

**REPORT OF THE  
COMMISSION TO STUDY**

**Efficiency  
in the Use of  
Public Education Funds**

**TO THE GOVERNOR AND  
THE GENERAL ASSEMBLY OF VIRGINIA**



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# Report of the Commission to Study Efficiency in the Use of Public Education Funds

*to the Governor and the General Assembly of Virginia*

RICHMOND, VIRGINIA

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## I. Origin of the Study

The Commission to Study Efficiency in the Use of Public Education Funds was established pursuant to Senate Joint Resolution 171 of 1989 which was patroned by Senator Dudley J. Emick. This enabling resolution noted that funding of public education has escalated in recent years, that staffing levels have increased in many school divisions, yet enrollments in some areas are declining. Therefore, the Commission was created to review the feasibility of initiating policies designed to improve fiscal responsibility in the use of public education funds while maintaining the Commonwealth's commitment to excellence. The criteria for conducting this study were many, e.g., the General Assembly and local governments have spent substantial sums of money over recent years to fund education yet many experts believe that additional increases are necessary; there are clearly discernible disparities among the school divisions in terms of student achievement; reductions in the student/teacher ratios continue to be one focus in the efforts to achieve quality education; consolida-

tion of schools, services and programs appears desirable, but occurs with difficulty; and accountability is essential to justify any new or increased funding.

The Commission was charged with developing a new approach to the problems of education funding through a critical evaluation of the state system which will identify strengths and weaknesses and make recommendations for change. Senate Joint Resolution 171 directed the Commission to "review the requirements of state and federal mandated educational programs to determine the feasibility of consolidating certain programs, services and school division functions, assess whether and to what extent the instructional, supervisory and administrative staff levels exceed need, particularly given the number of students enrolled in the public schools of the school division, review the organizational, planning and budgetary structures of the school divisions to determine the need and ways in which such structures may be improved to maximize the utilization of personnel and funds, and recommend such statutory, regulatory and policy changes as may be necessary to facilitate the efficient use of public education funds."

The enabling resolution called for the appointment of eleven members, including three at-large members of the Senate, four at-large members of the House and four elected officials with representation from rural and urban counties and cities. The members so appointed were: Senators Hunter B. Andrews, Dudley J. Emick and Clarence A. Holland; Delegates C. Richard Cranwell, Shirley F. Cooper, Alan A. Diamonstein and Jane H. Woods; and elected local officials Paul D. Fraim, John C. Hamlin, Katherine K. Hanley and Janet D. Nelson. Senator Emick served as chairman and Delegate Cooper served as vice-chairman.

## II. A Short Analysis of the Issues

The Constitutional Revision Commission of the late 1960s evaluated the constitutional provisions on education with great care. The General Assembly's concern

for providing equal educational opportunities to all of the children of the Commonwealth and for improving the quality of education in every school division in Virginia resulted in the recommendation of strong new language for the education article. The new article called for "an educational program of high quality" and established the revolutionary concept of state-wide "Standards of Quality."

The Constitutional Revision Commission brought about a major change in the fiscal responsibility for the public school system. Prior to the 1970 Constitution, the responsibility of local government to fund education was discretionary. Further, the Commonwealth did not have any legal responsibility to fund public education, although a statewide system had been mandated. The Constitutional Revision Commission designed § 2 of Article VIII of the Virginia Constitution to establish in clear terms the authority of the General Assembly to decide how the funds to support the Standards of Quality are to be allocated and apportioned between the state and local governments. The second paragraph of § 2 states:

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

The Virginia commitment to "quality" and uniform standards was reinforced by this fiscal commitment. The Standards of Quality cannot be divorced from cost. Balancing the "quality" of the Standards with the money for funding the Standards has always been a sensitive and difficult issue.

There are two components of the funding formula, cost and distribution. The calculations of SOQ costs for a school division, a very data-intensive process, are based on two concepts, the calculation of the required instructional positions and development of reasonable or prevailing costs. The latest actual expenditure and enrollment data are

used as the basis for future expenditures by projecting inflation rates, salary increases and enrollment changes. For calculation of instructional positions, all staffing requirements or pupil/teacher ratios pursuant to the Standards of Quality or the Standards of Accreditation are identified, the requirements are compared with enrollments at each grade level in each school, and then the number of instructional personnel required to meet the Standards of Quality are calculated. Since the Accreditation Standards are requirements of the Standards of Quality, the staffing requirements set forth in the Accreditation Standards must be met as well as the ratios set forth in the SOQ in order to comply with the law as set forth in the SOQ.

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Various categories of instructional personnel and certain student/teacher ratios are required for grades K through 12. Therefore, enrollment data impact the calculations of instructional positions. Because the Standards of Quality require a division-wide student/teacher ratio of 24/1 in first grade — with no class being larger than 30 — if a first grade class has 31 students, the school division is entitled to funding for two teachers. No assumptions can be made about how schools are organized or the appropriateness of class size because required positions are calculated on the basis of the actual configurations of schools. It must be noted that the appropriations act standard establishes the minimum level of instructional staff funding and that many school divisions exceed the personnel requirements established in the various laws.

After the instructional staff levels to be funded by the Commonwealth are calculated for the base year, the levels to be funded by the Commonwealth for the upcoming biennium are calculated by using the projected enrollment changes for each school division. After the projected calculations are completed,

the biennium calculated positions are compared to the floor ratios provided in the appropriations act which are currently 51 per 1000 students for basic aid positions plus six special education and vocational positions per 1000 students for a total floor of 57 per 1000 students. If the calculated basic aid and add-on positions are less than these floors, positions are added. Instructional staff levels funded by the Commonwealth will, therefore, range from 58 per 1000 students to 115 per 1000 students by the 1990-1992 biennium, because the calculations are based on the class sizes in each school rather than on fixed state-wide or division-wide teacher/student ratios.

After the required instructional levels are calculated, the prevailing salary average for each type of instructional position is determined, then the number of instructional positions for the school division is multiplied by the prevailing salary costs and fringe benefits are added.

The concept of prevailing state-wide costs is intended to be representative of spending in the majority of school divisions. Prevailing costs are weighted average costs calculated by counting every school division, but allocating the greatest weight to the school divisions which are clustered around the middle cost in order to minimize distortion of the results caused by very low and very high costs. The use of prevailing costs is calculated to reimburse the school divisions either slightly higher or slightly lower than the actual expenditures. Costs which exceed the prevailing costs are not reimbursed by the Commonwealth. Therefore, school divisions in which the expenditures exceed the prevailing costs must turn to the local governing bodies for funds to meet the excess amount. However, school divisions which operate at less than the prevailing costs receive a subsidy from the Commonwealth.

Prevailing cost calculations are processed for all costs which are quantified in the Standards of Quality, such as salaries and support costs. It must be understood that Standard 2 of the Standards of Quality requires support services; however, neither this standard nor the appropriations act quantifies these services. One example of support costs is nursing services. Nursing services are

calculated by determining the prevailing number of nursing hours per student and multiplying this number by the number of students, then subtracting the nursing hours contributed by the local health departments. The net nursing hours thus calculated are then multiplied by the prevailing hourly salary rate for nurses. Other support cost categories include support salary costs (janitors, central office staff, both administrative and clerical), non-personal services costs (instructional supplies, electrical services, fuel, library books, telephones, postage, travel, etc.), substitute teacher costs, professional development costs (inservice training), superintendent's salary, school board costs, pupil transportation, and support fringe benefits.

The Department of Education receives annual reports on revenues and expenditures from each school division which are reported according to the Board of Education's classification of expenditures. Supplemental reports on positions and salaries also are provided. These reports are the bases for calculating the costs of the Standards of Quality and the Commonwealth's share of these costs. These reports demonstrate that there are significant variations among the school divisions in terms of funding sources and spending patterns.

In recent years, several studies related to the funding of the Standards of Quality and the apportionment of the costs of this funding between the state and the local governments have been conducted by the Joint Legislative Audit and Review Commission (JLARC). In 1986, JLARC recommended a new method of calculating the costs of the Standards of Quality, focusing on quantifiable standards where data is ascertainable and statewide prevailing costs utilizing linear weighted average values for other areas. In 1988, JLARC delivered the report on the second phase of its study of the Standards of Quality in which the apportionment of the costs between the state and the localities was the focus. Although this study validated the use of the composite index as a means of determining ability to pay, JLARC recommended that the Commonwealth equalize certain categorical funding programs by using the composite index to distribute these funds in order to achieve "pupil equity and tax equity." This report also recommended that the adjusted gross income

of the locality be substituted for average personal income in calculating ability to pay.

In addition to the JLARC study, various groups have conducted studies in the 1980s, focused on improving the quality of public education, notably, the Governor's Commission on Excellence in Education which was established in 1986 by then-Governor Gerald L. Baliles. Many of the recommendations emanating from these studies related to the quality of education have been accompanied by substantial fiscal impact. However, the JLARC study resulted in recommendations which revised the method for allocating state funds for various educational programs and the method for distributing state funds among the school divisions.

During the 1980s, Virginia as well as most other states engaged in a critical evaluation of public education initiated by *A Nation at Risk*, the report of the President's Commission on Excellence in Education. Funding of public education received unprecedented attention as well as extraordinary financial support from the Governors and the General Assembly of Virginia. The total budget for the Department of Education for direct aid to public education increased from \$1,100,537,780 in 1980 to \$2,392,539,254 in 1989. The increases in funding were accompanied by greater demands on localities, e.g., delivery of new programs such as elementary guidance counseling, lower teacher/pupil ratios and higher salaries for teachers.

The second phase of the JLARC study was reported simultaneously with the most significant revision of the Standards of Quality in this decade. This draconian revision of the Standards was fashioned to implement a number of the recommendations of the Governor's Commission on Excellence in Education as well as to address some of the JLARC Phase II study recommendations.

Controversy related to funding of public education was rampant in Virginia in the 1980s. The issues appeared unlimited. However, some of the most significant concerns were centered on the appropriate apportionment of state and local funding of the Standards of Quality, the definition of "full funding," the division of authority between the General Assembly and the Board of Education,

the balance between local autonomy and state mandates, state initiated teacher salary increases, the educational efficacy of reducing teacher/pupil ratios, the potential for conflict between the authority of local governing bodies and local school boards, consolidation of services, schools, and school divisions to achieve efficiencies and lower costs, and whether there is a need for increased levels of administrative and support staffing and services.

In 1988, one school division contracted for a management audit of its operations. This management audit resulted in sweeping recommendations related to consolidation of schools, creation and elimination of staff positions and rearrangement of functions, school-based management, monitoring of expenditures and employee benefits plans, assessment, enhancement and reallocation of automated systems, communication and coordination of decisions, improvements in the hard copy filing systems, revision of purchasing processes, development of a bus replacement plan, development of staffing standards for building maintenance, profit/loss evaluations of cafeterias, etc. This audit indicated that spending could be significantly reduced without affecting the educational program of the division. The much-publicized results of this audit triggered concern among the members of the General Assembly related to the efficient use of public education funds and the need to examine the way in which public education funds are managed.

### III. The Work of the Commission

The Commission recognized that, although funding for public education has increased substantially in recent years, there may be a number of opportunities for improving the operations of school divisions while enhancing the quality of the educational programs. During the course of the first year of its study, the Commission conducted a preliminary examination, as directed by the enabling resolution, of the requirements of state and federal mandated educational programs to determine the feasibility of consolidating certain programs, services and school division

functions, a preliminary assessment of the instructional, supervisory and administrative staffing levels and a preliminary review of the organizational, planning, and budgetary structures of the school divisions.

During its first meeting, the Commission received staff briefings on the Standards of Quality setting forth the development of Virginia's constitutional and statutory commitment to education from 1779 to the present and the evolution of the Standards of Quality from their inception in 1972 to the present. The Commission was also briefed on the basic aid formula. The Commission was presented a graph which showed the source of operating funds for education to be 47.7% local and other funds and 46.7% state and 5.5% federal funds as well as a graph on the spending patterns which demonstrated that instructional costs comprised 54.9% of the total spending for public schools in FY 1988.

The members noted the difficulties in assessing efficiency in the use of funds, but determined that, by definition, efficiency indicates the lowest cost for an acceptable quality of operation. The Commission approved a study plan which included identification and analysis of issues, collection of data, a proposed financial analysis of such data and a series of site visits to selected school divisions.

The proposed financial analysis focused on two categories of costs: noninstructional and instructional. Since there are no standards for support costs or efficiency, the members were advised that these costs must be judged by comparing similar localities and assessing historical spending patterns. The proposed analysis was designed to cluster school divisions so that each division would be compared to a group of similar divisions. Based on factors that influence efficiency, the operations of school divisions within a cluster were to be compared to identify high-cost elements and various school divisions were to be selected for site visits. The questions to be asked in this analysis in relation to assessing noninstructional costs were: Have localities increased their spending for administration and other noninstructional costs by unreasonable amounts over time? Which localities are spending inordinate amounts on administration and other noninstructional costs, compared to their peers? Why? Staff noted that the

reasons for any exceptional spending patterns could only be answered by in-depth examinations of the management of local school divisions, and that reasonable bases were possible for any exceptional spending patterns. Three questions were also posed in relation to assessing instructional efficiency, the more difficult of the two categories. These questions were: How has instructional efficiency changed over time? Which localities are the least efficient? What are the causes of the inefficiency?

The Commission requested a matrix showing the school divisions ranked by school age population and other data, data on vocational education and the relationships between high school and community college programming, data on the percent of local budgets dedicated to education, information on school board configurations and appointments, and information on how compliance with the Standards of Quality is monitored.

During its second meeting, the Commission received a comparative analysis of school division spending patterns designed to assess efficiency of the use of school funds. Some facts noted in assessing noninstructional efficiency were that there are no staffing or cost standards for the noninstructional components and that funding for these components is determined according to prevailing cost and staffing levels. Therefore, efficiency must be evaluated by comparing the historical spending patterns and staffing levels of similar localities. Again, three questions were raised: Has non-instructional spending and staffing increased by an unreasonable amount? Which local school divisions, as compared to their peers, are spending large sums on noninstructional components? And why? The comparative analysis of noninstructional expenditures focused on three categories - administration, operation and maintenance of physical plants, and pupil transportation.

In assessing instructional efficiency, it was noted that minimum staff levels are established by the Standards of Quality and the Standards of Accreditation. Again, three questions were raised concerning instructional efficiency: How has instructional efficiency changed? Which local school divisions are least efficient, i.e., have the greatest amount of excess capacity, as

compared to their peers? And why? The analysis of instructional efficiency was based on clustering similar school divisions and comparing spending patterns for fiscal years 1983-84 and 1987-88. In addition, a series of site visits was proposed to begin to collect first hand data on reasons for variations within the clusters, e.g., economic, social and cultural differences, differences in the operating environment (mountains, size of area, population density or sparsity, etc.), and relevant historical events.

The characteristics selected to differentiate school divisions were based on the following inputs: size of the community or school division, significant changes in the size of the school division, type of locality, i.e., urban, suburban or rural, socio-economic conditions within the community, and local ability to pay. The variables chosen to represent these general characteristics were present average daily membership, fluctuations in average daily membership, population density, percent of students receiving free or reduced price lunches, percent of first graders scoring in the lowest quartile on standardized tests, the number of special education students, and the most recent composite indices. The clustering technique was not designed to produce perfect matches of school divisions or to compare school divisions against each other within the cluster, but to observe all of the variables simultaneously and, thereby, compare each school division to the entire cluster profile. Based on the variables chosen to distinguish the general characteristics of the clusters, any school division within a given cluster could be said to have more characteristics in common with its cluster than with any of the other clusters.

Five clusters were identified through this method. Cluster 1 consisted of counties with greater population densities than the counties included in Cluster 3 and small cities, having good socio-economic conditions, slight declines in average daily memberships, and near average abilities to pay. Cluster 2 consisted of geographically small urban localities, having dense populations, good socio-economic conditions, and high abilities to pay. Cluster 3 consisted of rural counties and small cities, having sparse populations, less beneficial socio-economic conditions than those jurisdictions included in Cluster 1,



declining average daily memberships, and low abilities to pay. Cluster 4 consisted of developing urban/suburban counties and "noncore" cities, having increasing average daily memberships, good socio-economic conditions, and high abilities to pay. Cluster 5 consisted of "core" cities, having dense populations, poor socio-economic conditions, and near average abilities to pay.

Within the analysis of the three categories of noninstructional efficiency, administration included all central administrative and support staff and expenses, e.g., superintendent and assistants, accounting and finance, purchasing, personnel, research, legal services, clerical staff, travel, purchased services, and office supplies. Comparing the 1983-84 and 1987-88 fiscal years, it was noted that statewide spending for administration in Virginia increased from \$57.6 million to \$84.1 million, demonstrating an increase of \$26.5 million or 46%. Full time equivalent staffing levels increased from 1,974.8 to 2,019.7 during these five years, demonstrating an increase of 74.9 FTE's or 3.8%. Per pupil expenditures increased from \$66.50 in FY 1984 to \$95.54 in FY 88, demonstrating an increase of \$29.04 or 45.7%. Administrative staff ratios per 1000 students increased from 2.08 positions per 1000 students in FY 84 to 2.13 positions per 1000 students in FY 88, demonstrating an increase of .05 per 1000 or 2.4%. Inflation in education costs nationwide during these five years was over 32.9%. In Virginia, the increase in total operating expenditures was more than 50.5%, and the increase in instructional expenditures was more than 53.9%.

Among the categories of administrative expenditures, compensation consumes the largest portion of the total. Total compensation expenditures for administration in Virginia increased from \$47.1 million in FY 84 to \$67.4 million in FY 88, representing a 42.9% increase. Purchased services more than doubled in costs as evidenced by an increase in total expenditures of \$4.1 million in FY 84 to \$8.8 million in FY 88 (114.7%). Travel expenditures were \$1 million in FY 84 and increased to \$1.8 million in FY 88 (85%). Expenditures for office supplies increased from \$1.4 million in FY 84 to \$2.3 million in FY 88 (60.1%). The costs of telephone and postage increased from \$2.5 million in FY 84 to \$2.7 million in FY 88 (7.6%). Other administrative

costs actually decreased from \$1.4 million in FY 84 to \$1.2 million in FY 88 (-16.3%).

Comparisons of the following four measures were used to identify school divisions within clusters which appeared to have excessive administrative costs: administrative costs per pupil, proportion of the budget spent on administration, increases in the proportion of spending on administration, if any, and the rate of increase in spending on administration, if any. The analysis of administration costs identified school divisions demonstrating high costs in more than one of these areas (convergence of indicators) as "outliers." Forty-five school divisions showed an increase in the share of the budget allocated for administration. Twenty school divisions demonstrated high per pupil spending for administration relative to the other school divisions within their clusters. Twenty-one school divisions demonstrated high proportions of spending for administration relative to the other school divisions within their clusters and twenty-one school divisions also showed high percentages of increases in spending for administration. In the analysis, it was noted that increased staffing levels per 1000 students may be attributable to various factors such as declining enrollments, rather than the adding of positions, and that below a certain level, administrative staffing may not be related to enrollment. One-third of the local school divisions with declining enrollments between 1984 and 1988 have added administrative staff. However, growth in the number of positions has been marginal with only six of these localities adding two or more positions during these five years.

The analysis of spending for administration indicates that these costs have grown significantly; however, these increases appear to reflect the overall increases in education spending and can be more appropriately attributed to increases in compensation than to additions to staff. There are some school divisions in which administrative costs and staff are unusually high or are increasing at an unusual rate as indicated by high spending, high proportions of the total spending, increasing proportions of the total spending or large percent increases in administrative costs. Nine school divisions met three or more of the tests applied for high administrative costs.

Within the analysis of the spending patterns for operation and maintenance of school plants, all costs associated with running and maintaining school facilities were included, e.g., compensation for custodial and maintenance staff, fuel, electricity, and telephone costs, water, sewage and waste removal costs, custodial supplies, equipment repair and replacement, motor vehicle repair and replacement, purchased services for maintenance and other related services, and building materials. In FY 1984, the total statewide spending for operation and maintenance of school plants was \$320.6 million and the total staffing level was 10,673 FTE's. In FY 1988, the total statewide spending for operation and maintenance of school plants increased by \$97.2 million or 30.3% to \$417.9 million and the total staffing level increased by 464 FTE's or 4.3% to 11,137 FTE's. Per pupil spending for operation and maintenance was \$303.12 in FY 1984 and increased to \$386.84 in FY 88, providing an increase of \$83.72 or 27.6%. Per pupil staffing levels for operation and maintenance were 11.25 positions per 1000 students in FY 1984 with a minimal increase of .33 per 1000 or 2.9% to 11.58 positions per 1000 students in FY 1988. Among the spending categories included within operation and maintenance, compensation consumes the greatest amount (\$128.9 million in FY 1984 and \$177.6 million in FY 1988, a 37.8% increase).

Three measures were used to detect spending outliers for operation and maintenance of school plants as follows: percent of spending increase greater than that of instruction, high per pupil spending in relation to similar school divisions, and a high proportion of total spending allocated for operations and maintenance in relation to similar school divisions. Thirty-one school divisions met one or more of these test criteria with fifteen having one match, ten having two matches, and six having three matches.

On the basis of this analysis, it was observed that spending for plant operations and maintenance has grown, but the increases are occurring only about half as fast as total spending increases. Staffing levels have been stable. Purchased services and equipment repair and replacement showed the greatest rate of increase (75.5% and 74.6% respectively). Several conditions appear to occur frequently in those school divisions which

are spending outliers in operation and maintenance - high staffing levels, high utility costs, high cost of living in the area or greater number of schools than other similar school divisions.

In analyzing instructional cost efficiency, it was noted that the number of instructional positions per 1000 students increased statewide by 7% between 1984 and 1988 with the statewide average daily membership remaining stable. The growth in instructional positions was enhanced by three scenarios: the decline of average daily membership with an increase in the number of instructional staff; a faster rate of decline in average daily membership than in the number of instructional staff; or a faster rate of increase in instructional staff than in average daily membership.

Eighty-six school divisions demonstrated declining enrollments, with thirty-six of these school divisions demonstrating increases in the numbers of instructional staff. Based on a comparison of the ratios of instructional staff to 1000 students, fifteen school divisions appeared to have high instructional staffing levels. Since the Commonwealth funds instructional positions without regard to school organization, state policy subsidizes schools with low enrollments. Low enrollments contribute to a lack of instructional cost efficiency. However, schools with low enrollments are not always indicators of high teacher/pupil ratios as there are school divisions with a number of small schools whose overall teacher/pupil ratios are not high.

In comparing the statewide number of instructional supervisors, it was noted that, in FY 1984, salary expenditures were \$38.5 million for a total of 1,180 FTE's; in FY 1988, salary expenditures were \$57 million for a total of 1,335.4 FTE's, representing an increase of \$18.4 million or 46.1% and an additional 155.4 FTE's or an increase of 13.2% in staffing levels. Per pupil expenditures for instructional supervisors were \$33.90 in FY 1984 for 1.24 positions per 1000 students. These expenditures increased to \$48.89 in FY 1988 for 1.39/1000. These figures represent a 44.2% increase in expenditures for a 12.1% increase in instructional supervisors. Sixty-seven school divisions increased the number of instructional supervisors and eighty-four school divisions increased their ratios of instructional supervisors per 1000 pupils.

Some general observations based on the analysis of spending patterns of school divisions are: that spending for administration has grown significantly as would be expected given the overall increase in education funding; that the increases in the costs for administration appear to be more related to increases in compensation than to the addition of personnel; that, as compared to their peers, nine school divisions have administrative costs that are unusually high and have increased rapidly; that spending for operation and maintenance of school plants has not experienced an alarming rate of growth over the base years and that increases in staff levels for this component have been modest; that there are, however, several school divisions which appear to be spending inordinate amounts of their overall budgets for operation and maintenance of school plants; that factors which contribute to this apparent inordinate spending on operation and maintenance are staffing levels, utility costs, cost of living in the area or the number of schools being operated; that the statewide ratio of instructional staff per 1000 students grew by 7% between 1984 and 1988; that thirty-six of the eighty-six school divisions experiencing declining enrollments actually increased the number of instructional staff; that fifteen school divisions have, as compared to their peers, high ratios of instructional staff per 1000 students; and that there appears to be a general statewide trend to increase the ratio of instructional supervisors per 1000 students.

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*...state policy subsidizes schools with low enrollments.*

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During this second meeting, the Commission also received programmatic information related to school board membership, the Literary Fund, articulation activities, and the proposed organization of site visits to school divisions. In the analysis of school board membership in Virginia, it was noted that there are 836 school board members in Virginia among the 137 school divisions with the majority of the boards ranging in size between five and seven members (the largest school board has twelve members and the three

smallest school boards have three members each). It was also noted that all school boards are appointed by law in Virginia with county school boards appointed by the board of supervisors or a school board selection commission and the city and town school boards appointed by the governing bodies. The members may be appointed on the basis of magisterial districts or election districts or, in some cases, at-large or a combination of these methods. The terms of office vary across the state with the majority serving for four-year staggered terms. However, two school boards serve for two-year staggered terms; thirty-five school boards serve for three-year staggered terms; one school board serves for four-year concurrent terms; and two school boards serve for five-year staggered terms. The typical school board in Virginia has an odd number of members, is appointed by the local governing body, has at least one at-large member, and serves a four-year staggered term. Significant variations exist across the Commonwealth, however; for example, forty-two counties have school boards appointed by a school board selection commission, thirty-seven school divisions have all members appointed on an at-large basis, and thirty-five school divisions have school boards which serve for three-year staggered terms.

The Commission examined articulation activities in vocational/technical and other areas of education, because such programs tend to reduce duplication between the public schools and the community colleges and provide enhanced educational opportunities for students. Articulation programs are arrangements between public secondary schools and community colleges to develop interrelated educational systems in order to facilitate the training of students through coordinated curricula, i.e., the courses are designed to allow the student to move from the high school to the community college without deficiencies and without repetition. Such programs may focus on vocational/technical education, academic programs or programs in the fine arts. Formal agreements for articulation between school divisions and the community colleges may take two forms - dual enrollment agreements or so-called articulation agreements.

Dual enrollment agreements are formal agreements for double high school and

community college credit which could be in academic or vocational or fine arts programs. The student may attend classes in the community college or in the high school; classes may be taught by community college faculty or school division faculty; and all levels of students including gifted and talented and model school students may be involved. These students pay tuition to the community college and are counted in the calculation of FTE for the community college as well as average daily membership for the high school.

Articulation agreements between school divisions and community colleges are formal agreements focused on vocational/technical education. There are at least fifty-one dual enrollment agreements between school divisions and the community college system and at least 440 signed, formal articulation agreements in effect in Virginia. The articulation agreements cover a wide range of programs including management, drafting and design, office systems technology, automotive repair, electrical, electronics servicing, machine technology, nursing, data processing/computer information systems, welding, agricultural business, accounting, air conditioning, heat and refrigeration, architectural drafting, early childhood development, fire science, records management, photography, culinary arts, retail merchandising/fashion merchandising, music recording technology, and woodworking. In the 1989 survey of articulation activities, the Department of Education and the Virginia Community College System have identified more than 1,081 programs in which articulation would be appropriate. In addition to the 440 signed agreements, this survey identified 184 agreements under development.

During the deliberations of the Commission, the question was posed: How do we know if class size requirements (student/teacher ratios) are honored? For budget purposes, the average daily membership data is based on the September 30, membership and this actual enrollment is used to calculate how many teachers are required. The Commission ascertained that enrollment data is reported on a regular basis to the Department of Education and discrepancies are noted. Each unresolved discrepancy earns the school a deficiency mark against its accreditation status. If a school receives 0-2 deficiencies, no action is taken. If a school receives 2-5

deficiencies, the administration is "advised," but no actions vis-a-vis accreditation are taken. Six or more warnings mean that the school is accredited with a "warning." Basically, infractions do not appear to result in any meaningful penalties and, for the most part, school divisions police themselves.

The Commission noted that the Educational Performance Recognition Program will supplant the administrative review process with a comprehensive outcome indicator system intended to reorient accountability toward outcome indicators and to improve student learning. However, it appears that the responsibility for monitoring the accuracy of the submitted data used to implement this program will still remain with the school divisions.

The Commission also evaluated the revenues from fines and forfeitures which flow into the Literary Fund as required by the Constitution of Virginia. The members noted that localities retain revenues from fines by adopting parallel ordinances. The Commission examined local and state revenues over an eight-year period beginning with 1980 and ending with 1988, and ascertained that the Literary fund moneys from these sources increased from \$10,427,201 in 1980 to \$21,450,389 in 1988, while local revenues from these sources increased from \$10,416,337 in 1980 to \$18,169,339 in 1988. The local percentage of the total revenues from these sources has remained stable, ranging from 49.9% in 1980 to 46% in 1988. The Commission noted that the local share had increased by \$7,753,002 or 74% in these eight years and that the Commonwealth's revenues had increased by \$11,023,188 or 106% in this period. Although the Commonwealth's share of the revenues from fines and forfeitures has increased at a greater rate than the local share of these revenues, it must be noted that the Commonwealth collects only \$3,281,050 more than the localities from this source and that, if the number of localities adopting parallel ordinances increases, the Commonwealth's share of these revenues may decline. Therefore, the amount available to local school divisions for low cost loans to build or renovate facilities may become more restricted.

The Commission was informed that according to data collected in 1988 by the House Subcommittee Studying Elected School

Boards and Fiscal Independence of School Divisions, education expenditures represent an average of approximately 52% of the local revenues, with the percent of local revenues spent on education ranging among the localities from 26.8% to 80.6%. It was also noted that the average percent of education debt as a percent of all outstanding local debt was 62%, with the percent of all outstanding local debt ranging among the localities from 0% to 100%.

Localities were chosen for fourteen site visits based on the preliminary analysis of school division spending patterns noted above. Two of the localities were chosen to develop baseline data; nine of the localities were chosen because the analysis identified them as outliers in various spending categories; three of the localities were chosen because the analysis identified them as low spenders in various spending categories. The purpose of the site visits was to determine the reasons for the various outliers or low spending patterns. The localities chosen for these visits were: the Cities of Richmond, Manassas, Norfolk, Staunton, and Virginia Beach, and the Counties of Surry, Nelson, Roanoke, Charles City, Arlington, Carroll, Henry, Fauquier, and Stafford. The Chairman assigned the members of the Commission to teams for the site visits. At least two staff members were also assigned to cover each site visit.

A profile was developed for each of the school divisions chosen as a site visit location. These profiles identified the 1988-89 ADM, the rate of enrollment growth or loss over the past five years, the number and the kind of schools and enrollment patterns in the schools, the ability to pay (composite index), the percent of local revenues devoted to education, the percent of disadvantaged students, the percent of special education students, the percent of gifted students, the drop-out rate for 1987-1988, the drop-out rank, composite test scores for the first and eighth grades, number and percent of students needing remedial work, the per pupil cost of administration, instruction, and various support services, the percent of total operating costs devoted to administration, the percent of total operating costs devoted to operation and maintenance, any additions to the supervisory and instructional staff, and any significant facts about the costs of transportation and operation and maintenance. A survey instrument was also developed in order to

provide consistency. This instrument focused on assessing efficiency in the use of funds with questions relating to administrative staffing practices, noninstructional staffing practices, privatization of services, school construction, school consolidation, coordination between local governing bodies and school divisions, regionalization of educational services, responsibilities of instructional supervisors, centralization/decentralization of authority within the school division (e.g., site-based management), and the effects on efficiency of various mandates dictated by the Standards of Quality, other statutes, the Standards for Accreditation of Schools and other regulations.

During the third and fourth meetings of the Commission, staff presented a summary of the observations from the site visits. Staff stated that the expenditure totals derived from the annual school reports were generally accurate, that there was usually a reason for high spending, which was not always related to inefficient practices, and that most localities exhibiting high spending in a category were aware of this fact. It was noted that some localities were in a transitional phase during the period used for the preliminary analysis in terms of significant changes in administrative staffing and that, in four of the selected school divisions, the superintendents were new.

## IV. Summary of Observations from Site Visits

It was observed that when cost efficiency is a priority in a school division, the impetus for this concern often comes from the local governing body. Although school boards are more apt to focus on the welfare of the teachers and the students, superintendents report that school boards assume that efforts to maintain and increase cost efficiency are an ongoing concern. Upon occasion, cost efficient activities are initiated because of the philosophy of the superintendent.

There are no standards for administrative staffing, and most central offices, except for those in very small school divisions, are hierarchical in structure with multiple

staffing levels below the superintendent. Job titles for either instructional or noninstructional personnel do not appear to be descriptive of job functions. The backgrounds and qualifications of senior administrative staff vary widely with some administrative staff in business operations having instructional experience and expertise and others having technical experience and expertise. Procedures for formal evaluations of superintendents are rarely in place. Formal management training focused on financial management techniques is not generally provided to principals or superintendents. There appears to be reluctance to dismiss staff that have not performed effectively.

Most divisions have developed and implemented staffing standards for noninstructional staff, e.g., custodians, maintenance personnel, and mechanics, etc., and standards for custodians typically relate to building size and age. Most school divisions rely heavily on full-time noninstructional staff rather than part-time staff, except for food service operations.

In the area of privatization, it was noted that the tendency is to provide administrative and support activities in-house rather than through contracted services. There is a perception among school officials that contracting produces a poorer quality of services and loss of control. Decisions to privatize appear to be stimulated more by the philosophies of the decision makers than from any critical analyses of the costs and benefits of the available alternatives.

School construction is primarily an issue among school divisions with increasing enrollments. School divisions that are behind the demand curve are building schools to meet today's enrollment pressures. One alternative is to centralize school operations by placing two or more schools on a single site, thus making acquisition and preparation costs considerably lower. There is great variety in the manner in which school divisions approach building programs, e.g., development of prototype designs which are suitable for many sites or development of site-specific designs for each school. Among the visited school divisions, there appears to be some consensus on the issue of minimum and optimum school sizes to create efficiencies, i.e., between 400 and 600 students for elementary schools,

between 600 and 900 students for middle schools, and between 900 and 1500 students for high schools.

School consolidation creates the most difficulties for those school divisions which are experiencing declining enrollments. Among the visited school divisions, there are still a number of schools with enrollments well below the minimum sizes noted above. However, there were several school divisions among those visited that had successfully closed and consolidated schools. Division superintendents who had been through the process of consolidation had the following observations: School divisions having small, inefficient schools are aware of their problems. Consolidation is best sold to the public on the basis of improving educational quality for the transferred students. In many localities, schools are viewed as community centers and local residents are generally reluctant to lose this focal point. Geographical barriers rarely make consolidation infeasible. Implementation of the middle school revisions may offer an opportunity for consolidation in some school divisions because of reassignment of grades. When evaluating a proposed consolidation, the capacity of the receiving school to accept additional students must be considered. A new or renovated school at the receiving site improves the public receptivity. Consolidation must be approached by offering the public an open, objective dialogue. To succeed, consolidation must have the commitment of both the local governing body and the school board.

Most school divisions share some administrative operations with local governments, e.g., data processing functions and reciprocal arrangements for the use of school buildings by parks and recreation departments. Other examples of cooperation between school divisions and local governments are centralized purchasing, central garages, central warehouses, centralized accounting, and centralized payrolls. In most localities, cooperation between the school divisions and governing bodies could be improved.

Regional education programs do exist for special education, vocational education, and the magnet schools for math and science. None of the visited school divisions engaged in regional administration programs.

There are no incentives to encourage regional administration. Regionalization or even consolidation of school divisions may or may not produce significant cost savings because of the "leveling up" phenomenon, i.e., the cost of maintaining programs from both school divisions in the consolidated division may exceed the cost of the individual parts.

Among the school divisions visited, there were several models and functions for staff described as instructional supervisors, e.g., administrative extensions of the superintendents, curricula specialists, and supervisors. Further, principals are given varying degrees of autonomy and authority in teacher selection, altering school schedules, and developing the school budgets. However, principals have limited ability to allocate resources and the principal's role is often seen as "managing the school building."

The visited school divisions reported that state mandates are not inappropriate in that many of these mandates have allowed school officials to undertake educational improvements. The specificity of some mandates, however, is believed to impede efficiency, e.g., the teacher salary mandate was cited as troublesome by some of the superintendents because noninstructional staff have pressured school boards for comparable increases and increasing pressure is being exerted to reduce or eliminate programs and services which exceed state requirements rather than provide additional local funds for both salary increases and programs. In several school divisions, it appeared that procedures for dismissing incompetent personnel are difficult to implement. Superintendents noted that local flexibility must be considered when designing state laws and mandates.

During the site visits, a number of examples of cost efficient practices were identified, for example, a regional purchasing program, flexible staffing arrangements, innovative methods for compensating principals and administrative staff, admissions options for parents as a means of managing enrollments, design and location policies for construction of new schools, analysis of the most efficient means of food preparation for the particular school division (centralized versus decentralized), use of part-time teachers, early retirement plans, use of retired teachers and

principals to supplement the instructional staff, custodial staffing practices, and preventive maintenance programs.

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*... a number of examples  
of cost efficient  
practices were identified ...*

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## V. Conclusion

The Commission wishes to emphasize that the foregoing observations are preliminary. However, the Commission has concluded that these observations will provide a framework for a more detailed evaluation of cost efficiency among school divisions. The Commission wishes to note the lack of support services standards which may result in over-staffing or duplicative administrative staffing, the reluctance to consolidate facilities, programs, services and school divisions which may result in under utilization or overstaffing of instructional personnel and/or facilities and the duplication of expensive specialized programs such as vocational/technical or special education programs, and the insufficiency of the correlations between quality indicators and funding standards and accountability which appear to have resulted in inadequate penalties for violations of the Standards of Quality, the Standards of Accreditation and other requirements. For these reasons, the Commission has determined to continue its study in order to collect more definitive data. The focus of this continued study will be narrowed to examine the following:

1. The preliminary staff observations from the site visits to identify specific issues for study related to administrative and support staffing and incentives for consolidation of programs, schools, and activities; and
2. The feasibility and advisability of changing the basis of state funding of support services from prevailing costs per pupil to a different standard; and

3. The efficacy of providing incentive grants to localities who reduce the total costs of administration or the percentage of the budget required for administration; and

4. Methods for encouraging school consolidation and instructional efficiency such as revising the "fund as you operate" principle to assume a minimum acceptable school size and/or providing additional, supplemental funding to localities that implement school consolidations or other financial incentives for school consolidation/renovation projects.

The Commission also reserves the discretion to examine other issues that have been identified during the course of this first year of its study which may not appear superficially to have direct relationships to efficiency in the use of funds, but which the Commission believes may have substantial influence on cost efficiency as well as the quality of education. Examples of these issues may be the relationship of good/poor cooperation between school boards and local governing bodies to efficient operations and quality education, the operations of local school boards, methods to promote a perception of the operation of public schools as a business enterprise with quality instruction and learning as the products, ways to improve the communications between and among the Department of Education and local school boards and local governing bodies, methods for promoting regionalization of programs/operations when such regional efforts will create cost efficiencies and enhance quality, an examination of staffing standards for some support services, an examination of hiring and firing practices and contracting procedures, an assessment of the appropriateness of Virginia's use of standardized tests and the scores on such tests, and methods for reducing transportation costs.

The Commission is endeavoring to conduct an objective examination of the use of public education funds. During the first year of its study, the preliminary steps implemented by the Commission in this objective examination were to assess the constitutional responsibilities of the General Assembly, the Board of Education and the local school boards, to study the current mechanisms for governance and funding of public education, the funding sources and their comparative levels, to perform a comparative analysis of school

division spending and staffing patterns, to conduct a series of fourteen school division site visits, and to summarize the observations from these site visits. Based on these preliminary steps, the Commission believes firmly that cost efficiencies are possible which would enhance the quality of Virginia's public education system and that, unless the General Assembly initiates such cost efficiencies and requires accountability, the members of the General Assembly and the citizens of Virginia will be frustrated in their efforts to improve the quality of the Commonwealth's public education system regardless of the level of state funding.

The Commission wishes to express its thanks to the school divisions chosen as locations for the site visits for their hospitality and cooperation.

RESPECTFULLY SUBMITTED,

Senator Dudley J. Emick, Jr., *Chairman*

Delegate Shirley F. Cooper, *Vice-Chairman*

Senator Hunter B. Andrews

Senator Clarence A. Holland

Delegate C. Richard Cranwell

Delegate Alan A. Diamonstein

Delegate Jane H. Woods

Mr. Paul D. Fraim

Mr. John C. Hamlin

Ms. Katherine K. Hanley

Ms. Janet D. Nelson

REPORT PREPARED BY  
the Division of Legislative Services

JAMES A. HALL, DESIGN



APPENDIX A

Enabling Legislation - Senate Joint Resolution No. 171 of 1989

*Establishing a commission to study efficiency in the use of public education funds.*

Agreed to by the Senate, February 6, 1989

Agreed to by the House of Delegates, February 21, 1989

WHEREAS, Section 1 of Article VIII of the Constitution of Virginia requires that the "General Assembly shall provide for a system of free public elementary and secondary education for all children of school age throughout the Commonwealth and ensure that an educational program of high quality is established and continually maintained"; and

WHEREAS, the Constitution of Virginia provides further in Section 2 of Article VIII 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 the program between the Commonwealth and the local units of government comprising the school divisions"; and

WHEREAS, due to increased mandates from federal and state governments and the proliferation of the responsibilities of public schools concerning the curricula, compensatory programs, staffing and employee benefits, special education and other related programs, funding of public education has escalated; and

WHEREAS, over the years many school divisions have employed additional staff to provide such programs and services, further increasing the costs of public education; and

WHEREAS, because decreased student enrollment, an excess of supervisory and administrative staff, fragmentation and duplication of programs and services, poor utilization of funds and personnel and poor purchasing, planning and budgeting practices have contributed to the financial exigency of some school divisions, a review of such practices to ascertain ways in which the organizational, staffing, and planning and budgetary structures may be improved to maximize efficiency in the use of school funds is warranted; and

WHEREAS, fundamental to the Commonwealth's goal of maintaining excellence in education is a commitment to the implementation of quality instructional programs, the employment of competent and dedicated teachers and administrators, accountability, and adherence to judicious planning and fiscal management; now, therefore, be it

RESOLVED by the Senate, the House of Delegates concurring, That a commission to study efficiency in the use of public education funds is established. The commission shall review the requirements of state and federal mandated educational programs to determine the feasibility of consolidating certain programs, services and school division functions, assess whether and to what extent the instructional, supervisory and administrative staff levels exceed need, particularly given the number of students enrolled in the public schools of the school division, review the organizational, planning and budgetary structures of the school divisions to determine the need and ways in which such structures may be improved to maximize the utilization of personnel and funds, and recommend such statutory, regulatory and policy changes as may be necessary to facilitate the efficient use of public education funds.

The commission shall be composed of eleven members to be appointed as follows: three members from the Senate at-large to be appointed by the Senate Committee on Privileges and Elections, four members of the House of Delegates at-large to be appointed by the Speaker, and a local elected official from each of a rural and an urban county and a rural and an urban city, to be appointed by the Governor. Such citizen members shall not be affiliated professionally or by appointment with any educational institution or entity.

The Division of Legislative Services shall provide staff support for the commission.

All agencies of the Commonwealth shall provide assistance upon request in the manner deemed appropriate by the commission.

The commission shall complete its work in time to submit its findings and recommendations to the Governor and the 1990 General Assembly pursuant to the procedures of the Division of Legislative Automated Systems for the processing of legislative documents.

The indirect costs of this study are estimated to be \$18,245; the direct costs of this study shall not exceed \$13,860.

## APPENDIX B

### Continuing Legislation - Senate Joint Resolution No. 48 of 1990

*Continuing the Commission to Study Efficiency in the Use of Public Education Funds.*

Agreed to by the Senate, January 30, 1990

Agreed to by the House of Delegates, March 7, 1990

WHEREAS, the Commission to Study Efficiency in the Use of Public Education Funds was established to review the feasibility of initiating policies designed to improve fiscal responsibility in the use of public education funds while maintaining the Commonwealth's commitment to excellence; and

WHEREAS, the Commission has focused specifically on the extent that instructional, supervisory, and administrative staff exceed need, ways in which the organizational, planning, and budgetary structure of local school divisions can be improved, and the feasibility of consolidating certain programs, services, and local school division functions; and

WHEREAS, the Commission has endeavored to conduct an objective examination of the use of public education funds by implementing certain preliminary steps; and

WHEREAS, the preliminary steps in this objective examination were to assess the constitutional responsibilities of the General Assembly, the Board of Education, and the local school boards, to perform a comparative analysis of school division spending patterns, and to conduct a series of twelve school division site visits; and

WHEREAS, the Chairman charged the Commission with developing a new approach to the problems of education funding through a critical evaluation of the state system which will identify strengths and weaknesses and make recommendations for change; and

WHEREAS, during this year of its study, the Commission believes that it has made significant strides in accomplishing its goals; however, there is substantial work yet to be completed if the purpose of the Commission is to be satisfied; now, therefore, be it

RESOLVED by the Senate, the House of Delegates concurring, That the Commission to Study Efficiency in the Use of Public Education Funds is hereby continued. The membership of the Commission shall remain as established in SJR 171 of 1989. Any vacancies shall be filled as originally provided in the 1989 enabling resolution.

The Commission shall be authorized to hire a consultant to assist it in an detailed analysis of school efficiency in this Commonwealth. In its deliberations, the Commission shall examine:

1. The preliminary staff observations from the site visits to identify specific issues for study related to administrative and support staffing and incentives for consolidation of programs, schools and activities; and

2. The feasibility and advisability of changing the basis of state funding of support services from prevailing costs per pupil to a different standard; and

3. The efficacy of providing incentive grants to localities which reduce the total costs of administration or the percentage of the budget for administration; and

4. Methods for encouraging school consolidation and instructional efficiency such as revising the "fund as you operate" principle to assume a minimum acceptable school size and/or providing additional, supplemental funding to localities that implement school consolidations or other financial incentives for school consolidation/renovation projects.

Staff support shall be provided to the Commission jointly by the personnel of the Senate Finance Committee, the House Appropriations Committee and the Division of Legislative Services.

The Commission shall submit its findings and recommendations to the 1991 Session of the General Assembly in accordance with the procedures of the Division of Legislative Automated Services for publishing reports.

The indirect costs of this study are estimated to be \$18,465; the direct costs shall not exceed \$13,860.



