141,509.30	\$1,219,380,452.10
<i>Total for SOQ Instructional Personnel</i>	<i>\$3,642,626,148.57</i>	<i>\$3,778,389,865.16</i>	<i>\$7,421,016,013.73</i>
<u>SOQ Support</u>			
Support Salaries	\$871,070,368.32	\$895,528,449.64	\$1,766,598,817.96
Support Fringe Benefits	\$198,856,735.62	\$206,461,092.81	\$405,317,828.43
Support Non-Personnel Costs	\$1,475,378,658.19	\$1,502,078,841.23	\$2,977,457,499.43
Textbooks	\$70,082,654.24	\$70,082,654.24	\$140,165,308.47
<i>Total for SOQ Support</i>	<i>\$2,615,388,416.37</i>	<i>\$2,674,151,037.92</i>	<i>\$5,289,539,454.28</i>
<b>Estimated Total for Current SOQ Costs</b>	<b>\$6,258,014,564.94</b>	<b>\$6,452,540,903.08</b>	<b>\$12,710,555,468.01</b>
<b>Operating Cost of Initiative Exceeding Current SOQ</b>	<b>\$880,704,620.25</b>	<b>\$914,832,393.96</b>	<b>\$1,795,537,014.21</b>
<b>Estimated Total Non-SOQ Costs (State and Local)</b>	<b>\$1,405,981,472.38</b>	<b>\$1,423,951,744.69</b>	<b>\$2,829,933,217.07</b>
K-3 Primary Class Size	\$112,337,473.73	\$112,337,473.73	\$224,674,947.46
Additional Teachers	\$51,331,382.05	\$51,331,382.05	\$102,662,764.09
Other Teacher/Aide Accounts	\$64,632,626.63	\$64,632,626.63	\$129,265,253.25
At-Risk Four Year Olds	\$42,881,103.99	\$42,881,103.99	\$85,762,207.97
<b>Additional At-Risk Pre-School</b>	<b>\$68,200,796.01</b>	<b>\$71,128,536.01</b>	<b>\$139,329,332.03</b>
School Construction	\$77,977,765.79	\$77,977,765.79	\$155,955,531.58
<b>Additional Debt Service</b>	<b>\$283,934,035.41</b>	<b>\$298,976,567.72</b>	<b>\$582,910,603.13</b>
Maintenance Supplement	\$17,164,078.63	\$17,164,078.63	\$34,328,157.26
Other Non-SOQ Costs	\$687,522,210.15	\$687,522,210.15	\$1,375,044,420.29
<b>TOTAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>	<b>\$8,544,700,657.57</b>	<b>\$8,791,325,041.72</b>	<b>\$17,336,025,699.29</b>

**Table 2: Apportionment of SOQ Costs and Non-SOQ Costs to State and Local Governments**

	<u>Current Year FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Biennium Total</u>
<b>State Sales Tax</b>	<b>\$834,457,579.27</b>	<b>\$834,457,579.27</b>	<b>\$834,457,579.27</b>	<b>\$1,668,915,158.55</b>
<u>State Portion of SOQ Costs</u>				
Basic Aid	\$1,945,055,576.00	\$2,211,173,047.86	\$2,287,098,280.86	\$4,498,271,328.72
Vocational Ed.	\$40,753,297.00	\$124,538,592.59	\$128,415,090.61	\$252,953,683.20
Special Ed	\$221,938,460.00	\$298,492,207.08	\$308,043,762.12	\$606,535,969.20
Gifted	\$23,217,155.00	\$25,307,759.31	\$26,241,382.05	\$51,549,141.36
Remedial	\$39,227,842.00	\$38,093,151.62	\$39,211,062.12	\$77,304,213.74
VRS Retirement	\$72,880,705.00	\$94,591,626.51	\$97,640,490.47	\$192,232,116.98
Social Security	\$119,226,259.00	\$165,606,464.18	\$170,967,247.30	\$336,573,711.47
Group Life	\$4,998,110.00	\$6,927,329.22	\$7,151,571.13	\$14,078,900.35
Textbooks	\$38,821,991.00	\$39,207,972.53	\$39,207,972.53	\$78,415,945.05
<b>Estimated Total State SOQ</b>	<b>\$2,506,119,395.00</b>	<b>\$3,003,938,150.89</b>	<b>\$3,103,976,859.18</b>	<b>\$6,107,915,010.08</b>
<b>Estimated Total Local SOQ</b>		<b>\$2,419,618,834.77</b>	<b>\$2,514,106,464.62</b>	<b>\$4,933,725,299.39</b>
<b>Estimated Total for Current SOQ Costs</b>		<b>\$6,258,014,564.94</b>	<b>\$6,452,540,903.08</b>	<b>\$12,710,555,468.01</b>
<b>State Op. Cost of Initiative Exceeding Current SOQ</b>		<b>\$473,949,478.83</b>	<b>\$490,990,807.05</b>	<b>\$964,940,285.88</b>
<b>Local Op. Cost of Initiative Exceeding Current SOQ</b>		<b>\$406,755,141.42</b>	<b>\$423,841,586.91</b>	<b>\$830,596,728.33</b>
<u>State Portion of Non-SOQ Costs</u>				
K-3 Primary Class Size	\$67,783,172.00	\$68,552,271.93	\$68,552,271.93	\$137,104,543.86
Additional Teachers	\$28,289,496.00	\$28,571,282.07	\$28,571,282.07	\$57,142,564.15
Other Teacher/Aide Accounts	\$34,707,078.00	\$35,147,247.56	\$35,147,247.56	\$70,294,495.12
At-Risk Four Year Olds	\$23,511,541.00	\$23,857,494.31	\$23,857,494.31	\$47,714,988.62
<b>Additional At-Risk Pre-School</b>		<b>\$41,216,591.77</b>	<b>\$42,931,722.72</b>	<b>\$84,148,314.49</b>
School Construction	\$54,999,991.00	\$55,226,157.75	\$55,226,157.75	\$110,452,315.51
<b>Additional Debt Service</b>		<b>\$141,967,017.71</b>	<b>\$149,488,283.86</b>	<b>\$291,455,301.57</b>
Maintenance Supplement	\$9,507,425.00	\$9,602,604.87	\$9,602,604.87	\$19,205,209.74
Other Non-SOQ Costs	\$455,603,961.32	\$458,928,107.72	\$458,928,107.72	\$917,856,215.44
<b>Tot. State Non-SOQ Costs</b>	<b>\$674,402,664.32</b>	<b>\$863,068,775.69</b>	<b>\$872,305,172.80</b>	<b>\$1,735,373,948.49</b>
<b>Est. Local Non-SOQ Costs</b>		<b>\$542,912,696.69</b>	<b>\$551,646,571.89</b>	<b>\$1,094,559,268.58</b>
<b>STATE SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$5,175,413,984.68</b>	<b>\$5,301,730,418.30</b>	<b>\$10,477,144,402.99</b>
<b>LOCAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$3,369,286,672.88</b>	<b>\$3,489,594,623.42</b>	<b>\$6,858,881,296.30</b>
<b>TOTAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$8,544,700,657.57</b>	<b>\$8,791,325,041.72</b>	<b>\$17,336,025,699.29</b>

## Option 11 -- Meeting SOQ Costs (with Combined Local Share Adjustment)

**Table 1: Standards of Quality (SOQ) Cost Detail and Total Non-SOQ Costs**

	<u>FY 2003</u>	<u>FY 2004</u>	<u>Biennium Total</u>
<u>SOQ Instructional Personnel</u>			
Instructional Salaries:			
Basic Instructional Positions	\$2,177,485,907.04	\$2,258,174,687.44	\$4,435,660,594.48
Special Education Positions	\$542,882,322.45	\$561,926,429.49	\$1,104,808,751.94
Vocational Education Positions	\$215,823,755.64	\$223,143,775.77	\$438,967,531.41
Gifted & Talented Instructional Positions	\$45,783,257.92	\$47,593,354.24	\$93,376,612.16
Remedial Education Positions	\$63,411,962.71	\$65,410,108.93	\$128,822,071.64
Instructional Fringe Benefits	\$597,238,942.80	\$622,141,509.30	\$1,219,380,452.10
<i>Total for SOQ Instructional Personnel</i>	<i>\$3,642,626,148.57</i>	<i>\$3,778,389,865.16</i>	<i>\$7,421,016,013.73</i>
<u>SOQ Support</u>			
Support Salaries	\$871,070,368.32	\$895,528,449.64	\$1,766,598,817.96
Support Fringe Benefits	\$198,856,735.62	\$206,461,092.81	\$405,317,828.43
Support Non-Personnel Costs	\$1,475,378,658.19	\$1,502,078,841.23	\$2,977,457,499.43
Textbooks	\$70,082,654.24	\$70,082,654.24	\$140,165,308.47
<i>Total for SOQ Support</i>	<i>\$2,615,388,416.37</i>	<i>\$2,674,151,037.92</i>	<i>\$5,289,539,454.28</i>
<b>Estimated Total for Current SOQ Costs</b>	<b>\$6,258,014,564.94</b>	<b>\$6,452,540,903.08</b>	<b>\$12,710,555,468.01</b>
<b>Operating Cost of Initiative Exceeding Current SOQ</b>			
<b>Estimated Total Non-SOQ Costs (State and Local)</b>	<b>\$1,053,846,640.95</b>	<b>\$1,053,846,640.95</b>	<b>\$2,107,693,281.91</b>
K-3 Primary Class Size	\$112,337,473.73	\$112,337,473.73	\$224,674,947.46
Additional Teachers	\$51,331,382.05	\$51,331,382.05	\$102,662,764.09
Other Teacher/Aide Accounts	\$64,632,626.63	\$64,632,626.63	\$129,265,253.25
At-Risk Four Year Olds	\$42,881,103.99	\$42,881,103.99	\$85,762,207.97
School Construction	\$77,977,765.79	\$77,977,765.79	\$155,955,531.58
Maintenance Supplement	\$17,164,078.63	\$17,164,078.63	\$34,328,157.26
Other Non-SOQ Costs	\$687,522,210.15	\$687,522,210.15	\$1,375,044,420.29
<b>TOTAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>	<b>\$7,311,861,205.89</b>	<b>\$7,506,387,544.03</b>	<b>\$14,818,248,749.92</b>

**Table 2: Apportionment of SOQ Costs and Non-SOQ Costs to State and Local Governments**

	<u>Current Year FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Biennium Total</u>
<b>State Sales Tax</b>	<b>\$834,457,579.27</b>	<b>\$834,457,579.27</b>	<b>\$834,457,579.27</b>	<b>\$1,668,915,158.55</b>
<u>State Portion of SOQ Costs</u>				
Basic Aid	\$1,945,055,576.00	\$2,226,455,703.35	\$2,302,718,708.82	\$4,529,174,412.17
Vocational Ed.	\$40,753,297.00	\$125,344,714.32	\$129,239,140.58	\$254,583,854.90
Special Ed	\$221,938,460.00	\$300,999,611.18	\$310,607,229.52	\$611,606,840.70
Gifted	\$23,217,155.00	\$25,485,228.18	\$26,422,659.46	\$55,190,887.64
Remedial	\$39,227,842.00	\$38,380,961.87	\$39,504,414.59	\$77,885,376.46
VRS Retirement	\$72,880,705.00	\$95,269,551.15	\$98,334,019.63	\$193,603,570.79
Social Security	\$119,226,259.00	\$166,793,941.32	\$172,181,956.43	\$338,975,897.75
Group Life	\$4,998,110.00	\$6,977,001.47	\$7,202,382.49	\$14,179,383.96
Textbooks	\$38,821,991.00	\$39,481,845.48	\$39,481,845.48	\$78,963,690.97
<b>Estimated Total State SOQ</b>	<b>\$2,506,119,395.00</b>	<b>\$3,025,188,558.33</b>	<b>\$3,125,692,357.00</b>	<b>\$6,150,880,915.34</b>
<b>Estimated Total Local SOQ</b>		<b>\$2,398,368,427.33</b>	<b>\$2,492,390,966.80</b>	<b>\$4,890,759,394.13</b>
<b>Estimated Total for Current SOQ Costs</b>		<b>\$6,258,014,564.94</b>	<b>\$6,452,540,903.08</b>	<b>\$12,710,555,468.01</b>
<b>State Op. Cost of Initiative Exceeding Current SOQ</b>				
<b>Local Op. Cost of Initiative Exceeding Current SOQ</b>				
<u>State Portion of Non-SOQ Costs</u>				
K-3 Primary Class Size	\$67,783,172.00	\$69,231,278.16	\$69,231,278.16	\$138,462,556.32
Additional Teachers	\$28,289,496.00	\$28,779,401.34	\$28,779,401.34	\$57,558,802.67
Other Teacher/Aide Accounts	\$34,707,078.00	\$35,518,735.87	\$35,518,735.87	\$71,037,471.75
At-Risk Four Year Olds	\$23,511,541.00	\$24,121,646.36	\$24,121,646.36	\$48,243,292.72
School Construction	\$54,999,991.00	\$55,461,095.03	\$55,461,095.03	\$110,922,190.05
Maintenance Supplement	\$9,507,425.00	\$9,669,671.66	\$9,669,671.66	\$19,339,343.32
Other Non-SOQ Costs	\$455,603,961.32	\$461,540,091.55	\$461,540,091.55	\$923,080,183.10
<b>Tot. State Non-SOQ Costs</b>	<b>\$674,402,664.32</b>	<b>\$684,321,919.97</b>	<b>\$684,321,919.97</b>	<b>\$1,368,643,839.93</b>
<b>Est. Local Non-SOQ Costs</b>		<b>\$369,524,720.99</b>	<b>\$369,524,720.99</b>	<b>\$739,049,441.97</b>
<b>STATE SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$4,543,968,057.58</b>	<b>\$4,644,471,856.24</b>	<b>\$9,188,439,913.82</b>
<b>LOCAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$2,767,893,148.32</b>	<b>\$2,861,915,687.79</b>	<b>\$5,629,808,836.10</b>
<b>TOTAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$7,311,861,205.89</b>	<b>\$7,506,387,544.03</b>	<b>\$14,818,248,749.92</b>

**Option 12 -- Add-On Cost of Elementary Resource Teachers  
and 21 Secondary Teachers per 1000 ADM (plus Combined Local Share Adjustment)**

**Table 1: Standards of Quality (SOQ) Cost Detail and Total Non-SOQ Costs**

	<u>FY 2003</u>	<u>FY 2004</u>	<u>Biennium Total</u>
<u>SOQ Instructional Personnel</u>			
Instructional Salaries:			
Basic Instructional Positions	\$2,177,485,907.04	\$2,258,174,687.44	\$4,435,660,594.48
Special Education Positions	\$542,882,322.45	\$561,926,429.49	\$1,104,808,751.94
Vocational Education Positions	\$215,823,755.64	\$223,143,775.77	\$438,967,531.41
Gifted & Talented Instructional Positions	\$45,783,257.92	\$47,593,354.24	\$93,376,612.16
Remedial Education Positions	\$63,411,962.71	\$65,410,108.93	\$128,822,071.64
Instructional Fringe Benefits	\$597,238,942.80	\$622,141,509.30	\$1,219,380,452.10
<i>Total for SOQ Instructional Personnel</i>	<i>\$3,642,626,148.57</i>	<i>\$3,778,389,865.16</i>	<i>\$7,421,016,013.73</i>
<u>SOQ Support</u>			
Support Salaries	\$871,070,368.32	\$895,528,449.64	\$1,766,598,817.96
Support Fringe Benefits	\$198,856,735.62	\$206,461,092.81	\$405,317,828.43
Support Non-Personnel Costs	\$1,475,378,658.19	\$1,502,078,841.23	\$2,977,457,499.43
Textbooks	\$70,082,654.24	\$70,082,654.24	\$140,165,308.47
<i>Total for SOQ Support</i>	<i>\$2,615,388,416.37</i>	<i>\$2,674,151,037.92</i>	<i>\$5,289,539,454.28</i>
<b>Estimated Total for Current SOQ Costs</b>	<b>\$6,258,014,564.94</b>	<b>\$6,452,540,903.08</b>	<b>\$12,710,555,468.01</b>
<b>Operating Cost of Initiative Exceeding Current SOQ</b>	<b>\$344,843,924.96</b>	<b>\$357,966,086.32</b>	<b>\$702,810,011.28</b>
<b>Estimated Total Non-SOQ Costs (State and Local)</b>	<b>\$1,053,846,640.95</b>	<b>\$1,053,846,640.95</b>	<b>\$2,107,693,281.91</b>
K-3 Primary Class Size	\$112,337,473.73	\$112,337,473.73	\$224,674,947.46
Additional Teachers	\$51,331,382.05	\$51,331,382.05	\$102,662,764.09
Other Teacher/Aide Accounts	\$64,632,626.63	\$64,632,626.63	\$129,265,253.25
At-Risk Four Year Olds	\$42,881,103.99	\$42,881,103.99	\$85,762,207.97
School Construction	\$77,977,765.79	\$77,977,765.79	\$155,955,531.58
Maintenance Supplement	\$17,164,078.63	\$17,164,078.63	\$34,328,157.26
Other Non-SOQ Costs	\$687,522,210.15	\$687,522,210.15	\$1,375,044,420.29
<b>TOTAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>	<b>\$7,656,705,130.85</b>	<b>\$7,864,353,630.35</b>	<b>\$15,521,058,761.20</b>

**Table 2: Apportionment of SOQ Costs and Non-SOQ Costs to State and Local Governments**

	<u>Current Year FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Biennium Total</u>
<b>State Sales Tax</b>	<b>\$834,457,579.27</b>	<b>\$834,457,579.27</b>	<b>\$834,457,579.27</b>	<b>\$1,668,915,158.55</b>
<u>State Portion of SOQ Costs</u>				
Basic Aid	\$1,945,055,576.00	\$2,226,455,703.35	\$2,302,718,708.82	\$4,529,174,412.17
Vocational Ed.	\$40,753,297.00	\$125,344,714.32	\$129,239,140.58	\$254,583,854.90
Special Ed	\$221,938,460.00	\$300,999,611.18	\$310,607,229.52	\$611,606,840.70
Gifted	\$23,217,155.00	\$25,485,228.18	\$26,422,659.46	\$51,907,887.64
Remedial	\$39,227,842.00	\$38,380,961.87	\$39,504,414.59	\$77,885,376.46
VRS Retirement	\$72,880,705.00	\$95,269,551.15	\$98,334,019.63	\$193,603,570.79
Social Security	\$119,226,259.00	\$166,793,941.32	\$172,181,956.43	\$338,975,897.75
Group Life	\$4,998,110.00	\$6,977,001.47	\$7,202,382.49	\$14,179,383.96
Textbooks	\$38,821,991.00	\$39,481,845.48	\$39,481,845.48	\$78,963,690.97
<b>Estimated Total State SOQ</b>	<b>\$2,506,119,395.00</b>	<b>\$3,025,188,558.33</b>	<b>\$3,125,692,357.00</b>	<b>\$6,150,880,915.34</b>
<b>Estimated Total Local SOQ</b>		<b>\$2,398,368,427.33</b>	<b>\$2,492,390,966.80</b>	<b>\$4,890,759,394.13</b>
<b>Estimated Total for Current SOQ Costs</b>		<b>\$6,258,014,564.94</b>	<b>\$6,452,540,903.08</b>	<b>\$12,710,555,468.01</b>
<b>State Op. Cost of Initiative Exceeding Current SOQ</b>		<b>\$191,998,115.55</b>	<b>\$198,767,999.79</b>	<b>\$390,766,115.33</b>
<b>Local Op. Cost of Initiative Exceeding Current SOQ</b>		<b>\$152,845,809.41</b>	<b>\$159,198,086.53</b>	<b>\$312,043,895.95</b>
<u>State Portion of Non-SOQ Costs</u>				
K-3 Primary Class Size	\$67,783,172.00	\$69,231,278.16	\$69,231,278.16	\$138,462,556.32
Additional Teachers	\$28,289,496.00	\$28,779,401.34	\$28,779,401.34	\$57,558,802.67
Other Teacher/Aide Accounts	\$34,707,078.00	\$35,518,735.87	\$35,518,735.87	\$71,037,471.75
At-Risk Four Year Olds	\$23,511,541.00	\$24,121,646.36	\$24,121,646.36	\$48,243,292.72
School Construction	\$54,999,991.00	\$55,461,095.03	\$55,461,095.03	\$110,922,190.05
Maintenance Supplement	\$9,507,425.00	\$9,669,671.66	\$9,669,671.66	\$19,339,343.32
Other Non-SOQ Costs	\$455,603,961.32	\$461,540,091.55	\$461,540,091.55	\$923,080,183.10
<b>Tot. State Non-SOQ Costs</b>	<b>\$674,402,664.32</b>	<b>\$684,321,919.97</b>	<b>\$684,321,919.97</b>	<b>\$1,368,643,839.93</b>
<b>Est. Local Non-SOQ Costs</b>		<b>\$369,524,720.99</b>	<b>\$369,524,720.99</b>	<b>\$739,049,441.97</b>
<b>STATE SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$4,735,966,173.12</b>	<b>\$4,843,239,856.03</b>	<b>\$9,579,206,029.15</b>
<b>LOCAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$2,920,738,957.73</b>	<b>\$3,021,113,774.32</b>	<b>\$5,941,852,732.05</b>
<b>TOTAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$7,656,705,130.85</b>	<b>\$7,864,353,630.35</b>	<b>\$15,521,058,761.20</b>

**Option 13 -- Prevailing Instructional Staffing Ratios  
and More At-Risk Pre-School (plus Combined Local Share Adjustment)**

**Table 1: Standards of Quality (SOQ) Cost Detail and Total Non-SOQ Costs**

	<u>FY 2003</u>	<u>FY 2004</u>	<u>Biennium Total</u>
<u>SOQ Instructional Personnel</u>			
Instructional Salaries:			
Basic Instructional Positions	\$2,177,485,907.04	\$2,258,174,687.44	\$4,435,660,594.48
Special Education Positions	\$542,882,322.45	\$561,926,429.49	\$1,104,808,751.94
Vocational Education Positions	\$215,823,755.64	\$223,143,775.77	\$438,967,531.41
Gifted & Talented Instructional Positions	\$45,783,257.92	\$47,593,354.24	\$93,376,612.16
Remedial Education Positions	\$63,411,962.71	\$65,410,108.93	\$128,822,071.64
Instructional Fringe Benefits	\$597,238,942.80	\$622,141,509.30	\$1,219,380,452.10
<i>Total for SOQ Instructional Personnel</i>	<i>\$3,642,626,148.57</i>	<i>\$3,778,389,865.16</i>	<i>\$7,421,016,013.73</i>
<u>SOQ Support</u>			
Support Salaries	\$871,070,368.32	\$895,528,449.64	\$1,766,598,817.96
Support Fringe Benefits	\$198,856,735.62	\$206,461,092.81	\$405,317,828.43
Support Non-Personnel Costs	\$1,475,378,658.19	\$1,502,078,841.23	\$2,977,457,499.43
Textbooks	\$70,082,654.24	\$70,082,654.24	\$140,165,308.47
<i>Total for SOQ Support</i>	<i>\$2,615,388,416.37</i>	<i>\$2,674,151,037.92</i>	<i>\$5,289,539,454.28</i>
<b>Estimated Total for Current SOQ Costs</b>	<b>\$6,258,014,564.94</b>	<b>\$6,452,540,903.08</b>	<b>\$12,710,555,468.01</b>
<b>Operating Cost of Initiative Exceeding Current SOQ</b>	<b>\$658,359,139.53</b>	<b>\$683,193,803.53</b>	<b>\$1,341,552,943.05</b>
<b>Estimated Total Non-SOQ Costs (State and Local)</b>	<b>\$1,122,047,436.97</b>	<b>\$1,124,975,176.97</b>	<b>\$2,247,022,613.93</b>
K-3 Primary Class Size	\$112,337,473.73	\$112,337,473.73	\$224,674,947.46
Additional Teachers	\$51,331,382.05	\$51,331,382.05	\$102,662,764.09
Other Teacher/Aide Accounts	\$64,632,626.63	\$64,632,626.63	\$129,265,253.25
At-Risk Four Year Olds	\$42,881,103.99	\$42,881,103.99	\$85,762,207.97
<b>Additional At-Risk Pre-School</b>	<b>\$68,200,796.01</b>	<b>\$71,128,536.01</b>	<b>\$139,329,332.03</b>
School Construction	\$77,977,765.79	\$77,977,765.79	\$155,955,531.58
Maintenance Supplement	\$17,164,078.63	\$17,164,078.63	\$34,328,157.26
Other Non-SOQ Costs	\$687,522,210.15	\$687,522,210.15	\$1,375,044,420.29
<b>TOTAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>	<b>\$8,038,421,141.43</b>	<b>\$8,260,709,883.57</b>	<b>\$16,299,131,025.00</b>

**Table 2: Apportionment of SOQ Costs and Non-SOQ Costs to State and Local Governments**

	<u>Current Year FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Biennium Total</u>
<b>State Sales Tax</b>	<b>\$834,457,579.27</b>	<b>\$834,457,579.27</b>	<b>\$834,457,579.27</b>	<b>\$1,668,915,158.55</b>
<u>State Portion of SOQ Costs</u>				
Basic Aid	\$1,945,055,576.00	\$2,226,455,703.35	\$2,302,718,708.82	\$4,529,174,412.17
Vocational Ed.	\$40,753,297.00	\$125,344,714.32	\$129,239,140.58	\$254,583,854.90
Special Ed	\$221,938,460.00	\$300,999,611.18	\$310,607,229.52	\$611,606,840.70
Gifted	\$23,217,155.00	\$25,485,228.18	\$26,422,659.46	\$51,907,887.64
Remedial	\$39,227,842.00	\$38,380,961.87	\$39,504,414.59	\$77,885,376.46
VRS Retirement	\$72,880,705.00	\$95,269,551.15	\$98,334,019.63	\$193,603,570.79
Social Security	\$119,226,259.00	\$166,793,941.32	\$172,181,956.43	\$338,975,897.75
Group Life	\$4,998,110.00	\$6,977,001.47	\$7,202,382.49	\$14,179,383.96
Textbooks	\$38,821,991.00	\$39,481,845.48	\$39,481,845.48	\$78,963,690.97
<b>Estimated Total State SOQ</b>	<b>\$2,506,119,395.00</b>	<b>\$3,025,188,558.33</b>	<b>\$3,125,692,357.00</b>	<b>\$6,150,880,915.34</b>
<b>Estimated Total Local SOQ</b>		<b>\$2,398,368,427.33</b>	<b>\$2,492,390,966.80</b>	<b>\$4,890,759,394.13</b>
<b>Estimated Total for Current SOQ Costs</b>		<b>\$6,258,014,564.94</b>	<b>\$6,452,540,903.08</b>	<b>\$12,710,555,468.01</b>
<b>State Op. Cost of Initiative Exceeding Current SOQ</b>		<b>\$367,489,718.24</b>	<b>\$380,289,605.16</b>	<b>\$747,779,323.40</b>
<b>Local Op. Cost of Initiative Exceeding Current SOQ</b>		<b>\$290,869,421.29</b>	<b>\$302,904,198.36</b>	<b>\$593,773,619.65</b>
<u>State Portion of Non-SOQ Costs</u>				
K-3 Primary Class Size	\$67,783,172.00	\$69,231,278.16	\$69,231,278.16	\$138,462,556.32
Additional Teachers	\$28,289,496.00	\$28,779,401.34	\$28,779,401.34	\$57,558,802.67
Other Teacher/Aide Accounts	\$34,707,078.00	\$35,518,735.87	\$35,518,735.87	\$71,037,471.75
At-Risk Four Year Olds	\$23,511,541.00	\$24,121,646.36	\$24,121,646.36	\$48,243,292.72
<b>Additional At-Risk Pre-School</b>		<b>\$41,651,235.96</b>	<b>\$43,384,784.79</b>	<b>\$85,036,020.75</b>
School Construction	\$54,999,991.00	\$55,461,095.03	\$55,461,095.03	\$110,922,190.05
Maintenance Supplement	\$9,507,425.00	\$9,669,671.66	\$9,669,671.66	\$19,339,343.32
Other Non-SOQ Costs	\$455,603,961.32	\$461,540,091.55	\$461,540,091.55	\$923,080,183.10
<b>Tot. State Non-SOQ Costs</b>	<b>\$674,402,664.32</b>	<b>\$725,973,155.92</b>	<b>\$727,706,704.76</b>	<b>\$1,453,679,860.68</b>
<b>Est. Local Non-SOQ Costs</b>		<b>\$396,074,281.04</b>	<b>\$397,268,472.21</b>	<b>\$793,342,753.25</b>
<b>STATE SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$4,953,109,011.77</b>	<b>\$5,068,146,246.20</b>	<b>\$10,021,255,257.97</b>
<b>LOCAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$3,085,312,129.66</b>	<b>\$3,192,563,637.37</b>	<b>\$6,277,875,767.03</b>
<b>TOTAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$8,038,421,141.43</b>	<b>\$8,260,709,883.57</b>	<b>\$16,299,131,025.00</b>

## Option 14 -- Prevailing Debt Service (plus Combined Local Share Adjustment)

**Table 1: Standards of Quality (SOQ) Cost Detail and Total Non-SOQ Costs**

	<u>FY 2003</u>	<u>FY 2004</u>	<u>Biennium Total</u>
<u>SOQ Instructional Personnel</u>			
Instructional Salaries:			
Basic Instructional Positions	\$2,177,485,907.04	\$2,258,174,687.44	\$4,435,660,594.48
Special Education Positions	\$542,882,322.45	\$561,926,429.49	\$1,104,808,751.94
Vocational Education Positions	\$215,823,755.64	\$223,143,775.77	\$438,967,531.41
Gifted & Talented Instructional Positions	\$45,783,257.92	\$47,593,354.24	\$93,376,612.16
Remedial Education Positions	\$63,411,962.71	\$65,410,108.93	\$128,822,071.64
Instructional Fringe Benefits	\$597,238,942.80	\$622,141,509.30	\$1,219,380,452.10
<i>Total for SOQ Instructional Personnel</i>	<i>\$3,642,626,148.57</i>	<i>\$3,778,389,865.16</i>	<i>\$7,421,016,013.73</i>
<u>SOQ Support</u>			
Support Salaries	\$871,070,368.32	\$895,528,449.64	\$1,766,598,817.96
Support Fringe Benefits	\$198,856,735.62	\$206,461,092.81	\$405,317,828.43
Support Non-Personnel Costs	\$1,475,378,658.19	\$1,502,078,841.23	\$2,977,457,499.43
Textbooks	\$70,082,654.24	\$70,082,654.24	\$140,165,308.47
<i>Total for SOQ Support</i>	<i>\$2,615,388,416.37</i>	<i>\$2,674,151,037.92</i>	<i>\$5,289,539,454.28</i>
<b>Estimated Total for Current SOQ Costs</b>	<b>\$6,258,014,564.94</b>	<b>\$6,452,540,903.08</b>	<b>\$12,710,555,468.01</b>
<b>Operating Cost of Initiative Exceeding Current SOQ</b>	<b>\$658,359,139.53</b>	<b>\$683,193,803.53</b>	<b>\$1,341,552,943.05</b>
<b>Estimated Total Non-SOQ Costs (State and Local)</b>	<b>\$1,405,981,472.38</b>	<b>\$1,423,951,744.69</b>	<b>\$2,829,933,217.07</b>
K-3 Primary Class Size	\$112,337,473.73	\$112,337,473.73	\$224,674,947.46
Additional Teachers	\$51,331,382.05	\$51,331,382.05	\$102,662,764.09
Other Teacher/Aide Accounts	\$64,632,626.63	\$64,632,626.63	\$129,265,253.25
At-Risk Four Year Olds	\$42,881,103.99	\$42,881,103.99	\$85,762,207.97
<b>Additional At-Risk Pre-School</b>	<b>\$68,200,796.01</b>	<b>\$71,128,536.01</b>	<b>\$139,329,332.03</b>
School Construction	\$77,977,765.79	\$77,977,765.79	\$155,955,531.58
<b>Additional Debt Service</b>	<b>\$283,934,035.41</b>	<b>\$298,976,567.72</b>	<b>\$582,910,603.13</b>
Maintenance Supplement	\$17,164,078.63	\$17,164,078.63	\$34,328,157.26
Other Non-SOQ Costs	\$687,522,210.15	\$687,522,210.15	\$1,375,044,420.29
<b>TOTAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>	<b>\$8,322,355,176.84</b>	<b>\$8,559,686,451.29</b>	<b>\$16,882,041,628.13</b>

**Table 2: Apportionment of SOQ Costs and Non-SOQ Costs to State and Local Governments**

	<u>Current Year FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Biennium Total</u>
<b>State Sales Tax</b>	<b>\$834,457,579.27</b>	<b>\$834,457,579.27</b>	<b>\$834,457,579.27</b>	<b>\$1,668,915,158.55</b>
<u>State Portion of SOQ Costs</u>				
Basic Aid	\$1,945,055,576.00	\$2,226,455,703.35	\$2,302,718,708.82	\$4,529,174,412.17
Vocational Ed.	\$40,753,297.00	\$125,344,714.32	\$129,239,140.58	\$254,583,854.90
Special Ed	\$221,938,460.00	\$300,999,611.18	\$310,607,229.52	\$611,606,840.70
Gifted	\$23,217,155.00	\$25,485,228.18	\$26,422,659.46	\$51,907,887.64
Remedial	\$39,227,842.00	\$38,380,961.87	\$39,504,414.59	\$77,885,376.46
VRS Retirement	\$72,880,705.00	\$95,269,551.15	\$98,334,019.63	\$193,603,570.79
Social Security	\$119,226,259.00	\$166,793,941.32	\$172,181,956.43	\$338,975,897.75
Group Life	\$4,998,110.00	\$6,977,001.47	\$7,202,382.49	\$14,179,383.96
Textbooks	\$38,821,991.00	\$39,481,845.48	\$39,481,845.48	\$78,963,690.97
<b>Estimated Total State SOQ</b>	<b>\$2,506,119,395.00</b>	<b>\$3,025,188,558.33</b>	<b>\$3,125,692,357.00</b>	<b>\$6,150,880,915.34</b>
<b>Estimated Total Local SOQ</b>		<b>\$2,398,368,427.33</b>	<b>\$2,492,390,966.80</b>	<b>\$4,890,759,394.13</b>
<b>Estimated Total for Current SOQ Costs</b>		<b>\$6,258,014,564.94</b>	<b>\$6,452,540,903.08</b>	<b>\$12,710,555,468.01</b>
<b>State Op. Cost of Initiative Exceeding Current SOQ</b>		<b>\$367,489,718.24</b>	<b>\$380,289,605.16</b>	<b>\$747,779,323.40</b>
<b>Local Op. Cost of Initiative Exceeding Current SOQ</b>		<b>\$290,869,421.29</b>	<b>\$302,904,198.36</b>	<b>\$593,773,619.65</b>
<u>State Portion of Non-SOQ Costs</u>				
K-3 Primary Class Size	\$67,783,172.00	\$69,231,278.16	\$69,231,278.16	\$138,462,556.32
Additional Teachers	\$28,289,496.00	\$28,779,401.34	\$28,779,401.34	\$57,558,802.67
Other Teacher/Aide Accounts	\$34,707,078.00	\$35,518,735.87	\$35,518,735.87	\$71,037,471.75
At-Risk Four Year Olds	\$23,511,541.00	\$24,121,646.36	\$24,121,646.36	\$48,243,292.72
<b>Additional At-Risk Pre-School</b>		<b>\$41,651,235.96</b>	<b>\$43,384,784.79</b>	<b>\$85,036,020.75</b>
School Construction	\$54,999,991.00	\$55,461,095.03	\$55,461,095.03	\$110,922,190.05
<b>Additional Debt Service</b>		<b>\$141,967,017.71</b>	<b>\$149,488,283.86</b>	<b>\$291,455,301.57</b>
Maintenance Supplement	\$9,507,425.00	\$9,669,671.66	\$9,669,671.66	\$19,339,343.32
Other Non-SOQ Costs	\$455,603,961.32	\$461,540,091.55	\$461,540,091.55	\$923,080,183.10
<b>Tot. State Non-SOQ Costs</b>	<b>\$674,402,664.32</b>	<b>\$867,940,173.63</b>	<b>\$877,194,988.62</b>	<b>\$1,745,135,162.25</b>
<b>Est. Local Non-SOQ Costs</b>		<b>\$538,041,298.75</b>	<b>\$546,756,756.07</b>	<b>\$1,084,798,054.82</b>
<b>STATE SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$5,095,076,029.47</b>	<b>\$5,217,634,530.06</b>	<b>\$10,312,710,559.53</b>
<b>LOCAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$3,227,279,147.37</b>	<b>\$3,342,051,921.23</b>	<b>\$6,569,331,068.60</b>
<b>TOTAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$8,322,355,176.84</b>	<b>\$8,559,686,451.29</b>	<b>\$16,882,041,628.13</b>

**Option 15 -- Varying Teacher Salaries (plus Combined Local Share Adjustment)**  
**with Linear Weighted Average Floor, Statewide Average Ceiling**

**Table 1: Standards of Quality (SOQ) Cost Detail and Total Non-SOQ Costs**

	<u>FY 2003</u>	<u>FY 2004</u>	<u>Biennium Total</u>
<u>SOQ Instructional Personnel</u>			
Instructional Salaries:			
Basic Instructional Positions	\$2,177,485,907.04	\$2,258,174,687.44	\$4,435,660,594.48
Special Education Positions	\$542,882,322.45	\$561,926,429.49	\$1,104,808,751.94
Vocational Education Positions	\$215,823,755.64	\$223,143,775.77	\$438,967,531.41
Gifted & Talented Instructional Positions	\$45,783,257.92	\$47,593,354.24	\$93,376,612.16
Remedial Education Positions	\$63,411,962.71	\$65,410,108.93	\$128,822,071.64
Instructional Fringe Benefits	\$597,238,942.80	\$622,141,509.30	\$1,219,380,452.10
<i>Total for SOQ Instructional Personnel</i>	<i>\$3,642,626,148.57</i>	<i>\$3,778,389,865.16</i>	<i>\$7,421,016,013.73</i>
<u>SOQ Support</u>			
Support Salaries	\$871,070,368.32	\$895,528,449.64	\$1,766,598,817.96
Support Fringe Benefits	\$198,856,735.62	\$206,461,092.81	\$405,317,828.43
Support Non-Personnel Costs	\$1,475,378,658.19	\$1,502,078,841.23	\$2,977,457,499.43
Textbooks	\$70,082,654.24	\$70,082,654.24	\$140,165,308.47
<i>Total for SOQ Support</i>	<i>\$2,615,388,416.37</i>	<i>\$2,674,151,037.92</i>	<i>\$5,289,539,454.28</i>
<b>Estimated Total for Current SOQ Costs</b>	<b>\$6,258,014,564.94</b>	<b>\$6,452,540,903.08</b>	<b>\$12,710,555,468.01</b>
<b>Operating Cost of Initiative Exceeding Current SOQ</b>	<b>\$880,704,620.25</b>	<b>\$914,832,393.96</b>	<b>\$1,795,537,014.21</b>
<b>Estimated Total Non-SOQ Costs (State and Local)</b>	<b>\$1,405,981,472.38</b>	<b>\$1,423,951,744.69</b>	<b>\$2,829,933,217.07</b>
K-3 Primary Class Size	\$112,337,473.73	\$112,337,473.73	\$224,674,947.46
Additional Teachers	\$51,331,382.05	\$51,331,382.05	\$102,662,764.09
Other Teacher/Aide Accounts	\$64,632,626.63	\$64,632,626.63	\$129,265,253.25
At-Risk Four Year Olds	\$42,881,103.99	\$42,881,103.99	\$85,762,207.97
<b>Additional At-Risk Pre-School</b>	<b>\$68,200,796.01</b>	<b>\$71,128,536.01</b>	<b>\$139,329,332.03</b>
School Construction	\$77,977,765.79	\$77,977,765.79	\$155,955,531.58
<b>Additional Debt Service</b>	<b>\$283,934,035.41</b>	<b>\$298,976,567.72</b>	<b>\$582,910,603.13</b>
Maintenance Supplement	\$17,164,078.63	\$17,164,078.63	\$34,328,157.26
Other Non-SOQ Costs	\$687,522,210.15	\$687,522,210.15	\$1,375,044,420.29
<b>TOTAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>	<b>\$8,544,700,657.57</b>	<b>\$8,791,325,041.72</b>	<b>\$17,336,025,699.29</b>

**Table 2: Apportionment of SOQ Costs and Non-SOQ Costs to State and Local Governments**

	<u>Current Year FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Biennium Total</u>
<b>State Sales Tax</b>	<b>\$834,457,579.27</b>	<b>\$834,457,579.27</b>	<b>\$834,457,579.27</b>	<b>\$1,668,915,158.55</b>
<u>State Portion of SOQ Costs</u>				
Basic Aid	\$1,945,055,576.00	\$2,226,455,703.35	\$2,302,718,708.82	\$4,529,174,412.17
Vocational Ed.	\$40,753,297.00	\$125,344,714.32	\$129,239,140.58	\$254,583,854.90
Special Ed	\$221,938,460.00	\$300,999,611.18	\$310,607,229.52	\$611,606,840.70
Gifted	\$23,217,155.00	\$25,485,228.18	\$26,422,659.46	\$51,907,887.64
Remedial	\$39,227,842.00	\$38,380,961.87	\$39,504,414.59	\$77,885,376.46
VRS Retirement	\$72,880,705.00	\$95,269,551.15	\$98,334,019.63	\$193,603,570.79
Social Security	\$119,226,259.00	\$166,793,941.32	\$172,181,956.43	\$338,975,897.75
Group Life	\$4,998,110.00	\$6,977,001.47	\$7,202,382.49	\$14,179,383.96
Textbooks	\$38,821,991.00	\$39,481,845.48	\$39,481,845.48	\$78,963,690.97
<b>Estimated Total State SOQ</b>	<b>\$2,506,119,395.00</b>	<b>\$3,025,188,558.33</b>	<b>\$3,125,692,357.00</b>	<b>\$6,150,880,915.34</b>
<b>Estimated Total Local SOQ</b>		<b>\$2,398,368,427.33</b>	<b>\$2,492,390,966.80</b>	<b>\$4,890,759,394.13</b>
<b>Estimated Total for Current SOQ Costs</b>		<b>\$6,258,014,564.94</b>	<b>\$6,452,540,903.08</b>	<b>\$12,710,555,468.01</b>
<b>State Op. Cost of Initiative Exceeding Current SOQ</b>		<b>\$477,652,882.03</b>	<b>\$494,772,456.16</b>	<b>\$972,425,338.19</b>
<b>Local Op. Cost of Initiative Exceeding Current SOQ</b>		<b>\$403,051,738.22</b>	<b>\$420,059,937.80</b>	<b>\$823,111,676.02</b>
<u>State Portion of Non-SOQ Costs</u>				
K-3 Primary Class Size	\$67,783,172.00	\$69,231,278.16	\$69,231,278.16	\$138,462,556.32
Additional Teachers	\$28,289,496.00	\$28,779,401.34	\$28,779,401.34	\$57,558,802.67
Other Teacher/Aide Accounts	\$34,707,078.00	\$35,518,735.87	\$35,518,735.87	\$71,037,471.75
At-Risk Four Year Olds	\$23,511,541.00	\$24,121,646.36	\$24,121,646.36	\$48,243,292.72
<b>Additional At-Risk Pre-School</b>		<b>\$41,651,235.96</b>	<b>\$43,384,784.79</b>	<b>\$85,036,020.75</b>
School Construction	\$54,999,991.00	\$55,461,095.03	\$55,461,095.03	\$110,922,190.05
<b>Additional Debt Service</b>		<b>\$141,967,017.71</b>	<b>\$149,488,283.86</b>	<b>\$291,455,301.57</b>
Maintenance Supplement	\$9,507,425.00	\$9,669,671.66	\$9,669,671.66	\$19,339,343.32
Other Non-SOQ Costs	\$455,603,961.32	\$461,540,091.55	\$461,540,091.55	\$923,080,183.10
<b>Tot. State Non-SOQ Costs</b>	<b>\$674,402,664.32</b>	<b>\$867,940,173.63</b>	<b>\$877,194,988.62</b>	<b>\$1,745,135,162.25</b>
<b>Est. Local Non-SOQ Costs</b>		<b>\$538,041,298.75</b>	<b>\$546,756,756.07</b>	<b>\$1,084,798,054.82</b>
<b>STATE SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$5,205,239,193.26</b>	<b>\$5,332,117,381.06</b>	<b>\$10,537,356,574.32</b>
<b>LOCAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$3,339,461,464.30</b>	<b>\$3,459,207,660.67</b>	<b>\$6,798,669,124.97</b>
<b>TOTAL SOQ, INITIATIVE, AND NON-SOQ COSTS</b>		<b>\$8,544,700,657.57</b>	<b>\$8,791,325,041.72</b>	<b>\$17,336,025,699.29</b>



## **Appendix D**

### **Agency Responses**

As part of an extensive data validation process, the major entities involved in a JLARC assessment effort are given an opportunity to comment on an exposure draft of the report. Appropriate technical corrections resulting from the exposure review have been made in this final report. This appendix contains the written response from the Board of Education.



# COMMONWEALTH of VIRGINIA

## BOARD OF EDUCATION

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January 14, 2002

The Honorable Vincent F. Callahan, Jr.  
Chairman, Joint Legislative Audit and Review Commission  
Suite 1100, General Assembly Building  
Capitol Square  
Richmond, Virginia 23219

Dear Delegate Callahan:

On behalf of the Board of Education, I want to express my appreciation to the Commission and to the JLARC staff for their extensive research in preparing the *Review of Elementary and Secondary School Funding*, and, in particular, to Bob Rotz, who led the study and presented the findings and recommendations to the Board at its November meeting. The study has brought to our attention a number of important issues for consideration as the Board reviews the Standards of Quality (SOQ), and the study will be a valuable resource as we consider these issues in the upcoming months.

### Observations about SOQ Funding Issues

We note that the report was designed to focus on the funding provided to meet the Standards of Quality (SOQ). In order to have a more comprehensive picture of elementary and secondary school funding, and to put the Board's actions on policy issues related to the SOQ in context, we offer the following observations.

First, several of the findings that resulted in the recommendations contained in Tier 1 deal with the methodology for determining the cost of the Standards of Quality. It should be noted that the current methodology observed by the Board of Education is the same as that used by the General Assembly in adopting the state budget. The Board holds that the methodology used to determine the cost of the Standards of Quality is the constitutional prerogative of the General Assembly.

The Board may from time to time endorse changes or alterations to that methodology; however, ultimate authority over the "official" methodology is reserved solely for the General Assembly. For this reason, the Board of Education offers no comment on the changes made to the costing methodology in the past by the General Assembly, nor does it offer any comments at this time on the specific technical changes proposed in the JLARC report. The Board will review the proposed technical changes and will endorse those it supports after a thorough review.

The Board would like to note, however, that it supports any movement toward increasing teacher salaries, as well as increasing support for programs targeted at early intervention such as the At-Risk Four-Year-Old program. The Board also supports methodological changes that would permanently recognize technology costs in the Standards of Quality. This last issue is supported on the basis that: 1) the JLARC methodology adopted in the 1980s did not anticipate these types of expenditures and it therefore may not fully recognize these costs that have since become an integral part of the education process and which are significant cost items in terms of both personnel and materials; and, 2) a permanent funding stream contained in the Standards of Quality and funded from the state's general fund would relieve the growing demand that is currently placed on the Literary Fund to support technology initiatives. The increased use of Literary Fund revenues diminishes the fund's ability to make low-interest loans for school construction.

With respect to the Board's role in promoting changes to the Standards of Quality that would better recognize prevailing practice and the costs associated with it, we believe that a broader view of public education funding is required to better understand the Board's actions. While the report is factually correct with respect to each of its findings, we believe that the findings are presented in some instances with a perspective that is too narrow. Also, they do not appear to recognize the climate and circumstances that currently exist or that existed when some of the reported changes in the funding methodology took place.

For instance, during the early 1990s, the Commonwealth was being sued by a coalition that alleged that the Standards of Quality funding methodology was not constitutional. This case was argued in court, and the resulting verdict held that Virginia's method for funding the Standards of Quality was constitutional. While the report notes this important event, it does not consider the impact that this decision may have had on the inclination of the Board to suggest changes to the methodology. While it cannot be confirmed that every Board since that ruling held the same view on the issue, it is believed that subsequent Boards were reluctant to change a foundation funding program that had been ruled to be constitutional.

Several other issues that impacted public education funding also were developing during the early 1990s. One of the most significant was the work of the Commission on Educational Opportunities for All Virginians. From this gubernatorial commission, several recommendations were made that became the basis for actions taken by the Board. Among these recommendations was the basic recognition that not all students come to school ready to learn at the same level. Several recommendations focused on developing programs that addressed the needs of students

who are educationally at-risk. This study put forward the concept of using free lunch eligibility as a proxy for estimating the number of students who are educationally at-risk.

Based on this concept and other recommendations of this study, several new funding streams were proposed and ultimately funded by the General Assembly. These initially included the Primary Class Size Reduction for kindergarten through the third grade, the At-Risk Add-On program, and the At-Risk Four-Year-Old program. Each of these programs was designed to recognize the special needs of students who might be educationally at-risk.

An important distinction regarding these new programs was that they were not designed to address all students in the same manner. The Standards of Quality foundation program has always been viewed as a program that addresses the basic needs of all students in a consistent and equitable approach. Because these programs were specifically designed to be different, based upon the at-risk needs of each division or school, they could not be adapted easily into a foundation program that had been designed to serve all students the same way.

Another important event of this time period dealt with a growing movement away from state mandates. The Board was likely aware of the opposition that was building against increased state mandates. These new programs were designed to be offered on an incentive basis. School divisions could decide whether or not they wanted to participate and whether or not they could match the state funds that were being offered. An important aspect of this "choice" option was that more specific requirements and greater accountability could be demanded of participating school divisions since it was optional rather than mandated.

This approach differs from the Standards of Quality programs, which are mandated for all divisions; however, as a result of that broad mandate, the requirements must be less specific and more generalized to accommodate the different challenges that school divisions will have in implementing the mandated program.

The combination of these events represents several paradigm shifts regarding funding for public education. In summary, the focus of funding for new programs became:

- Developing programs that target specific issues or needs in public education;
- Making the programs optional so that school divisions are not required to offer them or provide the matching funds unless they elect to participate; and
- Increasing the level of accountability with specific requirements for how the additional funds may be used, which in turn keeps the funds targeted at the needs that were identified as the basis for establishing the funding.

Since the early 1990s, subsequent Boards, Governors, and General Assemblies have embraced the concepts embodied in the incentive-based programs. They have grown significantly over the years and now make up almost a half billion dollars of additional funding annually for public schools.

Consequently, while the assertions made in the report that the Board of Education has not changed the standards that drive funding are true, they do not consider the significant focus that has been placed on addressing the specific needs that have been identified in public education. Further, this study does not appear to recognize that the tremendous resources pumped into the incentive-based programs may have fueled much of the prevailing practice that exceeds the Standards of Quality.

### **The Board of Education's Actions to Address the Needs of Public Education**

While the Board acknowledges that it has been relatively inactive over the last four years in the review and revision of the SOQ affecting resources such as staff-to-pupil ratios and maximum class sizes, it has not neglected its responsibilities to address the needs of public education. The Board's actions on financial matters have been focused on incentive-based programs; however, its focus on the Standards of Quality does not stop there. Much of the Board's focus has been on SOQ requirements affecting learning standards and accountability in the schools.

Standard 1 of the SOQ addresses the establishment and regular review and revision of education objectives (Standards of Learning) for the Commonwealth's public schools. The extensive process of revising the Standards of Learning (SOL) began in the early 1990s. Since adopting new standards for each grade in academic areas in 1995, the Board has concentrated on systematically reviewing, revising, and establishing standards in remaining school subjects, such as the fine arts, foreign languages, computer technology, health, physical education, and driver education. The Board spearheaded the process to review and amend the history and social sciences standards, as well as the mathematics standards, and ensured that supporting materials, such as curriculum guides, were made available to teachers.

Standard 1 also gives the Board the responsibility for prescribing the methods of assessing the mastery of these educational objectives. Standards of Learning test development began in 1996, with the involvement of classroom teachers, curriculum specialists, and local educators. The Board has been extensively active with the establishment of the processes for the oversight and evaluation of the SOL testing program. The activities include setting passing scores for the tests, the adoption of criteria for substitute tests, the establishment of advisory committees to address testing issues, and the objective assessment of the tests' reliability and validity.

Standard 3 includes the responsibilities of the Board of Education to: 1) regulate the accreditation of schools and determine criteria for high school diplomas and seals; 2) establish requirements for licensing teachers, principals, supervisors, and other professional staff; 3) establish criteria for determining educational performance in public schools as part of the accreditation process; and 4) develop appropriate assessments to measure educational progress. In 1997 the Board of Education adopted the revised Standards of Accreditation. From October 1999 through September 2000, the Board initiated a comprehensive public process to refine, clarify, and revise these regulations, addressing such controversial and complex issues as

accreditation ratings for schools, awarding credits for graduation, testing of limited English proficient students, and requirements for schools that fail to meet student academic performance standards.

The percentages and number of schools that are Accredited with Warning, as well as those in all other accreditation rating categories, are provided to the General Assembly members by the Board of Education each year. In addition, to assess educational progress in the Commonwealth, results of the SOL testing program, as well as national testing programs such as the NAEP and Stanford 9, are compiled and compared annually. Testing data, including statewide averages and passing rates and achievement levels disaggregated by ethnic groups, have been provided annually by the Board to members of the General Assembly.

During the same time period, the Board has revised the teacher licensure regulations to address teacher shortages in academic areas and geographic regions; to ensure alignment with the SOL; to establish core competencies for licensure in special education; and to incorporate proficiency and knowledge in technology.

There are other responsibilities directed to the Board of Education within the SOQ, including the training, professional development, and evaluation of teachers, superintendents, and principals; recognition of academic achievement; and standards for remediation. Over the past several years, the Board has acted in these areas as well as those above, all of which affect the current condition and needs of public education in the commonwealth. It is now timely and appropriate for the Board of Education to turn to an assessment of the current condition of public education, what is still needed, and the leadership to be provided.

### **The Board of Education's Review of the Standards of Quality**

The Board has already begun this process. At its October 22, 2001, meeting, the Board of Education unanimously adopted an amendment to its bylaws, which states:

*The Board of Education and its respective standing committee shall determine the need for a review of the Standards of Quality from time to time but no less than once every two years. The Board shall establish, by resolution, the process for such review. The Board shall consider making changes, if any, to the Standards of Quality based upon that review.*

*The results of the Board's review and recommended changes shall be communicated to the Governor and also to the Chairmen of the House Committee on Education, the House Committee on Appropriations, the Senate Committee on Education and Health, and the Senate Committee on Finance.*

At the November 27, 2001, meeting, the Board adopted a resolution establishing a Standards of Quality Standing Committee, which is charged with:

The Honorable Vincent F. Callahan, Jr.  
January 14, 2002  
Page 6

*...determining the information to be reviewed to determine the condition and needs of public education; determining the process to be used to complete this comprehensive review; establishing a time line that anticipates a report to the full Board followed by a review and revision of the Standards of Quality, if appropriate; and developing the format to be utilized for the annual report.*

I have appointed Mr. Scott Goodman to chair this committee, and Mrs. Diane Atkinson, Mrs. Susan Genovese, Dr. Gary Jones, and I will serve on the committee. The first meeting to plan the review process is scheduled for January 14.

In the months ahead, as the Board conducts its review of the Standards of Quality, special consideration will be given to the JLARC recommendations. We look forward to continuing the dialogue with JLARC, as well as with the standing education committees, the money committees, and the Educational Accountability Commission and its special task force in addressing these important issues.

Sincerely,



Kirk T. Schroder,  
President  
Board of Education

KTS

cc: Mr. Philip A. Leone, Director  
Joint Legislative Audit and Review Commission

The Honorable Belle S. Wheelan  
Secretary of Education

The Honorable Emmett W. Hanger, Jr., Chair  
Educational Accountability Commission (SJR 498)

The Honorable Flora D. Crittenden, Chair  
Special Task Force Examining the Impact of the Standards of Accreditation on  
Local School Division Budgets (HJR 723)

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