Winter 1995

The Effects of the Recommendations of the Joint Legislative Audit and Review Commission on State Funding for the School Divisions of Chesapeake, Norfolk, Portsmouth, and Virginia Beach

James T. Roberts
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The Effects of the Recommendations of the Joint Legislative Audit and Review Commission on State Funding for the School Divisions of Chesapeake, Norfolk, Portsmouth, and Virginia Beach

by

James T. Roberts

A Dissertation Submitted to the Faculty of Old Dominion University in Partial Fulfillment of the Requirements for the Degree of DOCTOR OF PHILOSOPHY

URBAN SERVICES

OLD DOMINION UNIVERSITY

DECEMBER, 1995

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ABSTRACT

The Effects of the Recommendations of the
Joint Legislative and Audit Review Commission
on State Funding for the School Divisions of
Chesapeake, Norfolk, Portsmouth and Virginia Beach

The purpose of this study was to determine the effects of the
recommendations of the Joint Legislative Audit and Review Commission
(JLARC) on State funding for the school divisions in the Virginia cities
of Chesapeake, Norfolk, Portsmouth and Virginia Beach.

The case study design provided the framework for the examination
of the data. Records available from the Virginia State Department of
Education, the Hampton Roads Planning District Commission, the Virginia
Education Association (VEA), and the Joint Legislative Audit and Review
Commission were reviewed to develop the research questions and the
interview guides. Interviews were held with key persons in the State
Department of Education, the Joint Legislative Audit and Review
Commission, former members of the Virginia Governor’s staff, leaders in
the Virginia Education Association, and key individuals in the local
school divisions included in the study.

The JLARC study did not specifically examine the effects of the
recommendations on urban divisions. The analyses completed by the VEA
and other agencies did not give specific consideration to urban areas.
This study examined these effects on four school divisions located in
areas designated by the U.S. Census Bureau as urbanized.

The findings of this study indicated that the JLARC
recommendations adopted by the General Assembly affected State funding
to education for the four cities used as case studies. The urban
characteristics of each city had an influence on the State funding based
on the changes to the methodology used by the State Department of
Education to provide funding for the school divisions initiated by the
results of the JLARC reports. Norfolk and Portsmouth increased the percentage of their budgets attributed to State funding during the years after the implementation of the JLARC recommendations, but Chesapeake and Virginia Beach did not. None of the four school divisions favored the JLARC recommendations when questioned in interviews.

Two major changes in the method used to calculate State funding to localities were included in the JLARC reports that were adopted by the General Assembly. The first was the use of a statistical technique known as the linear weighted estimator to calculate salaries for positions funded under the State funding formula. These prevailing salary numbers had been higher in the previous method used by the State and this change impacted State contributions to all divisions. The second major change was the number of instructional positions funded under the JLARC recommendations. The JLARC positions were based on the Standards of Quality and the State Accreditation Standards and were actually higher than the totals previously used by the State Department of Education.

The characteristics of the four cities used as case studies caused varied effects to be felt from the JLARC recommendations that changed the way the State funded the local education programs. Despite the facts provided in this study, the local school divisions and the professional organizations in Virginia had a negative reaction to the JLARC recommendations.
Acknowledgments

Many persons provided encouragement and sound reasoning for my continuation in this effort in spite of some significant interruptions and delays in the process. I am indebted to everyone for their sincere words of support.

Specifically, I would like to mention a few of the numerous persons that made this possible:

My daughters, Jamie and Sarah, for being patient and understanding of the time I spent working on the project.

My parents for their total support and assistance. Even though my father was not here at the end, his desire for me to finish was a primary reason for keeping this project alive.

Dr. Debi Dyer for her persistence and technical assistance in every phase of this process.

Members of my committee, Dr. Mark Fravel, who stepped in as chair and provided guidance, Dr. Jack Robinson for his research expertise, and Dr. Maurice Berube for taking time from his busy schedule to read.

Dr. Van Spiva for serving as chair until his retirement.

Jane Garrett and Dr. Mack Cherry for reading and editing.

All of the persons that consented to be interviewed for this project.

Finally, all of the ODU staff that instructed, guided, and supervised me in this extended effort.

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CHAPTER I

Introduction

Publicly funded education for all children in the United States is an idea that Thomas Jefferson promoted in his writing during the early days of our nation. Jefferson believed that educating the public prevented tyrannical rulers from taking over the newly formed United States. His ideas suggested that a convenient and adequately supported school system would allow citizens to perform their duties better and be more knowledgeable of their rights. His proposal included a three-tier system of schools, including elementary, grammar (secondary), and the university (Wagoner, 1976).

Jefferson failed to convince his State government in Virginia of the merits of his plans. Despite his argument that the cost of this public education system would be "not more than the thousandth part of what will be paid to kings, priests and nobles who will rise up among us if we leave the people in ignorance" (Wagoner, 1976, p. 29), the General Assembly did not approve the idea of public education due to the lack of available funding (Wagoner, 1976).

The country developed without public education, but the need to provide educational services to everyone became more apparent as the population increased. The nation opened its doors to immigrants from around the world. The influx of these persons, as well as the transition of rural America to an urban America, began to crowd the cities. These
masses of people needed education to foster improved economic productivity for the employers in the city during the late 1800's. This trend of people migrating to urban centers added economic reasoning to Jefferson's political and moral reasoning for educating all of society (Thompson, Wood and Honeyman, 1994). In spite of the advice of Jefferson, public schools did not become a reality in the United States until after 1830. By 1870, slightly more than fifty percent of the population between the ages of five and seventeen had enrolled in public schools (Salmon and Alexander, 1995).

Public education is a costly venture. Because funding for public schools is dependent on state and local contributions, many inequities exist between school divisions in the same state. Regardless of the varying degrees of wealth of the local school divisions, state governments have a constitutional responsibility to provide equal educational services to all children. Most states have attempted to use state funds to equalize services, but local involvement causes spending levels for public education to vary greatly despite these efforts (Jordan and Lyons, 1992).

The funding sources for public education are primarily the state government and the local government. The degree to which each should participate is critical when examining issues of pupil equity and taxpayer equity. The State of Virginia, through the General Assembly and the State Board of Education, began using a system in the late 1980's that changed the method of determining the amount of funding provided to the public schools and the distribution of the funding to the respective school divisions. The Joint Legislative Audit and Review Commission, generally known as JLARC, developed the recommendations (Salmon and
This Commission performed evaluation and review responsibilities for the Virginia General Assembly.

Purpose of the Study

The role JLARC assumed was that of a research arm for the General Assembly. In the case studied in this research, JLARC reviewed the specific cost of the State Standards of Quality and the State Accreditation Standards, both of which defined the foundation program for education funded by the General Assembly. JLARC also examined the method used to distribute funds to localities, with specific concern toward improving pupil equity and tax equity in the distribution process (JLARC, 1988).

The purpose of this study was to investigate the effects of the JLARC recommendations on State funding for certain urban school divisions in Virginia. Chesapeake City Public Schools, Norfolk City Public Schools, Portsmouth City Public Schools, and Virginia Beach City Public Schools were used as case studies. The extent to which the JLARC recommendations accomplished the intended goals of determining the cost of the Standards of Quality (SOQ) and developing an equitable distribution method for the funds was analyzed using the four cities as examples of urban school divisions in Virginia. Related issues regarding equity and equalization in State funding for education in urban school divisions were examined in the literature and in court decisions.

Justification for the Study

From 1981-82 to 1991-92, the increase in funding for public education was more than thirty percent greater than that necessary to keep up with inflation. Whether the increases resulted from reforms to programs or from increases in salaries and staff is a significant issue.
More critical to this study is the determination of the source of the increase and, due to litigation brought on by discontent in local districts, the method used by the State of Virginia to distribute funding.

The way in which states set norms and standards for accountability must be addressed when issues related to school finance are considered. In a report by Augenblick, Gold and McGuire for the Education Commission of the States in 1990, the authors emphasized that state finance systems must be revised to focus on the innovation and the changes currently underway in schools. They also noted that the rash of constitutional challenges to state school finance systems that had occurred in the 1970's had diminished in the 1980's. School finance persons became less concerned with funding issues such as the method states used to distribute funds to localities and the specific methodology that determined the amount of funding for each school division. In addition, funding was growing because of a healthy economic environment. This level of comfort changed in the 1990's when the calls for equity, equality, and disparity revived the challenges to the funding issues.

Statistics in the 1990 Report by Augenblick, Gold, and McGuire indicated that this was true in Virginia. During the 1980-90 period, local revenue increased more than State revenue. The contribution of State revenue to local divisions fell from 41.5 percent to 36.4 percent in that decade. Studies by the Virginia Education Association noted this reduction in the percentage of support from the State of Virginia for the same time period (VEA, 1994).

The report and recommendations issued by JLARC embodied a response by the legislature of Virginia to both accountability and full funding
for a specified standard program of education (JLARC, 1986). Reports and research studies by the VEA, the Virginia School Boards Association (VSBA), the Virginia Association of School Superintendents (VASS), and the Virginia Urban Superintendents Association (VUSA) provided analyses of the JLARC report. This study paralleled some other studies, but analyzed primarily the effect of the JLARC report on divisions with urban characteristics. By focusing on divisions located in urban areas, these unique cost factors were identified for consideration when further modifications are made to the funding system in Virginia.

The JLARC study cannot be looked upon as the final product. This study was designed to clarify some issues surrounding the funding formula used by the State of Virginia. Members of the General Assembly, other State leaders, and local governments and school divisions were looking for more equitable funding for the public schools when the JLARC staff undertook the task of costing out the Standards of Quality. This study provided a small evaluative look at the effects of the JLARC recommendations on the calculation and distribution of State funds for education that were adopted by the General Assembly in 1988-89. The extent to which JLARC achieved its goals and moved Virginia closer to pupil and tax equity (particularly in urban divisions) are critical to further considerations for improving the system by the General Assembly.

Another conflicting factor affecting localities at the same time the JLARC recommendations were being considered was the competition for the local revenue in the urban divisions. Brazer and McCarty described the pressure in these urban divisions as municipal overburden, caused by the desire for more services in the city. Police and fire protection, trash services and roads were all funded from city revenues, reducing the
availability of funds for education (Brazer and McCarty, 1989). Due to issues such as municipal overburden and the State funding methodology, urban divisions, such as the four examined in this study, were not likely to be able to provide a high quality educational program for all students.

The Virginia Education Association continues to issue grave concerns regarding full funding for instructional positions actually used in the one hundred thirty seven school divisions (VEA, "Funding", 1993). The teacher salary issue is critical in terms of competing with other states and within this State. State funding for both of these items were major components of the JLARC recommendations (JLARC, 1987). Disagreement on the value of the JLARC proposal still exists.

The questions examined in this research were:
1. How did the recommendations made by JLARC affect State funding to localities in the school divisions of Chesapeake City, Norfolk City, Portsmouth City, and Virginia Beach City?
2. How did the JLARC recommendations accomplish the goals that were intended when commissioned by the General Assembly? Specifically, did the methodology provide more equitable funding among all school divisions?
3. How did the implementation of the JLARC recommendations address municipal overburden and other issues facing urban school divisions in Virginia?

Although hypotheses have been noted as being more useful in carrying out educational research, research questions are frequently used because they do not cause the researcher to concentrate only on evidence to retain or reject the hypotheses (Charles, 1988). In the absence of a
focal point for the study without the hypothesis statement, direction came from the assertion that the JLARC recommendations changed the funding levels for each of the cities noted.

Procedures

To provide evidence of the effect of the JLARC recommendations on the four cities used as case studies, it is important to understand the purpose of the study and the reaction of the school divisions. Careful review of documents made available from the State Department and JLARC determined the direction to of this research. Interviews with key staff in the State Department of Education and other staff in the State bureaucracy contributed to the knowledge base. Data available from the State Department of Education, JLARC, articles and analyses regarding the study provided insight into the opinions expressed by the individuals involved with the State funding issues. Interviews with persons from the finance areas in each school system provided critical information regarding the views of the leaders of school administration in the localities during the time that the JLARC recommendations were presented for review.

A review of the available data provided information for the development of interview guides. Interview guides provided a consistent flow for each interview and kept the process focused. The interviewer used audio tapes and notes to create transcripts of the interviews. Some persons interviewed chose to review the transcripts and make revisions for accuracy; others did not.

Limitations of the Study

The most obvious limitation of case study research is the lack of generalization. The results of a case study can only be generalized to
other situations if that study is similar in characteristics to another study (Anderson, 1990). One reason for the use of four cities with urban characteristics was to focus on issues of particular concern to urban school divisions.

A second limitation of the study is the use of a researcher designed interview instrument. In such a specific topical area as this, no other instrument was available. Interview guides were developed and piloted with appropriate persons not involved in the study.

The persons interviewed for the study represented the finance offices of the school divisions specifically noted in the study and were present when the JLARC reports were made. Three of the four school divisions did not have the same superintendent in office. Key members of the General Assembly were requested to respond in the interviews, but only one actually was able to be scheduled. The key member of the JLARC committee in the General Assembly was contacted, but was not available for an interview.

Definition of Terms

There were a number of terms used in this study that were critical to a clear understanding of school finance and its application to Virginia during this time period. Definitions and explanations of these terms are provided in the following paragraphs.

1. Urbanized area - The U. S. Census Bureau defines an urbanized area as one that has a population of at least fifty thousand persons and a population density of at least one thousand persons per square mile. Within the boundary of the urbanized area there may be some spaces that are less densely settled than the 1000 persons per square mile (i.e., parks, golf courses) (U.S. Census Bureau, 1990, p. 20). Each of the
cities used as a case study in this research is classified by the United States Census Bureau as an urbanized area (Hampton Roads Planning District Commission, 1992).

2. Municipal Overburden - In general terms, this is defined as the struggle between public schools and city governments in competing for the same property tax dollar necessary to operate these organizations (Burrup, Brimley and Garfield, 1993). The problem is complicated by the multitude of services that must be financed in a city such as fire and police protection, water and sewage systems, and paving of streets (Thompson, Wood and Honeyman, 1994).

3. Educational overburden - This is a term used to describe the excessive expense of dealing with urban school problems such as student absenteeism, high educational costs, and high incidences of educationally deprived children (Brazer and McCarty, 1989).

Municipal and educational overburden become relevant issues in a study of funding methodology. JLARC's treatment of these issues showed in their attempts to achieve two other concepts that were specifically defined in their report - pupil equity and tax equity.

4. Pupil equity - In relation to education, this is the means by which a state ensures that all localities have the resources necessary to provide a meaningful foundation program for all students.

5. Tax equity - This is the assurance that funding from local governments necessary to provide an educational program does not vary greatly between school divisions in a state (JLARC I, 1986). As Jordan and Lyons (1992) pointed out, this only meant an equal level of funding for the pupil and an equal tax rate for the taxpayer, not necessarily an adequate level for either.
Thompson, Wood and Honeyman (1994) defined equity as a fair and just means of distributing resources as opposed to the concept of equality, which would require all students to be treated equally. These same authors pointed out that addressing tax equity or pupil equity is not as difficult as addressing the interrelatedness of the two. Clearly, the charge given to JLARC was to consider both (JLARC, 1986).

6. **Equalization** - This is the method of determining state funding to local school divisions which includes a formula making the state payment inversely related to the per pupil wealth of the locality (Jordan and Lyons, 1992). JLARC’s recommendations regarding the distribution of state education funds reflected several options for an equalization formula (JLARC, 1987).

7. **Standards of Quality** - These represent the foundation program for grades K-12 adopted by the Virginia General Assembly and administered through the Virginia State Board of Education. The first attempt at determining the cost of the foundation program came in 1973 (VEA, 1985). This methodology was revised by JLARC in 1986 (JLARC, 1986).

8. **Foundation Program** - A program that is determined by the state to meet the basic needs of all students in the state. It is usually organized and administered in a manner designed to encourage local initiative and efficiency. Foundation programs are defined in the law (Standards of Quality in Virginia) and apply to all divisions in the state. It was introduced into public education in the 1920’s by George D. Strayer and Robert M. Haig (Burrup, Brimley and Garfield, 1993).

9. **Local Composite Index** - This is the Virginia term for a very complicated formula that is used to determine the ability of a locality to pay for its share of the Standards of Quality. It was developed by
the 1973 Task Force and only slightly adjusted by JLARC (VEA, "Prescription", 1993).

10. Average Daily Membership (ADM) - In Virginia, this is the average enrollment in a school division. It is computed by dividing the total number of students into the total number of days of membership for a certain period of time. This number, calculated officially for a seven month period from September to March, is used in the State formula for distribution of State funds and in the Local Composite Index (Salmon and Verstegen, "Update", 1991).

11. Basic Aid - This figure describes the State's share of the Basic Operation Cost for each locality. These costs include the computation of all instructional positions and various support component costs not included in other categories of state assistance. The distribution formula used to compute the total for each division is noted in Figure 1.

The Local Composite Index and the Average Daily Membership are key parts of the State funding formula (Salmon, 1991). The determination of the cost of the basic program uses the Standards of Quality as a basis. This was the major area of study by JLARC.

School finance issues such as pupil equity and tax equity are basic to the overall performance of a school division. The complex calculations that are used by state departments of education to determine funding for educational programs and to establish policy are often difficult to understand. This study provided insight into the use of these terms and attempts to clarify issues specifically related to the JLARC study, State funding policies, and problems in urban education.
The purpose of this study was to determine the effects of the recommendations of JLARC on State funding in certain urban areas and to evaluate JLARC's efforts toward achieving the goals of the project. For this study, the related literature was divided into four major topics based on the general purpose of the study. The topics were: a. basic school finance issues, b. legal challenges to school finance methods in the United States, c. school finance issues in Virginia, and d. analyses of the JLARC studies.

Basic School Finance Issues

In the introduction school finance in the United States was reviewed. Jefferson was recognized as one of the early proponents of a State supported educational system. Many others followed him before schools actually became a budgeted entity and were available to all students. Finding the means to finance the educational program became a primary reason for keeping education out of the hands of the government. That issue remained as the central roadblock to assuring every student a quality educational program, no matter where he or she may reside (Salmon and Alexander, 1995).

In an article published in 1989 through ERIC and the Clearinghouse on Urban Education, valid questions were posed regarding State formulae, equivalent resources, and equality of educational experiences that may or may not be available in an urban setting. State budgets have not kept pace with inflation. This minimizes the effect of state funding, particularly to urban areas that have lost federal funding. States implemented hold harmless clauses in the funding formula which prevent...
affluent school divisions from losing revenue when the method of distributing funds to reach equalization is altered. Failure to reduce the funding of affluent divisions precluded increases in state funds for poorer school divisions until the total revenue for the state expands.

Urban areas are linked with extra costs in education. Included in these factors are higher teacher salaries needed to attract applicants to the urban setting and higher urban construction costs due to land costs as well as costs of material and labor. Vandalism is greater in urban areas, so the cost of security, insurance, and repairs rises. None of these is as expensive as the cost of educating students that live in an urban area. Many urban students tend to be disadvantaged and in need of special services. These services include special education, vocational education, and language education. Finally, the urban area must provide for unique expenditures in areas such as desegregation costs, high student mobility and its effect on finances, and extreme disciplinary measures that tend to be expensive (Ascher, 1989).

In addition to meeting the criteria established by the Census Bureau, each of the cities in the study have characteristics specific to urban areas. Even though state aid to urban localities has grown since the 1970’s, increases have been ineffective due to many factors that impact urban funding. The poorer city has to attract new businesses by giving incentives which reduce gains from the new development. Because there are fewer places for new housing developments, property-based school taxes are only increased by raising rates. Only the elderly and less affluent people are not mobile enough to leave when taxes increase. These persons not only contribute less to the tax base, but are also more of a burden to social services that compete with schools for the
local dollar These groups are generally the smaller portion of the tax base in the urban locality (Ascher, 1989).

Teachers in urban divisions tend to have more experience, thus, receive higher salaries. Due to less attractive teaching environments and fewer supplies, some urban divisions have to pay more to keep good teachers and to attract the best new ones. Costs for construction are greater in cities and the cost of land is higher due to the scarcity of space. Vandalism is significantly more frequent in urban areas. This not only costs more in terms of repair, but raises insurance rates as well. Special education costs are rising, and, because urban students require more special services, the expense to the school system is expanded (Ascher, 1989).

In making an analysis of the effect of JLARC on these cities, the influence of urban characteristics is important. Yates (1982) noted in The Ungovernable City that urban policy-making is unique and leaders have sought to establish effective means to deal with the problems. Education is a large part of the urban setting, and this study examined the extent to which the JLARC report considered urban problems.

In a related work published in 1994, Paul Hill reviewed the ills facing urban public schools as opposed to other schools. The article is aimed at promoting the contracting of public education to private firms or other entities. Hill’s theory supported the idea of releasing urban school systems from some of the strict spending regulations imposed by government. He also supports the contention that urban schools have unique and costly problems.

States gave consideration to many options for equalizing funding between rich and poor districts. In Texas, the Equity Center,
representing some 200 poor school districts in that state, called for $10.5 billion in new state aid to raise all per pupil expenditures to $4,900 by 1994-95. This was proposed to be financed by shifting state funds from districts that are wealthy to the less fortunate ones. The problem with this proposal was that urban areas such as Dallas, Houston, and Fort Worth were considered to be on the wealthy side. Their urban characteristics, though, created many fiscal problems that took away any financial advantage of a high per pupil cost. This was typical of an urban setting (Natale, 1990).

Brazer and McCarty's 1989 article on municipal overburden highlighted the issues facing cities that can cause difficult funding problems. The authors provided evidence that cities with high concentrations of population and poverty were not able to put as much funding toward education due to the dollars needed for other areas. This phenomenon was defined as municipal overburden. The assertion was made that state school aid policy must reflect some extra effort in the urban areas in order to attain equalization. Brazer and McCarty use court cases in New Jersey and New York as examples of the influence of municipal overburden. In both states, courts ruled that the existence of municipal overburden reduced spending in urban schools. Brazer and McCarty also stated that there is considerable evidence to support the fact that divisions whose spending was at a high level for municipal services also spent at a high level for school services.

James Fox, a Senior Economist in the Office of Research for the U.S. Department of Education, did not agree with the theory of municipal overburden as a reason for providing increased funds to urban areas. His contention was that the mere existence of higher non-school spending may
very well be offset by other factors. These factors included taxes from customers living outside the municipality and special grants available only to urban areas. He suggested that some of the services that are costly may be provided to non-urban areas by private sources, thus reducing local government costs and inflating the difference in expenditures (Fox, 1989).

A different view of the plight of the urban division was shown in an article by Minorini (1994) on the equity issue in school finance. Only low wealth school divisions were shown to need relief in most finance equity studies. Minorini wrote that divisions serving students with special needs may be receiving funding equitable with other divisions of similar enrollment but still cannot afford the extra services for special needs students. The increased costs necessary to provide educational adequacy for the high risk students in urban areas created the inequity, not simply a comparison of revenue per pupil.

Tod Porter wrote in a 1991 article that the state of Ohio was concerned with the issue of taxpayer equity. The concept of equal yield in this selection meant that the revenues per pupil will rise by the same amount in each division when the tax rate is increased by one mill. This increase does not provide a solution to the equity issue because the variation in funding was still present. Ohio has been experiencing the same type of enrollment decline during the decade of the 1980’s that some urban areas in Virginia experienced.

The idea that public schools are financially subsidized to provide adequate educational opportunity for all students (pupil equity) has been challenged in terms of the urban division. In a 1991 article, James Gordon Ward stated that persons receiving a high quality education have
a better opportunity to be successful than those who receive an
education of lesser quality. He indicated that a high quality education
is less commonly found in schools in central cities and urban areas than
in private schools or affluent suburbs.

Some moves toward equity suggested that the state needed to become
more of a dominating force than a contributor. If collecting taxes from
across the state to fund education would prevent the leveling off
process in K-12 education that began in the 1990’s, then it should be
started. It may be the only way to completely restructure the move
toward more taxpayer equity without creating political nightmares
(Pipho, 1993).

Pierson defined equity in school finance as "(1) All students of
equal ability should have sufficient financial resources to provide
equal educational resources, however, (2) students who are educationally
disadvantaged need additional resources to allow them to achieve their
full potential" (Pierson, 1990, p. 12). He pointed out in the same
article, that when the gap between students with financial advantages
and students without financial advantages became too large, the
determining factor for the worth of a child’s educational opportunity
became his parents’ place of residence.

Pupil equity in poorer divisions was given some relief through the
use of federal funding. Charles Benson (1991) wrote that the federal
role in programs such as Chapter I (now Title I) of the Elementary and
Secondary Education Act does concentrate funding in schools with large
populations of students from low income homes. This funding, however,
was based entirely on intradistrict disparities, not interdistrict.
Considering the issue of pupil and tax equity as in this study, Title I
funding or any comparable federal money would not make a difference in total funding between divisions. In the same article, Benson also described the lack of taxpayer equity in property poor divisions due to more frequent incidences of incarceration, welfare and poor health. These items drained the public funds and allowed less availability of school support.

The Governor's Commission on Educational Opportunity for All Virginians was created by the Governor in 1990 for the purpose of advising the General Assembly and the Governor of Virginia on the issue of equity in public education programs. Included in the recommendations of this select committee (presented in a Final Report in August of 1991) were suggestions to increase the cap on the measure of ability to pay from the current eighty percent to eighty five or ninety percent and to change the method of funding the Standards of Quality to better reflect prevailing practices. Neither of these recommendations were made by JLARC and both would have significantly increased state funding to localities with poor tax bases (Long and Fields, 1991).

Equity through equalization of spending within divisions of a state school system is not a guarantee of improvements in the classrooms. Toch (1991) reported that the superintendent of the school system in Camden, New Jersey did not believe that putting more money into urban schools guaranteed a difference for students. Toch suggested that parity in spending along with sweeping reform in education would benefit disadvantaged students best.

Jonathan Kozol, in an interview about his book, Savage Inequalities, pointed out that education promotes conferences on a variety of topics, including quality, effectiveness, and excellence, but never on equality.
of educational opportunity. He further stated that the variance in opportunity for students in urban settings is great. Teachers are paid the same or more to teach in better, more affluent settings than in less affluent systems. Students in urban areas necessitate special teaching techniques and materials due to the problems they bring to school. The finance issue to Kozol was very clear. More money in the urban schools was the only way to solve problems such as poor facilities, low salaries, and generally poor conditions. He suggested that property taxes should be eliminated as the primary source for education funding if equity is to be reached. In his opinion, reliance on property taxes will always benefit children of the most privileged parents (Sherer, 1993).

One of the easily identifiable areas of deficiency in the urban school division is in facility maintenance and construction. School repair and construction were costly and often deferred to meet other needs. Maintenance delays or the lack of regular scheduled maintenance resulted in schools aging faster than expected. Plumbing, sewer systems, and heating and electrical systems are outdated and in disrepair (Ornstein, 1990). In Virginia, as is the case in many states, no funds from the state budget are provided directly for facility replacement or additions (VEA, "Virginia", 1993).

Legal Challenges to School Finance Methods in the United States

Equalizing funding for public schools has been a primary concern of educators and politicians for many years. These concerns have been channeled into court challenges in both state and federal judiciaries. Generally, they center around issues related to the Equal Protection Clause of the U.S. Constitution, the equal protection clauses that may
be found in state constitutions, or educational provisions of state constitutions. State provisions usually require public education systems to provide an equal system of education for all children of the State (Salmon and Alexander, 1995).

Challenges to the methods used by states to fund public education have been presented to the courts since 1912, when the case of Sawyer v. Gilmore was heard in the Maine State court. In this case, the basic concern of the citizens was the method used by the state to distribute state funding to localities. Under Maine’s distribution formula, one third of the funding was provided to cities and towns based on the number of students in each school system, with two thirds being distributed based on the assessed valuation of property in each municipality. According to this regulation, school divisions with higher property values received more money. The court supported the state’s methodology in this instance, saying that unequal funding did not violate the constitution of the State of Maine nor the U.S. Constitution (Jordan and Lyons, 1992).

Later cases were not limited to the state courts. In Illinois, the case of McInnis v. Shapiro was heard in 1969 in the federal district court. This case concerned a complaint by a taxpayer who contended that funds were not distributed equitably among the school divisions in the state and that the educational needs of students were not being met in underfunded divisions. Due to this variation in funding, according to the plaintiff, the rights of citizens provided by the Fourteenth Amendment to the U.S. Constitution (known as the equal protection clause) were being violated. The opinion of federal court was noteworthy. It stated that there were no standards upon which the court
could rule on the constitutionality of the distribution methods being used. The decision also indicated that the Fourteenth Amendment did not guarantee quality education, only that all children be treated to at least minimum standards (Jordan and Lyons, 1992). The U.S. Supreme Court affirmed this decision. The federal judiciary refused to support the claims of the citizens that the state funds were being distributed in a discriminatory manner. The decision confirmed the responsibility of the legislative branch of the state government to set the standard for state funding of education (Thompson, Wood, and Honeyman, 1994).

The case of **Burruss v. Wilkerson** in Virginia was similar to the McInnis decision and decided about the same time (1968). The citizens of Bath County claimed that the physical and instructional facilities in their school division were not equal to those of other divisions in Virginia. The Fourteenth Amendment to the U.S. Constitution was used as the basis of their concern. The ruling by the three judge panel of the U.S. District Court stated that the plan used by the State to distribute funds was uniform and consistent. The decision absolved the courts of having the power to align State monies with the varied needs of students in the Commonwealth (Thompson, Wood, and Honeyman, 1994). The courts did indicate that the General Assembly would be the source of relief for the citizens of Bath County (Jordan and Lyons, 1992).

In **Sawyer v. Gilmore** and **Burruss v. Wilkerson**, the courts ruled in favor of the State government and the method of distributing funds to school divisions. The direction of the court changed soon after these two decisions. The landmark case in the area of school finance was **Serrano v. Priest**, an opinion issued by the California Supreme Court in 1971. It was the first major litigation on public school finance filed.
in the state court rather than the federal court. It was also the first decision that actually declared the public school finance system of a state government unconstitutional (Augenblick, Gold and McGuire, 1990).

John Serrano, a citizen served by the Baldwin Park, California County School Division, challenged the state's public school financing plan. He contended that, due to the large difference in per pupil expenditure that existed at that time between localities, students in Baldwin County were not being given equal educational opportunities. Taxpayers in Baldwin County were paying higher rates for the less than equal services. Citizens of areas with high property values (such as Beverly Hills) were paying a much lower school tax than citizens of areas with lower property values (such as Baldwin Park). In addition, the Beverly Hills school division was able to attract the best teachers and afford the newest and best programs due to the availability of local funds to buy those things (Burrup et. al., 1993).

The ultimate issue in the Serrano case and many others nationwide was the significant reliance on property taxes to fund local appropriations for school divisions. Higher real estate values in some localities provided the schools of that division with a financial advantage. The tax burden on the individual property owner may have been less when compared to a locality where the real estate value was lower (Burrup et al., 1993). The result was a lack of pupil equity and tax equity. The Serrano decision by the Supreme Court of California invalidated the state school finance program because it did not meet the assurances of equity under the California State Constitution. It led to many other challenges for public school funding programs in states (Johns et. al., 1983).
The direction provided by Serrano was curtailed by another landmark case in the same time period - San Antonio Independent School District v. Rodriguez (1973). The context of this case was similar to those mentioned earlier in that the interdistrict funding disparities in the State of Texas were being challenged by the school systems not able to compete. In this decision, the U.S. Supreme Court ruled that protection under the Fourteenth Amendment to the U.S. Constitution did not include a quality of education as was challenged (Jordan and Lyons, 1992). After this decision, most school finance litigation was carried out in state courts (Johns et. al., 1983).

A case heard in the New Jersey state court (Robinson v. Cahill, 1973) is cited as the first time municipal overburden is mentioned in a judicial opinion. The court recognized that equalization of funds does not provide the intended result due to the fact that poorer urban municipal governments spend a smaller portion of their total revenues for school expenses. More demands are put on the dollar in the urban setting than in other settings (Brazer and McCarty, 1989).

A case heard in the New York state court (Board of Education, Levittown Union Free School District v. Nyquist) was brought by the four largest cities in the state, not because of low tax bases, but because they were suffering from municipal overburden. The Levittown case also introduced the term “educational overburden” (Brazer and McCarty, 1989, p. 552). This describes expenses incurred by school divisions related to high rates of student absenteeism, large numbers of at risk students, and other high costs of education associated with cities (Brazer and McCarty, 1989). The presumption that underfunding of schools was due to the high tax burden from other government functions was rejected by the
court in this case. The state had met its statutory obligation by providing for a minimal acceptable level of education in the urban divisions (Jordan and Lyons, 1992).

Municipal overburden separates the issue of a low property tax base and the failure of the state to provide adequate funds for education. For example, a city with a strong tax base may not be able to fund education properly due to the other factors impacting their expenses. The courts did not support plaintiffs from urban areas that used their situations as evidence of no equal protection under the Fourteenth Amendment of the U.S. Constitution. Courts have found, however, that spending in urban schools is reduced due to the concept known as municipal overburden (Brazer and McCarty, 1989).

A 1989 decision in Kentucky declared the entire State education system unconstitutional due to the inadequate funding provided by the State. In this case, The Council for Better Education v. Rose, the plaintiffs claimed that there were wide disparities in expenditures between school divisions because of the lack of funding by the state. Poorer school divisions were not able to provide the same educational opportunity as more wealthy divisions (Fulton and Long, 1993). The landmark decision by the Kentucky Supreme Court included a standard that stated that the schools are to be financed by tax resources and these resources should be distributed in such a manner that any child in any community would have the same opportunity for a quality education. The indication was that a school system in a state cannot be efficient if some of the children in that state are denied programs and services due to the place they live (Salmon and Alexander, 1995).
A recent case involving state funding for 28 of New Jersey's poorest divisions found that the school funding formula was unconstitutional for those divisions only. This suggests that the concept of disparity could change the focus of school finance from equalization to actual differences in the amount of money spent in each division. It further suggests that courts recognize the special needs of urban districts with respect to public school funding (Odden, 1992).

This 1990 decision by the New Jersey Supreme Court did cause some concern on the part of educators. The decision outlawed the use of property taxes as the primary means of supporting schools at the local level because of the inequity caused by this method. It gave the state legislature the job of deciding how to make up that difference. The initial plan produced by the legislature increased income and sales taxes at record levels, reduced funding to districts that were considered to be affluent, and made localities responsible for paying teacher pensions and Social Security costs. While this did appear to create parity in funding, it also set the stage for elimination of innovative programs that were generally started only in the affluent districts. The change also threatened the attempt of New Jersey school divisions to upgrade teacher salary scales. Some citizens that had been supportive of education now rebelled against the higher taxes at the state level that were necessary to offset the funding shifts for salaries and programs (Sousa, 1991). The original plan by the legislature was declared unconstitutional, also, by a New Jersey judge in 1993 (Diegmueller, 1993).

State courts in Tennessee, Missouri, and North Dakota also found the state finance systems unconstitutional during the 1993-94 school year.
In New Hampshire and Minnesota, however, during the same time span, school finance systems were upheld. The difference in the opinions resulted from the interpretations over the reference to education in the state constitution. The courts supporting the systems referred to the fact that the constitution indicated that the state was required to provide a basic program. The funding formula did provide for the basic program. In the states that rejected the funding plans in court, the concern was that students in poorer districts were not provided with an equal educational opportunity such as those in more affluent areas (Minorini, 1994).

The Virginia Supreme Court considered the issue of educational disparity in Virginia’s public schools after three years of threatened litigation by a coalition of school divisions in Virginia. The plaintiffs offered evidence that: (1) funding is two and one half times greater in certain Virginia divisions than in others; (2) average teacher salaries are thirty-nine percent higher in certain localities than in others; (3) numbers of instructional positions in the wealthier school divisions are twenty-four percent higher than in the poorer school divisions; (4) spending for instructional materials is almost twelve times higher in some school divisions than others; and, (5) the disparity in State funding has grown by fourteen percent from 1987-88 to 1989-90. This evidence suggested that the quality of education between divisions was significant (Denslow, 1994).

The result of this effort was that the Virginia Supreme Court ruled in April of 1994 that the constitution does not require equity, but only compliance with the Standards prescribed by the General Assembly. This placed the issue back into the hands of the legislature (Denslow, 1994).
There has been much debate about the role of the court in deciding school finance issues. The court's role tends to be one that identifies basic standards that determine whether the school finance system of a state meets the constitutional language requirements. Generally, courts have decided that the legislature of a state is the branch of government that must be convinced to revise finance systems and the court is hesitant to make recommendations. Courts do not issue opinions that require divisions to eliminate property taxes as the main source of revenue for schools. Decisions of the courts have not forced increased taxes, but require that legislatures fully fund the system in place. Rulings requiring full funding usually cause states to revise the system or to increase their percentage of the school funding (Augenblick, Fulton, and Pipho, 1991).

The question of the role of the state in providing equitable funding to public education continues to be a major policy issue. State courts have been called upon to enter the debate and rule on the constitutionality of school finance systems as they exist. As noted in cases above, issues of equity generally involve the amount of money allocated by the state to the locality, but issues of equity translate into more concrete deficiencies. The financial structure dictates the distribution of the best teachers, access to curricular offerings, and availability of high quality facilities and adequate materials. The courts continue to consider these cases as plaintiffs challenge state supported schools through the judicial system (McGuire, 1990).

School Finance Issues in Virginia

As indicated in the Burruss case, Virginia was not immune to these concerns for providing equal educational opportunities for all students...
within the State boundaries. The new State Constitution of Virginia was adopted by an overwhelming margin in 1971 in a statewide referendum. This document established for the first time the goal of creating and maintaining a system of high quality education. In Article VIII, Section I, the General Assembly was charged with providing a "system of free and public elementary and secondary schools for all children of school age throughout the Commonwealth" (VEA Research, p. 3, 1993). In Article VIII, Section II, the Standards of Quality (SOQ) were commissioned, with the General Assembly given the sole authority to approve revisions and additions. The Virginia State Board of Education was assigned the responsibility of creating and revising the Standards and proposing them to the General Assembly for approval (VEA, "Funding", 1993).

A critical point to note in the constitutional reference was the fact that the office of the governor was not mentioned in the framework. The closest relationship the Office of the Governor had was in appointing the members for the State Board of Education. Other influences were by persuasion only (Denslow, 1994).

With the new Constitution in place, the General Assembly of Virginia attempted to address equalization in the early 1970's by creating a special commission to revise the method of funding public school systems in the State. This Commission was called the Task Force on Financing the Standards of Quality. The findings of the Commission established the foundation costs for implementing the Standards of Quality and developed a State formula that provided a methodology for distributing State funds to localities. The local share of this cost was determined by applying the Local Composite Index, which measured the local division's ability to pay based on a number of economic factors (VEA, "Funding", 1993).
The findings of this commission addressed the prescribed issues, but, without full knowledge of the impact of the newly established Standards of Quality, they were limited in their efforts to meet the needs of Virginia students. Until Standards were actually created and implemented, no evaluation procedures or cost/benefit analyses could be performed. The Attorney General of Virginia issued an opinion in 1973 that encouraged the Standards of Quality to be prescribed based on the "Commonwealth's current educational needs and practices" (VEA, "Funding", 1993, p. 9). This opinion also urged the Assembly to look at actual costs of programs and actual salaries in computing the cost of the Standards (VEA, "Funding", 1993).

The report of the Task Force was not the answer that the General Assembly was trying to find. As noted by Philip Leone, the Director of the Joint Legislative and Audit Review Commission in the JLARC I Report (1986), questions were raised concerning the cost of the SOQ’s and whether the State was really funding them at the level that would provide an equal educational opportunity for all.

In 1982, the Virginia General Assembly assigned a similar task to another commission. The specific charge was to examine the progress made in meeting the needs of the State in funding public education according to the new standards. The General Assembly requested a review of the method used to determine the cost of the SOQ’s for each locality, and the method of distributing the State's share of the cost of the SOQ’s to the localities.

The organization charged with the responsibility of carrying out this study and making recommendations to the General Assembly was the Joint Legislative and Audit and Review Commission (JLARC) (Finley,
This group had been in existence since 1973 and was created to review and evaluate the operations and performance of State agencies, programs and functions. It was composed of nine members of the House of Delegates (five of whom serve on the House Appropriations Committee), and five members of the Virginia Senate (at least two of whom serve on the Senate Finance Committee). They elected their own chairperson, and that person usually rotated every two years between the House and Senate. An ex-officio member is the Auditor of Public Accounts. There was a full-time staff serving the Commission, with a staff director who is appointed by the Commission and approved by the General Assembly for a six year term. The Commission gets its specific mandates from Sections 30-56 through 30-63 of the Code of Virginia (JLARC, 1993).

The results of the Commission's study of education funding in Virginia (concerning the methodology for determining the cost of the Standards of Quality) were released in 1985. In 1986 the results of the study of the method of distributing State funds to the localities were released. The General Assembly adopted most of these recommendations for the 1989-90 State Budget. This methodology has been used since that time to calculate the cost of the SOQ and to distribute State funds to localities (Finley, 1989).

As noted by Richard Salmon and Deborah Verstegen in their 1988 paper on Virginia School Finance, the results of the JLARC study were apparent when Governor Gerald Baliles gave his 1988 State of the Commonwealth address. He proposed the idea of moving Virginia to a nationally recognized position in education excellence. To do this, he suggested that the state must reduce the disparity in funding between local school divisions, raise teacher salaries statewide, lower the pupil/teacher
ratio in classrooms, and reduce illiteracy and the dropout rate. In his budget submitted that year, he included an additional $554 million for the next biennium and the recommendations regarding revisions in the funding formula. Salmon and Verstegen questioned the proposal in relation to State law for equal funding, and the differing ability of local school divisions to provide support for public education.

Specifically, Salmon and Verstegen pointed out the following ideas included in Baliles' budget: "a. variable staffing ratios; b. statewide salary costs; c. eight percent per year instructional salary increases; d. cost of competing clauses for Northern Virginia; e. SOQ costs as proposed by the Board; f. the first phase of equalization for fringe benefit funding; g. a new way to reimburse for transportation; h. equalization of vocational, gifted and talented, and special education funding; i. assumption of more of the total SOQ cost by the State, increasing from fifty percent to fifty-five percent at the rate of one percent per year; and, j. the use of adjusted gross income in the place of personal income in computing the composite index" (Salmon and Verstegen, 1988, pp. 2-3). According to an administrative source at the State Department of Education (personal communication, February 9, 1995), not all of these proposals were directly related to the JLARC study.

Whether or not these proposals helped Virginia reach equity in State funding to localities is debatable. One of the most prominent reasons used to exemplify inequities in school finance is the heavy reliance on property taxes as a major source of local revenue for schools. Property poor divisions must have high property taxes to fund education. Even with the higher taxes, these divisions are not able to provide equal
educational services when compared to property rich divisions that have even lower tax rates. The four cities in this study have variable amounts of local revenue and are affected differently by the State funding formula (Virginia Department of Education, 1994). The effect of the JLARC study on the State funding for each provides evidence of the implications for urban areas.

In a study completed for the Virginia Education Association (VEA) in 1985, a group of researchers made up of VEA staff, college professors and local division personnel reported on the cost of the Standards of Quality. The VEA reported that, since their creation shortly after the new State constitution in 1971, these Standards had not been fully funded by the State Board of Education. The evidence supporting the underfunding of the SOQ’s was that the State used averages for teacher salaries and a low number of instructional positions per 1000 students to calculate funding for localities. While other issues existed, these two items formed the basis of the concerns. The VEA quoted opinions of the Virginia Attorney General to support its contention that the State did not fully fund the Standards. A 1975 opinion pointed to the fact that the calculations used to fund the Standards were not precise. The Attorney General continued by noting that actual practices and actual costs should be used in calculating the cost of the SOQ’s, and, in turn, funding for localities (VEA, 1985).

Concerns such as these as well as the growing litigation in the area of State support for public schools pushed the General Assembly to charge the Joint Legislative and Audit and Review Commission to examine the methodology for funding public schools in Virginia. The results of the Governor’s Commission on Excellence in Education in 1986 noted the
disparity in the public schools as a major obstacle to Virginia's becoming a national leader in quality education. This assignment to JLARC was the response of the General Assembly to these issues (Finley, 1989).

The JLARC recommendations did not address the concerns of disparity nor did they address the content of the Standards of Quality. The goals of JLARC were to cost out the Standards and to revisit the distribution methodology (Finley, 1989). Results of studies on education in Virginia do not suggest that looking at these areas will result in improving the quality of education in the Commonwealth. Studies such as the 1991 Governor's Commission on Educational Opportunity for All Virginians clearly pointed out that the current standards were less than that required to provide a quality education (Commonwealth of Virginia, 1991). This lead to the need for the locality to provide funding for any additional staff or programs costs to ensure a quality education, but only to the extent that each locality could afford the costs (Denslow, 1994). The final report by the Commission reflected four major principles, each of which contained references to equity for students. Fiscal equity was implied in the sense that providing student equity would be costly. Mentioned in the first principle was the belief that fiscal equity should not be achieved by limiting local support (Report of the Commission on Educational Opportunity for All Virginians, 1990).

Capital outlay funding in Virginia for public schools is provided only as loan assistance to the school divisions. Although the money from the Literary Fund is provided at a low interest rate, it must be repaid through operational funds. No assistance is provided from the State. Virginia is the fourteenth wealthiest state in the United States, yet
ranks forty-sixth in providing operational funding for its public schools. With this arrangement in place, a locality is again burdened with the cost of construction for new and renovated structures. Municipal governments are forced to increase their debt to provide the facilities necessary to house public school students. Because urban areas may have low assessed value of property, this affects their borrowing limit. The result is that a large inequity exists in the ability of localities to provide facilities, and many poorer divisions must continue to use old, costly structures to provide educational services (Spiva, 1994).

**Analyses of the JLARC Studies**

Numerous studies related to the JLARC recommendations were initiated after presentation of the reports in 1986 and 1987. The VEA provided the most information related to the studies, and continues to generate information related to state funding to localities and the State formula today.

A large portion of all of the statistical analysis of the JLARC studies were assimilated by Dr. Richard Salmon of Virginia Polytechnic and State University and Dr. Deborah Verstegen of the University of Virginia. Before they worked for the professional organizations, they reviewed the early JLARC reports on their own. This was followed by separate reports for the VEA and the Virginia School Boards Association and other work done individually by each author.

Dr. Salmon contributed to a report on the cost of the Standards of Quality and teacher salaries before either JLARC document was presented for consideration. The primary focus of this document was to criticize the lack of full funding for the Standards of Quality and to point out
the deficiency in teacher salaries in Virginia. A 1973 opinion of the Virginia Attorney General opinion suggested that the Standards should be funded based on the current practices in Virginia schools and current costs. This notion opposed any arbitrary figure computed without consideration of actual costs currently in schools around the State. The example of the per pupil expenditure used in the 1985-86 school year to generate State funding was over two hundred dollars less than the actual average in all school divisions in Virginia.

The primary legislative goal of the Virginia Municipal League for the 1984 General Assembly session was full funding of the Standards of Quality. The League suggested a one percent statewide sales tax to fund the Standards. They were very concerned about the continued burden on the locality to make up the difference in education funding. A study conducted by JLARC on local mandates and fiscal resources (a different study than the one examined in this paper) reported that the local governments were fiscally stressed. The solution suggested was additional revenue at the state level (Posiavich, 1984).

Teacher salaries, as well, were lower than the national average and considerably lower than the VEA wanted them to be. Even though some attention had been given to this issue by the General Assembly in recent years, the ranking of Virginia’s teachers had risen only from 34th in 1981-82 to 28th in 1984-85 (VEA, 1985).

General Assembly members listened to concerns such as these. They felt obligated to call for the JLARC study, so when Part I and Part 2 were released in 1986 and 1987 respectively, the VEA immediately began to look at the effect on funding to localities and the methodology used. There were seven options presented by JLARC in the funding methodology.
(Part 2), and divisions were determined to be winners or losers based on a comparison to the previous state funding level. The projected funding level was estimated for each of the seven different options. The exact data used to formulate the options and the calculation methodology were not available from JLARC, so estimates were made based on the total new dollars available in each option (Salmon and Verstegen, 1987).

The VEA study by Salmon and Verstegen (1987) pointed out that any comparison of the new options with the previous methodology should consider that each of the seven choices provided by JLARC contained a significant amount of new revenue. The only way to compare the previous methodology with the new methodology was to distribute the additional funds in the same way the current financial system would have distributed them.

The VEA analysis and the VSBA analysis, both done by Salmon and Verstegen, were completed in December of 1987, just after the release of JLARC. The General Assembly was not yet considering the recommendations. Governor Baliles included in his 1988-90 Budget Request (presented in December of 1987) parts of the JLARC recommendations and part of the recommendations from the Commission on Excellence in Education. The inclusion of both sets of recommendations resulted in an increase of five hundred and fifty four million dollars in State funding to public education.

The increased funds for education came at the same time as the recommended changes from JLARC. The 1988-90 budget recommendation included a number of new initiatives that accounted for the increase in funding, including, but not limited to an eight percent increase in teacher salary for each year of the biennium, a new requirement for
elementary guidance counselors, funds for a duty free lunch for teachers at the elementary school and an increase in funding for Northern Virginia localities to enable the schools to compete for the best teachers in their region (Salmon and Verstegen, 1988). The early estimates made by Salmon and Verstegen (1988) did not show conclusively that the goals of pupil and taxpayer equity were achieved by the Governor’s recommendation.

Salmon and Verstegen completed a follow up study in 1990 that reported on the effect of the new funding system initiated by the JLARC study. In the analysis, it was reported that, even though the goal of JLARC was to improve pupil and taxpayer equity, the gap between affluent school divisions and poorer school divisions in Virginia had widened since the JLARC recommendations were adopted (Salmon and Verstegen, 1990). This same report was updated in June of 1991 by Salmon and Verstegen and supported the same theory. “Because the goal of a state finance system is to counteract the effects of local fiscal capacity on education opportunities, the finance formula enacted in the 1988 General Assembly continues to be impotent” (Salmon and Verstegen, 1991, p. 2).

One of the most criticized components of the JLARC recommendations adopted by the General Assembly for the 1988-90 biennium was the method used to calculate salary costs under the Standards of Quality. The position of JLARC was that the use of the statistical method known as the Linear Estimator was the most appropriate way to calculate an actual salary amount. They reported that this method had the most consistent low error across all distributions of the salaries used. Prior to the use of the Linear Estimator, a statewide average was used in calculating the cost of the Standards of Quality. JLARC found, however, that the
statewide average was never recognized when final funding levels were calculated. In addition, the Virginia Department of Education noted that the statewide average salary accurately represented only about 45 of the school divisions across the State (JLARC, 1988).

The VEA opposed the use of the Linear Estimator because it had the effect of depressing the funding of the Standards of Quality. It was a predictor tool that was used with sample data and was designed to be used with population data sets. The calculation of the salary using this statistical method utilized the mean of school division's classroom teacher salaries rather than individual salaries paid to teachers (VEA, "Virginia", 1991).

Specifically, the VEA used the example of the actual average salary of Virginia classroom teachers in 1988-89 in comparison to the prevailing salary calculated by JLARC. The difference in the two was over seventeen hundred dollars. The use of the Linear Estimator resulted in a loss of six to seven percent when compared to actual average salaries in 1988-89 for all instructional personnel. The VEA suggested replacement of the Linear Estimator with the arithmetic mean or the median salary to determine salaries of personnel funded by the State (VEA, "Virginia", 1991).

In addition to concerns for the Linear Estimator, the VEA also disputed the number of instructional positions calculated using the JLARC methodology. Using actual State figures for 1980-81 through 1992-93, they estimated that the State consistently funded between eight and ten fewer instructional positions than the localities employed, meaning that the local tax base assumed the full salary and fringe benefit costs
for each of the positions not funded by the State (VEA, "Funding", 1993).

Included in the JLARC method was a continuation of the cap on the required share a locality must provide toward full funding of the Standards of Quality. The maximum allowable amount remained at .8000 (or eighty percent) of the total cost of the program. This provision guaranteed that high fiscal capacity divisions will receive State funding as more of the programs are equalized to achieve greater equity. VEA pointed out that, if the total amount of funding is not increased, retaining the cap would detract from the effort of attaining more equity (VEA, 1988).

The overall attitude of the VEA toward the JLARC reports went farther than the specific criticisms noted above. The failure of the JLARC recommendations to achieve the goal of improving equity between affluent and poor divisions was only partially due to the methodologies. Both in terms of teacher salaries and instructional staffing, the State did not provide resources in total that would lead to the improvements necessary to bring equity. JLARC was based on minimum costs that understated the actual dollars necessary to provide the high quality education called for in the Virginia Constitution (VEA, "Virginia's", 1993).

The Virginia School Boards Association (VSBA) provided its members with information similar to the VEA. The VSBA utilized the services of Salmon and Verstegen in making its recommendations, so the report sent to the School Board members across the State reflected similar conclusions to the VEA information (Salmon and Verstegen, "VSBA", 1987).
School Boards were primarily interested in the impact of the recommendations on the funding for their divisions.

The Virginia Municipal League (VML) provided its city and county government members with basic information about JLARC, but did not offer opinions. The VML information related primarily to the local match required with each option (Denslow, 1988). In an article written for Virginia Town and City in May of 1989, Suzette Denslow, the director of research for the Virginia Municipal League stated the following concerning the JLARC recommendations adopted by the 1988 General Assembly: "In a normal redistribution process, half the localities win and half lose; however, this process differed from this norm in that very few localities felt the changes had a beneficial net effect" (Denslow, 1988, p. 13).

The Coalition for Urban Superintendents, made up of 13 urban school divisions, issued concerns about the JLARC recommendations. Their response to the options was similar to VEA, stating that the number of instructional positions funded did not equal the number actually used in urban divisions and that the salary calculation was too low. In addition, the Coalition suggested that some provision be included to share the cost of renovations and new buildings due to the excessive problems facing urban areas in capital needs (Bruno, 1987).

The VEA produced a proposal for fixing the funding formula in 1994 in a presentation prepared for local governing bodies and school boards. It encompassed much of the criticism aimed at JLARC by their earlier reports. Basically, the VEA proposal suggested that the Basic Aid Formula reflect more realistic costs than the calculations in JLARC. This was done by using the actual number of instructional positions
school divisions use instead of the numbers currently included in the formula. Probably the largest increased dollar amount came from the calculation of salary and benefits under a new methodology designed by the Virginia Education Association. The salaries would be computed at a much higher rate, not at the rate used for by calculations using the Linear Estimator. Fringe benefit costs would increase because the State would provide more funding for health insurance and State retirement costs (VEA, 1994).

The VEA's proposal would cost hundreds of millions of dollars each year for the State government, and, because of the local required match, the municipal governments as well. The VEA suggested that the revenue to offset the increased funding for schools be generated from increased taxes (sales tax, personal income tax, corporate taxes, and tobacco products taxes). The logic of increased taxation is defended by reference to Virginia as a low tax State in comparison to other states (VEA, 1990). Another option, in lieu of raising taxes, would be to shift State priorities to afford the changes (VEA, 1994).

Summary

A review of the literature related to State funding for public schools and funding in Virginia particularly initiated several questions related to key themes. These questions are noted below in two sections. The first section deals with school finance in general.

1. How do State funding methodologies achieve pupil equity and tax equity?

2. What is the role of equalization in state funding to public education?
3. How does municipal overburden affect the formula used to fund public schools?

The second set of questions related to Virginia, the JLARC study and the ultimate recommendations adopted.

1. Why did the professional organizations oppose (in general) the results of the JLARC study results?

2. Did JLARC achieve its stated goals?

3. How did JLARC consider special circumstances of urban school divisions when conducting the study?

4. How did JLARC involve the local divisions in developing their recommendations?

5. What were the most effective elements of the JLARC recommendations as adopted by the General Assembly in 1988?

6. What recommendations could be made to improve the State funding methodology in Virginia considering the problems that have developed since the implementation of JLARC?
Chapter III

Method

Introduction

This chapter outlines the research method and the plan for conducting the study. The method used to conduct the research involves the basic research questions, the participants used in the case studies, the procedures followed, and a discussion of the case study research design.

Statement of Research Questions

The questions used in this study were derived from an analysis of the literature and the continued concerns of school divisions and other professional organizations in Virginia regarding the method used by the State to fund public schools. Previous studies have examined the JLARC recommendations, but this research examines specifically the effects on the four urban municipalities used as participants in the case studies and how these effects were aligned with the goals of JLARC.

The questions examined in this research were:

1. How did the recommendations made by JLARC affect State funding to localities in the school divisions of Chesapeake City, Norfolk City, Portsmouth City, and Virginia Beach City?
2. How did the JLARC recommendations accomplish the goals that were intended when commissioned by the General Assembly? Specifically, did the methodology provide more equitable funding among all school divisions?
3. How did the implementation of the JLARC recommendations address municipal overburden and other issues facing urban school divisions in Virginia?
Participants

The effect these recommendations have had on school divisions in Virginia (and particularly urban school divisions) was the focus of this study. Four school divisions were used as case studies. These divisions are Norfolk City Public Schools, Virginia Beach City Public Schools, Chesapeake City Public Schools, and Portsmouth City Public Schools. All four divisions are located in the Metropolitan Area known as South Hampton Roads. Each of the cities is classified by the United States Census Bureau as an urbanized area (Hampton Roads Planning District Commission, 1992).

The U. S. Census Bureau defines an urbanized area as one that has a population of at least fifty thousand persons and a population density of at least one thousand persons per square mile. Within the boundary of the urbanized area there may be some areas that are less densely settled than the 1000 persons per square mile (i.e., parks, golf courses) (U.S. Census Bureau, 1992).

In addition to meeting the criteria established by the Census Bureau, these cities each have characteristics of urban areas. Ulysses Van Spiva (1991) defined the special characteristics of urban schools as “extreme poverty, children speaking foreign languages, increased crime rates, substance abuse, and diminished resources” (Spiva, 1991, p.2). These may not be totally unique to urban areas, but, according to Spiva, the scale and intensity of the conditions are higher in urban divisions than in non-urban divisions.

Urban divisions have a wide variation of students and programs within their school buildings. Divisions and states tend to treat all schools the same, even though these differences exist. The needs of the
urban schools are so numerous, and the funding so limited, that attempts to make a difference often fail for lack of resources and/or commitment from the division or the state. This causes the urban school to shy away from new ideas due to these problems (Louis and Miles, 1990), often related to funding.

The differences in the demographics and fiscal outlook for each of the cities were important in making them part of the study. While serving the same Metropolitan Area and having the same general economic forecast, some key statistical comparisons show that each one is unique. Portsmouth is the poorest of the four cities, with a decreasing population and a tax base that is growing at a smaller rate than any of the four. Norfolk also has a decreasing population, but the tax base of the city is more stable than that of Portsmouth. Chesapeake is growing in population and in its tax base, having not yet felt the strain of rapid growth on such services as education. Virginia Beach is also growing, having gradually replaced Norfolk as the leader in population and taxes collected over the past twenty years; however, its growth has subsided in recent years (Hampton Roads Planning District Commission Data Book, 1994).

The Case Study Methodology

Borg and Gall (1983) described the case study approach as "the collection of very extensive data in order to produce an in-depth understanding of the entity being studied" (p. 489). Yin (1989) described the case study design as "an action plan for getting from here to there" (p.28). The divisions selected for this case study represented varying levels of student population with different tax structures and state formula characteristics. Two of the divisions are gaining students
and two are losing students. Two are older urban core cities and two are relatively new cities that also have urban characteristics.

Mohr (1992) supported the validity of case studies in research both in terms of internal and external validity. He proposes that the reference to the limitations on case study research due to these concerns are "superficial and overdrawn" (Mohr, 1992, p.1) because there are no designs that provide a high degree of either type of validation.

A strength of the case study design is the incorporation of multiple sources of data. Other methodologies may focus all attention and all conclusions on one test or one other evaluation instrument. The use of interviews, specific data, and other documentation provides opportunity for different evidence leading to the conclusion (Patton, 1987).

Stake (1993) described case study research as being a method for seeking what is common and what is unique about the case or cases. The most difficult decision made by the researcher is determining the degree of complexity to be included. Not every detail can be examined or understood, but enough must be presented to build the theory. Using various procedures for data gathering in order to reduce the chance for misinterpretation (triangulation) is a strength of the case study (Stake, 1993).

**Data Collection and Analysis**

Data were collected through the use of interviews, review of key documents at the State and local level, review of specific reports available regarding the JLARC recommendations, and other supportive data that were provided to General Assembly members and local school divisions. Analysis of similar issues in different states provided comparative data for use in summarizing the Virginia issues.
The semistructured interviews clarified the factual issues and provided insight into the opinions of key persons involved in decisions and implementation. Yin (1994) noted that interviews were "...an essential source of case study evidence because most case studies are about human affairs. These human affairs should be reported and interpreted through the eyes of specific interviewees, and well-informed respondents can provide important insights into a situation" (Yin, 1994, p. 85). Persons interviewed included key individuals in each division. In all of the divisions, the person interviewed was a key financial administrator. One superintendent was interviewed. He was the only superintendent in the four divisions still in office since the implementation of the JLARC recommendations. The Virginia Education Association studied the JLARC recommendations extensively before and after their implementation. The director of their research office provided an interview for use in this study. A key member of their research team also was interviewed. He is a nationally recognized researcher in school finance.

To provide balance to the study, one of the leaders of the JLARC team that conducted the study leading to the final recommendations presented to the General Assembly was interviewed. The Secretary of Education in the office of the Governor of Virginia during this period participated in the interview process and provided key insights into the use of the JLARC recommendations in preparation of the Governor's budget for the 1988-90 biennium.

Three interview guides were developed. An interview guide is a specific list of ideas or questions explored during the interview and keeps the session in line with the research questions (Patton, 1987).
One was used with the JLARC staff member and the Secretary of Education for the State of Virginia during the period that JLARC was adopted. Another guide was used with State Department of Education Budget Department staff members and other researchers on the technical side of the JLARC recommendations. The third guide was used with key staff members in the subject divisions and was designed to answer the following questions: (1) what effect did the JLARC recommendations have on the level of State funding for the locality when compared to the years before the implementation of the recommendations?, (2) what were the goals of JLARC as communicated to the localities?, (3) what effect does municipal overburden have on funding for your division from the locality?, (4) what costs are unique to urban school divisions?, and, (5) what input did the localities have into the JLARC recommendations prior to their presentation?. The interview guides used with the technical persons and the local officials were reviewed by school financial administrators not involved in the study prior to use. This expert review provided the researcher with insight for wording and clarity of the questions. Minor changes were made to the guides after the expert review.

The interview guide used with the JLARC staff member and the former Secretary of Education was developed after completing the interviews with the localities. Some key themes developed in the early interviews that needed to be addressed were added to the guide. The original intent was to use the technical questions, but the interviews with the division personnel suggested to the researcher that some of the key ideas in their interview guide should be added to the interview questions for these two key individuals. Miles and Huberman (1994) recommended that
front end instrumentation should be revised during qualitative research as key themes are developed during the study. The key to the revisions is the skill of the researcher. The skills of the researcher, according to Yin (1994) include the ability to ask good questions, to listen carefully, to be flexible, to have an understanding of the key issues being studied, and to be able to be impartial in conducting the study.

The researcher was qualified to conduct this study because of his graduate degree in education and his 26 years of experience in public education. During these years of experience, the researcher spent the last twelve years working directly with the budget and finance area of public school administration. He was in this capacity when the JLARC study was released and when the recommendations were adopted. He has extensive experience at the highest level of educational administration and is impartial toward the subject area due to his concern for improving the understanding of school finance issues.

The questions in the interview guides were developed from the basic concepts of the three major research questions (see Appendix A). Each question in the interviews related to one or more of the research questions. During the review of the documents and related research, pattern codes were developed to collect the data in specific areas that relate to the research questions of the study. Some of these codes were determined prior to the interviews or the document review, but most were determined as the data were collected. Some of the key issues used in the coding were pupil and tax equity, equalization, urban influences, and attitude toward the JLARC recommendations. Pattern codes identify key themes and patterns as they develop in the study. The purpose of the
coding structure was to organize the data from interviews and other qualitative methods that tend to be lengthy (Miles and Huberman, 1987).

The interview transcriptions were coded and summarized and used in the development of the case analysis. The cross case analysis developed from the summary of the transcripts, the review of the documents from each division, and a review of other documents from professional organizations, key individuals involved in the study or related studies, the State Department of Education, and JLARC.

The documents reviewed were the reports of the JLARC to the General Assembly, the records of the State Department of Education regarding funding to the localities for years before and after implementation of the JLARC recommendations, the records of the localities regarding State revenue, and general demographic data about the four subject cities. In addition, significant data were available in related research regarding funding for education and similar issues in other states.

An electronic spreadsheet was used to consolidate and analyze demographic and financial data for each school division and city. The coding system utilized with the interview transcripts reflected review of these data and provided an organizational pattern for the multiple sources.
Chapter IV

Results of the Study

The purpose of this study was to determine the effects of the JLARC recommendations on certain urban school divisions and to use these results to evaluate JLARC's effort to attain the goals set forth by the General Assembly. This chapter addresses the results of data analysis on interviews and document review. A review of the background to JLARC and summary of the actual reports from the Joint Legislative and Audit Review Commission are presented first. The basic information included in the actual reports given to the General Assembly was critical to the analysis of data and is summarized to clarify items referenced in the interview analysis. The specific changes brought about by each JLARC report are provided.

Individual profiles of the cities follow the discussion of the JLARC Reports, including a review of statistics recorded prior to the JLARC study as well as the most current information available. These data provided the basic economic and education funding trends for each city and its respective school division used in the study and provided support for the case analysis.

A cross case analysis is presented and discussed using the emerging themes as an outline to the discussion. The summary utilizes the results of the document review and the interviews to describe the critical information that best responds to the research questions. The emerging themes were compared to the concepts developed in the review of literature and discussion was presented when necessary to support or refute the theoretical framework. References to persons interviewed and the information gained throughout the interviews are provided with
careful concern for the political nature of this topic and the possible impact on their positions. The issues regarding state funding to education and specific urban issues continue to be pertinent and controversial.

Summary of the JLARC Reports

The JLARC reports on the cost of the Standards of Quality and the funding methodology for public education in Virginia were made to the General Assembly in 1986 and 1987, respectively. It is important to highlight the background of JLARC, the agency that conducted the review.

JLARC was created in 1973 as an oversight agency for the Virginia General Assembly for the purpose of reviewing and evaluating the operation and performance of State agencies. The Legislative Program and Evaluation Review Act established this commission in 1973.

JLARC is composed of nine members of the House of Delegates and five members of the Senate. The Auditor of Public Accounts serves as an ex-officio member. At least five of the House members must serve on the House Appropriations Committee and at least two Senators must serve on the Senate Finance Committee. Delegates are appointed by the Speaker of the House, and the Senators are appointed by the Privileges and Elections Committee. The chairman of the Commission is selected by the members of JLARC for a term of two years, usually rotating between members of the House and Senate each term.

JLARC employs a staff, the director of which is appointed by the Commission, approved by the General Assembly and serves a six year term (JLARC, 1993). In addition to the director, the JLARC staff consists of twenty-eight researchers. The formal education of the members of the professional staff includes degrees in business administration,
economics, computer science, education, planning, political science, and urban systems. There are two research teams and a full complement of support staff for research, computer assistance, and printing. JLARC staff members generally have experience in public administration or policy analysis and a strong base of quantitative skills (JLARC, 1993).

The more specific definition of the function of JLARC was to "...address: (1) areas in which functions of State Agencies are duplicative, overlap, fail to accomplish legislative objectives, or for any other reason should be redefined or redistributed, (2) ways in which agencies may operate more economically and efficiently, and, (3) ways in which agencies can provide better services to the state and to the people" (JLARC, 1993, p. 4). Agencies of the State are requested to respond to actions taken to support the Commission's findings and recommendations (JLARC, 1993).

In 1982, JLARC was directed to study the effects of State mandates on localities and the general fiscal condition of the local governments in the Commonwealth (Finley, 1989). The results of that study showed that the cities were in a state of fiscal stress (Posiavich, 1984). JLARC reported that the State had not kept pace with the constitutional commitment to fund the mandates issued through the Standards of Quality. The results of this study led to the 1982 direction from the General Assembly that JLARC analyze and assess the funding of the SOQ (Finley, 1989).

JLARC's review of public education was officially scheduled by action of the Senate of Virginia (Joint Resolution 35) in the 1982 session of the General Assembly. The first part of the study analyzed the funding of the Standards of Quality (JLARC, 1986).
JLARC I. The first phase of the JLARC Report on the Standards of Quality addressed specifically the cost of implementing the existing standards. In 1971, with the adoption of the Virginia Constitution, the citizens of the Commonwealth agreed to allow the General Assembly to have responsibility for providing "...a system of free public elementary and secondary schools for all children of school age throughout the Commonwealth (Code of Virginia, 1992, p. 13). The Constitution further stated that the General Assembly "...shall seek to ensure that an educational program of high quality is established and continually maintained" (Code of Virginia, 1992, p. 13). The General Assembly carried out this constitutional requirement by prescribing the Standards of Quality, which could be revised by that body upon recommendation of the State Board of Education. These Standards constituted the foundation program for all students in the public schools of Virginia (JLARC, 1986). The Virginia Constitution directed the General Assembly to determine the provision of the funds that were needed to pay for the foundation program and the division of costs between the local governments and the State.

In order to carry out this massive responsibility, the General Assembly enacted legislation that established a commission to develop the standards and to determine the means by which they were to be funded. In 1974, the legislature adopted the Standards of Quality. The cost of implementing these standards was to be developed by the State, with the total cost computed on a per pupil basis. This per pupil cost determined the cost of the foundation program for each school division. The one cent sales tax amount that was already distributed to each division was subtracted from the total program cost, leaving an amount
per division to be divided equally between the State and the local governments (fifty percent for each). The equal division was adjusted by a local composite index. The local composite index was an estimate of the locality’s ability to pay, based on such measures as true value of real estate, personal income, taxable sales, average daily membership in public schools, and population (Governor’s Commission for Educational Opportunity for All Virginians, 1991).

The methodology for determining State funding was not changed for over twelve years. The JLARC study of State mandates and the effect on localities indicated to the General Assembly that the Standards of Quality were not being funded adequately by the State. This information, as well as the constant complaint from the Virginia Education Association and local school divisions that the Standards of Quality were not being fully funded by the legislature (VEA, 1985), led the General Assembly to take action during the 1982 session. They authorized JLARC to evaluate the method of determining the cost of the Standards of Quality followed by a study of the methodology for distributing the State’s share of the funding for these standards (JLARC, 1986).

The first part of that charge became known as JLARC I. In the preface to this document (written by the director of JLARC, Philip A. Leone), some key facts detailed the work done by the agency. In his preface, Leone clearly stated that Part I of the report dealt only with the cost of implementing the existing standards. The issue of equity in the distribution of the State’s portion of this cost would be the subject of a second report to be presented to the General Assembly in 1987.
JLARC I reviewed the method used by the State Department to calculate the SOQ costs for the past twelve years. In that assessment, it was determined that the cost estimates made in the past were overstated in the areas of the instructional personnel component and the support costs (JLARC, 1986). The overstatement did not suggest that the State paid school divisions too much money. According to State Department of Education personnel in the offices of Budget and Compliance (personal communication, February 9, 1995), the estimated cost of fully funding the Standards of Quality was included as a budget recommendation each year, but limited resources prevented the full request from being adopted. The failure of the State Government to pay for the SOQ at the rate calculated by the State Department of Education was the evidence used by critics to claim that the constitutional requirement was not being met by the General Assembly (VEA, 1985).

The actual calculation of SOQ costs used by the State Department of Education utilized staffing standards to estimate the cost of instructional positions. The salary estimate used was the average salary for each position calculated statewide. An average of all other support services costs were estimated using State averages as well. Support services include administration, health, transportation and maintenance. There were no specific standards relating to these support costs that could be used to calculate positions per division.

JLARC decided to revisit these calculations for two reasons. First, new data sources and new technology were available for use that had not been available twelve years ago when this methodology was begun. Secondly, the standards guiding the cost estimates had changed since the original standards were introduced, but the cost methodology did not
reflect those changes. The changes used in these two calculations reflected the basic recommendations of the JLARC I Report to the General Assembly (JLARC, 1986).

The most complicated element of the changes suggested by JLARC I was the determination of the number of instructional positions for each school division. The previous methodology used the quantified standards from the Standards of Quality relating to the number of instructional personnel per student and divided those into the statewide pupil enrollment. This determined a statewide average of instructional personnel necessary to meet the standard. The staffing minimum was used for all divisions (JLARC, 1986). For the 1978-80 biennium, the estimated Average Daily Membership for the first year (1978-79) was 1,056,403 and the number of positions approved by the legislature for funding was 48 per 1000 students. This resulted in a statewide total number of instructional positions of 50,707. The same calculation in 1979-80 resulted in a total of 49,680 positions. The reduction resulted from a lower estimated Average Daily Membership (Duck Team, 1990).

In order to establish a per pupil dollar amount from these numbers, a salary figure for instructional personnel was determined. The previous methodology used by the State divided the total salary paid to all instructional personnel statewide by the number of instructors across the State. For the same years noted above (1978-80), the average salary computed was $11,866 in 1978-79 and $12,341 in 1979-80. These salary figures were then divided by the same Average Daily Membership totals cited above (50,707 and 49,680, respectively) to arrive at a per pupil cost for personnel. The source of the total salary and number of
positions was the Annual School Report filed by each division at the end of each fiscal year (Duck Team, 1990).

A similar procedure was used to determine support costs. The total amount spent for support services across the State was calculated, then divided by the total number of divisions to arrive at an average cost for support services per division (JLARC, 1986).

The per pupil cost for personnel and the per pupil cost for support services were then added together to get a total Basic Operation Cost. The total for 1978-79 was $901 per pupil and for 1979-80, $936 per pupil (Duck Team, 1990). In its report, JLARC indicated that the Department of Education methodology overstated the per pupil amount, but they also indicated that the State was underfunding the Standards. This occurred because the legislature did not use the per pupil amounts estimated by the State Department of Education to distribute funds to the localities. Instead, they used lower amounts, based on the amount of revenue available each year. Using the example above, the State actually funded per pupil amounts of $855 in 1978-79 and $888 in 1979-80 (Duck Team, 1990).

The JLARC staff took a different approach in analyzing the costs for the Standards of Quality. Instead of using a statewide total for the number of instructional positions, JLARC used pupil/teacher ratios established in the Standards of Quality and ratios for other instructional personnel (principals, assistant principals, librarians, and guidance counselors) as determined by the accreditation standards. These ratios were applied to the actual enrollment for the previous year (1984-85) as submitted by the school divisions for each school and grade. JLARC determined this procedure would be more sensitive to the
actual configuration of students in every school than the previous methodology which applied a statewide average to all schools. The JLARC staff reasoned that specific situations such as lowered pupil teacher ratios in some schools were caused by the enrollment patterns of divisions.

There were significant differences in the calculation used by JLARC when compared to the previous methodology of the State. The number of positions in the standards had changed. Under the previous methodology, no provision was included for instructional aides, even though the Standards required them for special education and kindergarten when classes reached a certain size. JLARC included these positions as a means of saving the addition of another teaching position. For example, the Standards of Quality called for kindergarten classes to be no larger than 25 students, but, if an aide was hired with a teacher, the maximum rose to 30 students.

Similar conditions existed with special education classes. A special education aide saved the cost of an additional teacher if the class load exceeded the maximum allowed. The maximum allowable teacher load varied according to the exceptionality of the students in the class.

The calculation made by the Department of Education included salary estimates for instructional supervisory personnel and visiting teachers. The original Standards included a requirement for these positions, but it had since been eliminated. JLARC did not include these salaries in making their estimates.

The results of the JLARC calculation for the 1985-86 school year indicated that the fifty seven positions funded by the Appropriations Act was sufficient to meet the Standards. In fact, the summary of the
JLARC calculations totaled 0.7 positions less than the number funded by the General Assembly in 1985-86 using the previous methodology.

The JLARC approach was based on the actual standards (see Appendix B) and provided for a variable per pupil amount. The variations were based on the actual student housing pattern by grade and by school in each division of the Commonwealth. The previous methodology did not have this capability (JLARC, 1986).

The most critical factor in the computation of the per pupil cost for the basic or foundation program (as defined by the Standards of Quality) was the determination of the salary for each of the positions funded. The average salary of all instructional personnel across the State had been used since the inception of the Standards of Quality in the early 1970’s. As noted earlier, the General Assembly did not use the salary as computed by the Department of Education due to lack of funds. The salary figure was adjusted to meet the revenue available for school funding.

JLARC stated that the average salary as computed in the previous method was not a true reflection of the salary expenses most school divisions paid. JLARC estimated that, because of the influence of a few high cost divisions, the average was higher than that paid in most divisions. Also included in the State estimated average salary were the actual salaries of the instructional supervisory personnel and the visiting teachers. The inclusion of these salaries increased the overall average. JLARC’s figures showed that the average salary of more than eighty-seven percent of school divisions in Virginia fell below the average salary used for determining the cost of the instructional
The methodology developed by JLARC to estimate prevailing salaries differed from previous calculations in a number of ways. The most controversial change was in the statistical measure used to determine the salary of the instructional personnel. Instead of dividing the total of all salaries of all instructional personnel by the number of instructional personnel, JLARC employed a statistical methodology known as the linear weighted estimator to predict the salary to be used for funding purposes. The linear estimator (or L-estimator) calculated the average salary of each group of instructional personnel included in the Standards of Quality (elementary teachers, secondary teachers, elementary principals, secondary and combined principals, elementary assistant principals, secondary and combined assistant principals, and instructional aides). These salaries were grouped by instructional position and the average salary of each division was plotted on a graph, showing the lowest to the highest average on an axis. The lowest and highest average salaries at the respective ends of the axis receive a weight of one. From both the high and low end of the scale, the weights were incrementally increased until the median average salary was reached on the scale. The median value received a weight of five. The weights were multiplied by the number of school divisions within that point on the distribution, and an average was determined.

JLARC defended the use of the L-estimator by reporting that, of all of the fifteen different measures of central tendency used to determine the average salary for each of the positions in the calculation, the linear weighted estimator had the lowest error across all distributions.
Using the linear weighted estimator to calculate elementary teacher salaries for 1983-84 resulted in an average of $16,740. The median average salary for the same group of teachers was $16,553. The mean of the average salaries of this group was $16,955. If the previous methodology had been used, the average salary of all elementary teaching personnel would have been $18,973 (JLARC, 1986).

State Superintendent of Public Instruction S. John Davis, in his official response to the JLARC I report, criticized this technique, noting the large difference between the average salary estimate and the JLARC estimate. He indicated that all of the other 49 states used the method of averaging teacher salaries across the State to determine an average salary for funding purposes. Further, he criticized the fact that weights assigned to the average salaries of all school divisions represented the same number, no matter how many teachers were represented in that average. The example he gave was Cape Charles, with a total of eight elementary teachers, and Alexandria, with a total of 439 elementary teachers, both of whom received a weight of one (JLARC, 1986).

The VEA consistently criticized the use of this statistic and still contends today that it depresses the funding for local divisions. Salmon, in a response to JLARC I composed for the VEA (1987), pointed out that the linear estimator is a tool to be used with samples, not when complete data are available for all teachers in the State. JLARC did not use all salaries in computing the scale, only the average salary of each group of instructional personnel (JLARC, 1986).

The JLARC staff sought a more representative statistical measure that was based on the actual staffing levels as defined in the Standards...
of Quality and the State Accreditation Standards. They proposed that whenever the Standards were changed, the methodology would allow the changes to be incorporated into the calculation of State funding. Similarly, the prevailing salary as determined using the linear estimator could be increased by the proposed salary increase from the State to produce more accurate representations of the funding levels for all divisions.

The statistical method used for calculating instructional salaries was also applied to support costs. Instead of averaging all support costs for previous years, JLARC recommended the use of the linear estimator to calculate the State share in these areas.

The JLARC I report criticized the State Department of Education for not validating the information in the Annual School Report each year. All school divisions submit the Annual School Report to the Department of Education at the end of each fiscal year. This report contains enrollment, personnel and financial information for each school division and was the key source for the data base used by the Department of Education and JLARC in conducting research. JLARC noted corrections they made to one hundred ninety-seven data items. The corrections were made by contacting ninety five school divisions when obvious errors were identified (JLARC, 1986). The State Superintendent for Public Instruction, in his response to the report (1986), assured the General Assembly and the JLARC staff that the information in the Annual School Report was validated by the State Department. He pointed out that the errors noted represented only one tenth of one percent of all the data items in the full report.
The final JLARC I report recommended an increase of $161.4 million in State funding for the 1986-88 biennium to fund the Standards of Quality. This was compared to the Department of Education's estimate of a need for $419 million for the same period. The recommendation of the Department utilized the previous methodology, not the changes suggested in JLARC I (JLARC, 1986). The General Assembly accepted the JLARC I methodology in the adoption of the State Budget in the 1986 Session of the Virginia General Assembly, but additional funds were included to assist localities in the transition to the new funding scheme (JLARC, 1988).

Salmon (1988) suggested that one reason for the quick adoption of the JLARC I recommendations was the willingness of the General Assembly to increase funding to public secondary and elementary schools that provided benefits to all divisions. The school divisions did not react negatively to the report due to the increase in funds for public education using the new methodology (Denslow, 1988).

**JLARC 2.** The second part of the study commissioned by the General Assembly in 1982 was dedicated to the issues surrounding the distribution of the State funding for the Standards of Quality. Part I of the study defined the method for determining the cost of implementing the Standards of Quality in each school division, but did not address the issues of how to divide the responsibility of paying for the Standards between the State and the locality. The most critical elements that JLARC 2 considered in conducting this part of their charge were pupil equity and tax equity.

Pupil equity is defined in the JLARC report as "...the provision of the resources necessary for a meaningful foundation education program
for the pupils in all school divisions" (JLARC, 1988, p. 3). The Standards of Quality are the basis for the meaningful foundation education program (JLARC, 1988). Finding a way to create equity in any State so that poorer districts can compete with wealthier districts is very difficult to do without penalizing the richer districts (Brown, 1991). JLARC recognized that exceeding the foundation program may be a desirable goal, but their charge was to evaluate the State's responsibility. The constitutional requirement assured citizens that every pupil received the foundation program. The staff of JLARC noted that the determination of the cost of this foundation program for each school division was the primary research activity necessary to achieve pupil equity.

The JLARC 2 report defined the second goal of their study as tax equity, or "...the apportionment of State and local responsibility for the SOQ program in a manner to ensure that the proportion of local taxable resources required to provide a meaningful foundation program does not vary greatly across localities" (JLARC, 1988, p. 3). The JLARC staff needed to determine the variance in the percentages of local tax revenues that are utilized for funding the Standards of Quality.

JLARC reviewed constitutional goals for the Standards of Quality as well as other literature on Virginia education in aligning their study with the needs of the State. They conducted regional workshops for local government and school personnel, visited school sites, and reviewed the history of the funding in Virginia. Once they determined the cost of the Standards for each school division, the next chore was to ensure that no locality paid a disproportionate amount of its local taxes for the education mandate.
The first area of the study replicated and updated the JLARC I methodology for calculating the cost of the Standards of Quality to school divisions. The methodology as previously described was not changed. The use of the linear estimator and the prevailing costs were continued as the means to determine the salaries used in program funding, as was the calculations of instructional staffing. Average Daily Membership and salary information from 1985-86 were used in making the estimates. JLARC I had used 1983-84 data. Some different calculations were used in determining the support costs, particularly the funding for the nurses and the superintendent, but no major changes were made in the JLARC I findings.

The JLARC staff continued the revisions begun with part one of the report and added to the redefinition of State funding. To do this, they looked at ways to improve the cost calculations to reflect improved pupil equity for the students in Virginia. One of the key issues for the second part of the JLARC study was the single per-pupil cost amount that drives most of the funding for the Standards of Quality. Using a single per pupil cost is legitimate only when the cost variations between divisions are dependent entirely on the number of pupils served. When other factors impact cost, such as the density or the sparsity of the population or the other unique factors in the local ability to pay, the single pupil amount does not promote pupil equity as was the goal of the effort (JLARC, 1986).

The reason for the cost variations between divisions became very important to the JLARC staff. The example provided by JLARC in the report concerned a decision by a locality to keep a neighborhood school open when consolidation of that school with another would have been a
more cost effective approach. Designing a funding distribution system to reward localities for such decisions did not fit with the goals of pupil or tax equity. JLARC was interested in promoting efficiency in school organization. Rewarding a more costly organizational pattern with more funding was not efficient. By keeping the neighborhood school open, the division increased the cost of operating their schools, and, according to the staffing formula utilized by JLARC, more funds were paid to the division by the State. The decision to keep the school open was a local decision.

If the cost increases were not under the control of a locality, the JLARC staff wanted to be able to give consideration to funding those individual situations. The example provided in the report was the increased transportation costs resulting from a school bus having to travel many miles in a sparsely populated division to pick up students. The per pupil cost in this instance would be higher, but the division had no control over this situation.

The JLARC 2 study looked at three areas for adjustment in the calculation of the cost of implementing the Standards of Quality for individual divisions. These were SOQ staffing requirements (instructor to pupil ratios), the cost of competing in regional labor markets (salary issues), and the variation in pupil transportation cost. The JLARC staff analyzed these three areas to give consideration to the refinement of the per pupil cost element.

In the area of instructional staffing requirements, JLARC 2 did not change the methodology developed in the first part of the report, but they did look at factors that would impact local divisions differently. With the major part of all school budgets devoted to personnel costs,
instructional staffing issues had the most impact on every division. The second JLARC study gave consideration to the variations in staffing in all divisions based on the housing of students. Given the fact that the State data base contained information regarding student enrollment by school and by grade, those data were used to arrive at staffing requirements. Enrollment data were matched by school and by grade to the staffing requirements set forth in the Standards of Quality and the Standards of Accreditation. If the standards overlapped, JLARC used the higher requirement since they were seeking the minimum number of positions needed to be funded.

A comparison of the JLARC methodology to the previous methodology used by the State to calculate positions and their cost showed that JLARC did not count the instructional supervisory category, but did count paraprofessionals. JLARC computed the total by separating each of the positions as noted by the Standards and applying the salary to the position to estimate the cost. The question JLARC 2 addressed was whether or not to fund positions over the number required in the Appropriations Act. Previously, the State Department computed the required number of positions per 1000 students as an average across the State, submitted that as part of their budget request, and the General Assembly approved a number that was lower than the estimate of the State Department. At the time of JLARC 2, that number was set at fifty-seven positions per one thousand students for the basic program, the special education program, and the vocational program. The fifty-seven positions included fifty-one for basic and six for special education and vocational (JLARC, 1988).
In each of the options of its report (see Appendix C), JLARC 2 recommended that the fifty-seven positions per one thousand students be kept as a floor for all divisions to receive, but that calculations would be done for each division by each grade in each school to determine the need for positions above the floor amount. The JLARC staff recognized that some of the conditions that caused the variation in student enrollment patterns may not be the most efficient way to organize schools, but it was not within the scope of the study to make that determination.

In addition, JLARC 2 included three new proposals for the Standards of Quality made by the State Board of Education (that were eventually approved with the 1988-90 budget). These proposals were: (1) elementary guidance counselors (none had been required previously); (2) a reduction in the division-wide ratio of students in grade one to twenty four (the current standard was a maximum of thirty, with the overall pupil teacher ratio for grades kindergarten through six to be no more than twenty-five to one); and, (3) a reduction in the number of pupils per English class in grades six through twelve to a maximum of 24 (the current standard was for overall pupil teacher ratios in all middle and secondary schools to be no more than twenty-five to one).

A significant variation existed in the salary options offered teachers in different divisions across the State. The State Department of Education method recognized the same salary for every division, no matter what the actual pay scale for the teachers may have been. This promoted equity for those divisions that had limited revenue at the local level, but some divisions competed in job markets that offered higher wages than competition from other school divisions would require.
JLARC examined the wages in each of the twenty-two planning district commissions in the State of Virginia. The average weekly wages were taken from the data kept by the Virginia Employment Commission. They found that the Northern Virginia planning district had significantly higher average weekly wages than any other planning district. This area, including Arlington, Fairfax, Loudoun, Prince William, Alexandria, Fairfax City, Falls Church, Manassas, and Manassas Park, averaged over seventeen percent higher than the next closest planning district, Richmond. Richmond's mean wages were just over three and one half percent higher than the next closest planning district. The gap between Northern Virginia and the rest of the State was clear.

This finding was consistent with the findings of the Department of Personnel and Training of the State. A wage differential was in place for the employees of the State that worked in that area. This was used as a basis for making a recommendation for an adjustment of 12.53 percent to the prevailing salaries used in the calculation of the cost of instructional positions and support costs.

The third area of adjustment to the SOQ costs proposed by JLARC 2 was pupil transportation. The methodology used by the State Department at the time of the JLARC study resulted in a single per pupil cost for all school divisions. Categorical aid was determined from information received by the State Department from the divisions in a pupil transportation report. The categorical aid was subtracted from the State calculation of total transportation costs. The remainder was divided into State and local shares in Basic Aid.

JLARC sought to refine this procedure to recognize the various factors beyond local control that affected the cost of transporting
students. The area served by the local school transportation system (in square miles) and the size of the transportation operation (using the average daily attendance of the students transported) were determined to be the most critical factors by JLARC. The revised methodology grouped all school divisions into one of two categories by areas: school systems serving less than eighty square miles and school systems serving more than eighty square miles. The localities were defined more specifically by dividing the divisions into three groupings according to the number of pupils transported. The divisions transporting the fewest number of students made up the lower third. The divisions transporting the most students composed the upper third and all the rest fell into the middle third (JLARC, 1988).

The costs of transportation for regular pupils (defined by JLARC as "those riding regular DOE-approved school buses" (JLARC, 1988, p.36)) and exclusive schedule pupils (defined by JLARC as "handicapped pupils requiring a separate form of transportation service on exclusive schedule buses" (JLARC, 1988, p.36)) were computed separately. The computation resulted in six different prevailing costs for regular pupils and six different prevailing costs for exclusive schedule pupils. Large school divisions (80 square miles and larger) were divided into three groups as defined by the number of students served (low, medium and high). Small school divisions (less than 80 square miles) were divided the same way. JLARC used the linear weighted average to compute the prevailing costs for each of the six groups for regular pupils and each of the six groups for exclusive pupils.

One other group of students had to be considered in the calculation of per pupil cost. These were special arrangement pupils, defined by
JLARC as "those handicapped pupils requiring transportation services other than those provided by exclusive schedule buses" (JLARC, 1988, p. 36). Because this service was not determined to be influenced by any factor outside local control, one per pupil cost was computed by JLARC, using the linear weighted average methodology.

Once the per pupil costs for each of the three groups were determined, the total operating cost recognized by the State was calculated for each division by multiplying the Average Daily Attendance for each group by the per pupil cost. The products for each group (regular pupils, exclusive schedule pupils, and special arrangement pupils) were added to determine a total for each division.

Two other areas were used in the calculation of pupil transportation costs by JLARC. The State Board of Education recommended a twelve year replacement cycle for school buses in the Commonwealth. JLARC used figures for bus capacity, cost of a bus, and the Average Daily Attendance for all divisions to calculate a cost per division. The cost for regular students and exclusive schedule pupils were computed separately for each locality cluster.

The final calculation in pupil transportation concerned students riding public transit buses. The regular pupil prevailing cost was multiplied by the number of pupils using this service to determine the cost estimate.

The total cost of the pupil transportation program as recognized by the State included the cost of transporting regular students, exclusive schedule students, special arrangement students, bus replacements, and public transit students. JLARC stated that the use of the new methodology would be more appropriate for pupil equity concerns because...
this procedure recognized cost factors that could not be controlled by a local division (JLARC, 1988).

The total cost of the Standards of Quality as adjusted by JLARC 2 increased by over one hundred and fifty six million dollars when compared to the cost without changes in instructional staffing, cost of competing in Northern Virginia, and pupil transportation. Table 1 shows a comparison of the total cost for the 1988-90 biennium using the JLARC I methodology and using the JLARC 2 methodology. Most of the increased cost was attributed to the funding for instructional staffing over the floor amount and the cost of competing adjustment for Northern Virginia salaries. The totals for salary and fringe benefits in basic instruction and special education amounted to most of the additional funding (JLARC, 1988).
### Table 1

Comparison of The Cost of the Standards of Quality - 1988-90

<table>
<thead>
<tr>
<th>Instructional Personnel</th>
<th>Biennium Total Before JLARC 2</th>
<th>Biennium Total After JLARC 2</th>
<th>Difference (Before to After)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Instruction</td>
<td>$2,724,626,430.67</td>
<td>$2,802,461,961.57</td>
<td>$77,835,530.90</td>
</tr>
<tr>
<td>Basic Aides</td>
<td>$6,053,579.67</td>
<td>$6,158,566.37</td>
<td>$104,986.70</td>
</tr>
<tr>
<td>Special Education</td>
<td>$178,064,270.09</td>
<td>$244,839,082.99</td>
<td>$66,774,812.90</td>
</tr>
<tr>
<td>Special Education Aides</td>
<td>$15,896,404.03</td>
<td>$22,129,073.72</td>
<td>$6,232,669.69</td>
</tr>
<tr>
<td>Voc. Education</td>
<td>$142,294,711.49</td>
<td>$108,473,065.66</td>
<td>($33,821,645.83)</td>
</tr>
<tr>
<td>Gifted:Talented</td>
<td>$52,834,885.58</td>
<td>$54,275,489.02</td>
<td>$1,440,603.44</td>
</tr>
<tr>
<td>Remedial Funds</td>
<td>$60,099,718.52</td>
<td>$63,255,433.69</td>
<td>$3,155,715.17</td>
</tr>
<tr>
<td>Fringe Benefits</td>
<td>$722,504,402.86</td>
<td>$746,468,681.33</td>
<td>$23,964,278.47</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$3,902,374,402.90</strong></td>
<td><strong>$4,048,061,354.36</strong></td>
<td><strong>$145,686,951.46</strong></td>
</tr>
</tbody>
</table>

### SOQ Support

<table>
<thead>
<tr>
<th>Support</th>
<th>Biennium Total Before JLARC 2</th>
<th>Biennium Total After JLARC 2</th>
<th>Difference (Before to After)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Operating Support</td>
<td>$1,917,896,755.93</td>
<td>$1,924,774,863.11</td>
<td>$6,878,107.18</td>
</tr>
<tr>
<td>Fringe Benefits</td>
<td>$177,134,437.75</td>
<td>$180,729,198.83</td>
<td>$3,594,761.08</td>
</tr>
<tr>
<td>Special Ed Support</td>
<td>$59,823,480.87</td>
<td>$59,823,480.87</td>
<td>$0.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$2,154,854,674.54</strong></td>
<td><strong>$2,165,327,542.81</strong></td>
<td><strong>$10,472,868.26</strong></td>
</tr>
</tbody>
</table>

**Total All Costs** | **$6,057,229,077.44** | **$6,213,380,897.17** | **$156,159,819.73**

**Note.** From Funding the Standards of Quality Part 2: SOQ Costs and Distribution, JLARC, 1988, pages 24 and 38.
JLARC 2 used pupil equity as a major goal for its report. Adjusting the per pupil costs by locality was a major change to the distribution of funds to localities because it recognized local variations and needs.

Tax equity was a closely related second goal of the JLARC 2 report. The analyses in the JLARC study provided data to assess each locality’s ability to generate local revenue to pay for the public education program. Since Virginia’s school divisions are not permitted to tax to raise revenue, they depend on their funding from local governments to provide the resources. Local governments obtain their funding from various tax sources. These tax resources fall into three general categories: (1) general property taxes, consisting of real property merchants capital, machinery and tools, and tangible personal property; (2) nonproperty taxes such as sales and consumer utility taxes, franchise licenses, business/professional/occupational licenses, fees for recordation and wills, fees from admissions and amusements, restaurant taxes, cigarette taxes, and others; and, (3) nontax sources such as fines and forfeitures, permits/privilege fees/regulatory licenses, charges for services, and revenue from the use of money and property. Real estate taxes and real property taxes from public service corporations are the most dominant sources of tax money for the localities.

In recent years JLARC noted that the nonproperty tax sources expanded as many areas became more urbanized. The Governor’s Task Force that studied financing the Standards of Quality in 1972-73 used this information in creating the composite index. The composite index is the formula used in the school funding calculation to determine the proportion of SOQ costs to be paid by the locality. The formula compares...
the local tax base, population and average daily membership in the school division to the statewide numbers in the same areas. The composite index is composed of three tax sources, each counting a different percentage of the total: (1) True value of real property counts fifty percent; (2) the level of personal income is forty percent; and (3) the taxable retail sales count ten percent. Figure 1 illustrates the composite index prior to the changes brought about in JLARC 2. Also shown in this figure, reprinted from the JLARC 2 Report (p. 43), is the Basic Aid Formula.
Composite Index and Basic School Aid Formula

Composite Index

- ADM Component =

\[
\begin{align*}
\text{Local True Values} & \quad \text{Local Personal Income} & \quad \text{Local Taxable Retail Sales} \\
\text{Local ADM} & \quad \text{Local ADM} & \quad \text{Local ADM} \\
0.5 & + 0.4 & + 0.1 \\
\text{State True Values} & \quad \text{State Personal Income} & \quad \text{State Taxable Retail Sales} \\
\text{State ADM} & \quad \text{State ADM} & \quad \text{State ADM}
\end{align*}
\]

- Population Component =

\[
\begin{align*}
\text{Local True Values} & \quad \text{Local Personal Income} & \quad \text{Local Taxable Retail Sales} \\
\text{Local Population} & \quad \text{Local Population} & \quad \text{Local Population} \\
0.5 & + 0.4 & + 0.1 \\
\text{State True Values} & \quad \text{State Personal Income} & \quad \text{State Taxable Retail Sales} \\
\text{State Population} & \quad \text{State Population} & \quad \text{State Population}
\end{align*}
\]

- Local Composite Index =

\[
0.6667 \times \text{ADM Component} + 0.3333 \times \text{Population Component}
\]

Basic Aid Formula

- Local Share (Required Local Expenditure) =

\[
((\text{Basic Operating Cost Per Pupil} \times \text{Local ADM}) - \text{State Sales Tax}) \times \text{Local Composite Index}
\]

- State Share =

\[
(\text{Basic Operating Cost Per Pupil} \times \text{Local ADM}) - \text{State Sales Tax} - \text{Local Share}
\]

Figure 1. Local Composite Index Formula Prior to JLARC and Basic Aid Formula. Note: These calculations represent the format used prior to the adoption of the JLARC 2 recommendations. From: JLARC, 1988, p. 43.
JLARC reviewed the basis for the composite index and found that as the tax from real property became a smaller portion of the total local revenue, the composite index provided a less accurate measure of the locality's ability to pay. The weights applied in the formula resulted from statewide averages in the early 1970's. JLARC noted that, in fiscal year 1986, real property provided only forty-five percent of the total revenue at the local level in fiscal year 1986. Revenue from other local sources increased in the same period to forty-six percent.

An alternative to the composite index was the revenue capacity. This calculation estimated revenue for a locality if the statewide average tax rates were used for each of the major tax instruments. It allowed more variation based on the size of the tax base in the locality.

A second alternative to the composite index reviewed by JLARC was a methodology labeled equalized effort. JLARC defined this as an approach that required each locality to "contribute the same proportion of revenues from its tax base to pay for a given program" (JLARC, 1988). Equalized effort utilized the revenue capacity in computing the percentage of SOQ costs to be paid by the locality. This methodology would provide more funding to the poorer districts because their revenue capacity would be lower. In the same respect, using the equalized effort approach, wealthy school districts could receive no State aid if they are able to fund the foundation program without it.

The equalized effort and the revenue capacity changes proposed as options by JLARC were recognized by Salmon (1988) as possible improvements in measuring fiscal capacity for localities. He did note, however, that if the State's ability to raise revenue were to be
impaired due to economic hardship in the future, the equalized effort method would shift more of the requirement to the localities.

JLARC did not recommend one of these calculations as the best measure of local ability to pay. They included all three measures in various options offered in the final JLARC 2 Report to the General Assembly (JLARC, 1988).

The composite index formula was based on personal income measures and the revenue capacity formula on adjusted gross income. Both possessed strengths and weaknesses in calculating each division’s ability to pay for each division. More critical to choosing one or the other was the availability of the data. Personal income data had been gathered from the Bureau of Economic Analysis. This office experienced problems with personal income data due to reporting concerns involving zip codes, place of residence and census information. The result was that personal income data probably would not be available for the 1988-90 budget estimates and possibly never again in the future.

The issue of which measure provided the best estimate of the income of taxpayers in a locality became secondary to the accuracy and availability of the data. The adjusted gross income excluded some of the income included in the personal income data. Adjusted gross income also included the income from persons living outside Virginia but employed in Virginia. This had the effect of overestimating income for a locality. Despite these limitations and primarily due to availability issues expressed by the Bureau of Economic Analysis, JLARC used adjusted gross income in each of the options containing the revenue capacity and the composite index (JLARC, 1988).
The JLARC 2 report reviewed the issue of equalization of funding and its relationship to pupil equity and tax equity. Equalization is the process by which the State assists poorer divisions by using their ability to pay (as determined by the composite index in the Virginia methodology) as a means of determining the percentage of funding from the State. The ability to pay measure was multiplied by the local share to determine the amount of funding to be provided by the municipality. The remainder of the funds were supplied by the State. Since the implementation of the composite index in the early 1970’s, State Basic Aid was equalized using the Basic Aid formula. A few years prior to the JLARC 2 report, Gifted and Talented funds and Transitional payments were added to the equalized funding method.

JLARC studies of current State aid data and the rules for distribution revealed that State aid was too small in localities with low ability to pay and too large in localities with high ability to pay. JLARC analyzed the ten localities with the highest ability as determined by the composite index for the 1985-86 school year and compared those to the ten localities with the lowest ability to pay. The analysis showed that, even with the Basic Aid adjusted by the composite index, the localities with the high ability were receiving approximately two thirds as much State funding under Basic Aid and other categorical State funds as those with the low ability to pay. In those cases, the high localities were all receiving a higher per pupil amount in other categorical accounts than the localities with lower ability. JLARC also measured revenue capacity for these districts at the extremes of the ability to pay measure. High divisions had a revenue capacity per pupil that was seven times as great as the low divisions (JLARC, 1988).
JLARC found that over fifty-six percent of all funding was equalized in fiscal year 1975, but that number dropped to a low of forty-seven and three tenths percent in fiscal year 1981. Funds that were equalized were altered by the ability to pay formula (composite index) in the Basic Aid Formula.

In order to determine Basic Aid, the total SOQ per pupil costs were multiplied by the Average Daily Membership. The result of that calculation was reduced by the amount of the State Sales Tax. The remainder was then multiplied by the local composite index to determine the local share of the SOQ program (see Figure 1).

JLARC looked specifically at equalizing a number of accounts that were being funded categorically at a fifty/fifty rate. When funding was provided in categorical accounts, the State picked up fifty percent of the cost of the program and the locality picked up fifty percent of the cost for each division, no matter what the ability to pay may have been. Included in the list that was reviewed were the special education program, the vocational program, the remedial program, and funding for pupil transportation.

JLARC proposed to keep the programs separate as the funding was equalized. In meetings held throughout the State during consideration of the JLARC proposals, concern surfaced among groups regarding the process of equalization. Placing the specific programs into the broad category of Basic Aid was not acceptable. Interest groups were concerned that State money designated for their program (primarily the special education proponents) would be spent on other programs. Without clearly identified State revenue line items, the amount of special education funds provided to a division would be an unknown. JLARC pointed out that...
the equalization of the Gifted and Talented funding a few years earlier was implemented without losing the identity of the program. It was their intent to follow the same procedure.

Funding for fringe benefits was under consideration for equalizing as well. The State was paying one hundred percent of the funding for the fringe benefits associated with all required positions as determined by the Standards of Quality and State Accreditation regulations (JLARC, 1988). The reason for the full funding of fringe benefits and only partial funding for salaries of required positions was not clear. A State Department of Education staff member suggested that, while no specific written documentation could be found, General Assembly persons indicated that it was a trade-off for not providing funds for capital costs for local divisions. The decision to fund one hundred percent of the fringe benefit costs occurred when the formula first was put in place, just after the adoption of the revised Constitution of Virginia in 1971 (personal communication, February 9, 1995). In the introduction to the JLARC I and JLARC 2 Reports (1986 and 1988, respectively), reference is made to the fact that capital outlay and debt service costs were not included in the funding framework for the Standards of Quality. Because of this, neither expense was included in the review of the SOQ costs by JLARC.

Fringe benefit categories to be equalized were the employer's share of Social Security, the contribution to the Virginia Retirement System for each covered employee, and life insurance for each employee enrolled in Virginia Retirement System. A minimum cost to cover a basic health insurance plan was included in the Basic Aid funding for required instructional personnel. The minimum cost was computed based on the
prevailing amount paid by school divisions in the base year, not on the full premium for health insurance.

By equalizing the funding for fringe benefits, JLARC estimated that the total State percentage for SOQ funding would probably drop. To offset this reduced percentage, JLARC proposed that the State's share of all equalized accounts be increased incrementally. The State had paid fifty percent of the total cost in all previous years. Under the JLARC proposal, that percentage would increase by one percent each year until it equaled fifty-five percent. JLARC estimated that the higher payments in the equalized accounts would offset the loss of State revenue to localities in the fringe benefit accounts. State Department of Education officials and VEA researchers contended that the loss of fringe benefit funding at one hundred percent was a more significant financial loss (personal communication, February 9, 1995). Table 2 illustrates the change in the State funding percentage for equalized accounts as proposed by JLARC.
Table 2

Change in Percentage of Local Share of SOQ Costs

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage of Local Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>1986-87</td>
<td>50</td>
</tr>
<tr>
<td>1987-88</td>
<td>50</td>
</tr>
<tr>
<td>1988-89</td>
<td>49</td>
</tr>
<tr>
<td>1989-90</td>
<td>48</td>
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<td>1991-92</td>
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<td>1992-93</td>
<td>45</td>
</tr>
<tr>
<td>1993-94</td>
<td>45</td>
</tr>
</tbody>
</table>


JLARC promoted the equalization of more program costs as an improvement to the pupil equity issue. Categorical funding for special education, vocational education, and fringe benefits gave more affluent divisions funding based on the actual program cost, not their ability to
pay. The reduction of the categorical lines improved the opportunity for students in less affluent divisions to receive a quality education without increasing total funding for education statewide.

Fringe benefit equalization was a large cost item and the change from one hundred percent funding proposed by JLARC promoted tax equity as well. By equalizing this funding category, more per pupil dollars were provided to divisions with a low composite index for fringe benefits than were provided to more affluent divisions with a higher composite index, even though the State expenditure was reduced in total. The equalization of fringe benefits and the increased percentage of State funding for all equalized accounts that was generated by the fringe benefit change had the effect of improving pupil equity and tax equity (JLARC, 1988).

Equalization of more funds benefited localities with low composite indices, but it also increased the required local match that must be verified each year. The local match is determined by adding the amount of local contribution required with each equalized account. Basic Aid had been the only equalized account in the original calculation created in the 1970's, so the local contribution resulting from the Basic Aid formula was the only amount required to be funded by the locality. Gifted and Talented funds and transitional payments were equalized a few years before the JLARC 2 Report, so the local required effort was increased. The JLARC 2 Report added special education, vocational, remedial, pupil transportation, and fringe benefit local shares to that required effort, thus elevating the local amount even more. In most cases, however, localities were already exceeding their local
contributions by providing more local funding than the amount required in the equalization formulae.

These were the highlights of the complicated and very technical report issued in 1988 by JLARC regarding the analysis of the cost of the Standards of Quality and the distribution of State funding for the SOQ. The second report JLARC provided for review by the General Assembly, the school divisions and other interested publics contained seven options for illustration purposes. Each was designed to show the effect of the changes on all divisions (see Appendix C). Each of the seven options contained some of the same cost estimates, while some suggested changes are used in one or two, but not all. Included in all seven options provided by JLARC 2 were these directions for the state calculation:

"(1) recognize 57 instructional positions per 1,000 as a floor, and more positions if required by SOQ, (2) use a 5.8 percent instructional salary increase in both FY 1989 and FY 1990, (3) recognize a cost of competing adjustment, (4) use the new pupil transportation cost method, and (5) include the costs of the proposed Board of Education standards" (JLARC, 1988, p. 58). Salmon (1988) pointed out that all seven options included the cap of eighty percent as a maximum local share, meaning that JLARC did not eliminate the cap on the locality's contribution. Salmon also observed that all seven options included no change in the distribution of sales tax dollars. The current method used the number of school aged children in a division, based on the triennial school census to divide the funds. The calculation of the prevailing salaries for funded positions using the linear weighted average was used in each one of the options. The VEA was critical of JLARC for inclusion of the three items noted above (Salmon, 1988).
One particularly confusing issue in the JLARC 2 Report was the method used to portray the funding increases in printed documents. The increases for each division were shown by biennium, rather than by each year. When local school division officials looked at the comparison of the 1986-88 biennium with the 1988-90 biennium, the dollar amounts were much larger than the actual result would be. A Superintendent from the Tidewater area quipped that the money truck seemed to lose some of its cargo after it left Richmond, referring to the first reaction to the JLARC increases versus the actual numbers that came to the localities after passage of the Budget by the General Assembly (Denslow, 1988).

The 1988-90 State Budget proposed by Governor Baliles (and eventually adopted by the General Assembly) differed from any one of the JLARC 2 proposals, but combined ideas from many of them. The Governor proposed a seven and three tenths percent increase in the prevailing salary amount for teacher salaries over the biennium. JLARC proposed a five and eight tenths percent increase. He also proposed that the State assume its share of providing duty free lunch to teachers in grades kindergarten through eight and the cost of remedial summer school. Items that were included that JLARC proposed in one or more of the options were reported by Suzette Denslow in the May, 1988 issue of Virginia Town and City are as follows: (1) full funding of the State’s share of the SOQ as proposed by JLARC; (2) changing regulations in the Standards of Quality, including the twenty-four to one pupil/teacher ratio in first grade, the twenty-four to one pupil teacher system-wide ratio for secondary English classes, one guidance counselor per five hundred elementary students, and a 12 year replacement cycle for school buses; (3) keeping the composite index, but using adjusted gross income instead
of personal income in the computation; (4) increasing the State share of equalized funding from fifty percent to fifty one percent in 1988-89 and fifty two percent in 1989-90; (5) adding vocational education, special education, remedial education, pupil transportation, and fringe benefits to the list of equalized accounts; (6) including a regional cost differential for Northern Virginia prevailing instructional salaries; (7) revising the pupil transportation methodology consistent with the JLARC recommendation; and, (8) including a no loss provision to protect localities from receiving less funds in 1988-89 than they did in 1987-88. Denslow emphasized that the information provided by JLARC and the subsequent budget contained so many changes that it was difficult to assess the effect on the local division.

Review of Data for The Cities and School Divisions of Chesapeake, Norfolk, Portsmouth, and Virginia Beach

Introduction. This part of Chapter 4 reviews the statistical and demographic data examined for the four cities and the school systems used for case analyses in the study. Basic information on the cities was collected to describe the financial conditions and the population trends for each municipality. School division data regarding enrollment, funding, and program costs were assimilated. The data were placed in table format to clarify and compare key periods of time and to align the findings with the research questions.

Statistical Information on the Cities of Chesapeake, Norfolk, Portsmouth, and Virginia Beach. The four cities involved in the study were all located in the South Hampton Roads Area of the State of Virginia, which is located in the southeastern corner of the State. Chesapeake, Norfolk, Portsmouth, and Virginia Beach make up the entire
land area of the southeastern corner of the State of Virginia. The four cities were part of the Hampton Roads Planning District Commission, one of twenty-three planning districts in the State of Virginia.

The Hampton Roads Planning District experienced growth in the last two decades. Table 3 indicates the growth of the total planning district and the population growth of the four cities in the study.

Table 3

<table>
<thead>
<tr>
<th>City</th>
<th>1970</th>
<th>1980</th>
<th>1990</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chesapeake</td>
<td>89,500</td>
<td>114,486</td>
<td>151,982</td>
</tr>
<tr>
<td>Norfolk</td>
<td>307,951</td>
<td>266,979</td>
<td>261,250</td>
</tr>
<tr>
<td>Portsmouth</td>
<td>110,965</td>
<td>104,577</td>
<td>103,910</td>
</tr>
<tr>
<td>Virginia Beach</td>
<td>172,106</td>
<td>262,199</td>
<td>393,089</td>
</tr>
<tr>
<td>Total HRPD</td>
<td>1,102,511</td>
<td>1,207,953</td>
<td>1,448,038</td>
</tr>
</tbody>
</table>

Note: From Hampton Roads Data Book, July, 1994, pp. 6-8.

Chesapeake and Virginia Beach have experienced significant growth in the past 20 years, while Norfolk and Portsmouth have lost population. The four cities meet the criteria of urbanized areas. The U.S. Census Bureau identified an urbanized area as:

"...one or more places ("central place") and the adjacent densely settled surrounding territory ("urban fringe") that together have a minimum of 50,000 persons. The urban fringe generally consists of contiguous territory having a density of at least 1,000 persons per square mile. The urban fringe also includes outlying territory of such density if it is connected to the core of the contiguous area..."
by road and is within 1 1/2 road miles of that core, or within 5 road miles of the core but separated by water or other undevelopable territory". (U.S. Census Bureau, 1990, p. 21)

Table 4 displays the 1990 total population of each of the four cities in this study and the number of the total population counted as urbanized. As is shown in the third column, each of the cities has well over ninety-six percent of their population classified as urbanized according to the guidelines issued by the U.S. Census Bureau.
Table 4

Urbanized Population

<table>
<thead>
<tr>
<th>City</th>
<th>1990 Total Population</th>
<th>1990 Urbanized Area Population</th>
<th>Percent of Total as Urbanized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chesapeake</td>
<td>151,976</td>
<td>146,415</td>
<td>96.34%</td>
</tr>
<tr>
<td>Norfolk</td>
<td>261,229</td>
<td>261,229</td>
<td>100.00%</td>
</tr>
<tr>
<td>Portsmouth</td>
<td>103,907</td>
<td>103,907</td>
<td>100.00%</td>
</tr>
<tr>
<td>Virginia Beach</td>
<td>393,069</td>
<td>389,536</td>
<td>99.10%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>910,181</strong></td>
<td><strong>901,087</strong></td>
<td><strong>99.00%</strong></td>
</tr>
</tbody>
</table>

Note: Information assimilated from "Census '90 Status", Hampton Roads Planning District Commission, April, May, June, 1992, p. 2.

Some key data provided through the Hampton Roads Planning District Commission illustrated the fiscal description of the cities reviewed in this study. Shown in Tables 5, 6, and 7 for each of the four cities in the study are the real estate values, the percent of the regional retail sales, and the new vehicle registrations. These data display critical information related to characteristics of localities that impact the funding of school programs because of their importance to the taxes collected in each city.
### Table 5

**Real Estate Values**

<table>
<thead>
<tr>
<th>City</th>
<th>1980</th>
<th>1985</th>
<th>1990</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chesapeake</td>
<td>$2,135.4</td>
<td>$3,088.0</td>
<td>$6,089.3</td>
</tr>
<tr>
<td>Norfolk</td>
<td>$2,762.1</td>
<td>$4,287.4</td>
<td>$6,342.4</td>
</tr>
<tr>
<td>Portsmouth</td>
<td>$1,304.1</td>
<td>$1,739.7</td>
<td>$2,560.6</td>
</tr>
<tr>
<td>Virginia Beach</td>
<td>$5,218.7</td>
<td>$10,431.4</td>
<td>$16,214.7</td>
</tr>
</tbody>
</table>

*Note: The figures are in millions of dollars and include the total of the fair market value of the land and the fair market value of the buildings. From Hampton Roads Data Book, July, 1994, pp. 153-159.*

### Table 6

**Percent of Retail Sales in the Region (Percent of Regional Total)**

<table>
<thead>
<tr>
<th>City</th>
<th>1975</th>
<th>1980</th>
<th>1990</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chesapeake</td>
<td>5.7</td>
<td>6.6</td>
<td>10.4</td>
</tr>
<tr>
<td>Norfolk</td>
<td>29.9</td>
<td>27.3</td>
<td>20.7</td>
</tr>
<tr>
<td>Portsmouth</td>
<td>8.7</td>
<td>7.8</td>
<td>5.1</td>
</tr>
<tr>
<td>Virginia Beach</td>
<td>17.9</td>
<td>20.7</td>
<td>26.7</td>
</tr>
</tbody>
</table>

*Note: The region includes all of the planning district. The cities in the Hampton Roads Planning District include the four shown above as well as Suffolk, Franklin, Hampton, Newport News, Poquoson, and Williamsburg. The counties included in the Hampton Roads Planning District are Isle of Wight, Southampton, James City, York, and Gloucester. From Hampton Roads Data Book, July, 1994, pp. 116-118.*
Table 7

New Vehicle Registrations

<table>
<thead>
<tr>
<th>City</th>
<th>1970</th>
<th>1980</th>
<th>1990</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chesapeake</td>
<td>31,108</td>
<td>62,967</td>
<td>101,571</td>
</tr>
<tr>
<td>Norfolk</td>
<td>86,358</td>
<td>114,263</td>
<td>129,858</td>
</tr>
<tr>
<td>Portsmouth</td>
<td>35,828</td>
<td>50,267</td>
<td>59,563</td>
</tr>
<tr>
<td>Virginia Beach</td>
<td>59,902</td>
<td>143,268</td>
<td>247,060</td>
</tr>
</tbody>
</table>

Note: The figures in this table include only passenger vehicles, pickup trucks, and panel trucks. From Hampton Roads Data Book, July, 1994, pp. 178-179.

In each table, even though the years are a little different, it is obvious that Chesapeake and Virginia Beach have been growing and Norfolk and Portsmouth have been declining in those areas contributing to fiscal capacity. In the categories where all four cities have gained, such as the case with the value of real estate, the percentage of gain in Chesapeake and Virginia Beach far outdistanced that of Norfolk and Portsmouth. Norfolk dropped from the leadership role in percent of retail sales and passenger vehicle registrations during the time periods as indicated by the data. Portsmouth’s retail sales fell from third to a very distant fourth in fifteen years.

Each one of these factors played an important role in economic growth for the cities, and, consequently, affected the ability of the locality to fund the educational program. Norfolk and Portsmouth reflected a decline. Virginia Beach grew into the leadership role and seemed to show slower growth than Chesapeake in the 1980 to 1990 period.
One of JLARC's goals was to improve tax equity among the school divisions. In these four cities, the total taxes collected by category and the tax rates before and after JLARC's implementation are shown in Tables 8, 9, 10 and 11.

Table 8

Real Property Tax Collection

<table>
<thead>
<tr>
<th>City</th>
<th>Fiscal Year 1986</th>
<th>Fiscal Year 1988</th>
<th>Fiscal Year 1990</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chesapeake</td>
<td>$31,135.2</td>
<td>$41,462.1</td>
<td>$66,073.5</td>
</tr>
<tr>
<td>Norfolk</td>
<td>$53,681.9</td>
<td>$63,583.0</td>
<td>$79,241.4</td>
</tr>
<tr>
<td>Portsmouth</td>
<td>$22,581.2</td>
<td>$25,411.6</td>
<td>$31,906.2</td>
</tr>
<tr>
<td>Virginia Beach</td>
<td>$83,101.0</td>
<td>$114,719.3</td>
<td>$147,124.7</td>
</tr>
</tbody>
</table>

Note: The figures are in millions of dollars and reflect taxes collected. Tax rates in the cities may not be the same. The fiscal year compares to the school year. For example, fiscal year 1986 would be the same as school year 1985-86. From Hampton Roads Data Book, July, 1994, pp. 185-190.
Table 9

Real Estate Tax Rates

<table>
<thead>
<tr>
<th>City</th>
<th>Fiscal Year 1986</th>
<th>Fiscal Year 1988</th>
<th>Fiscal Year 1990</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chesapeake</td>
<td>$1,020</td>
<td>$1,020</td>
<td>$1,230</td>
</tr>
<tr>
<td>Norfolk</td>
<td>$1,250</td>
<td>$1,250</td>
<td>$1,350</td>
</tr>
<tr>
<td>Portsmouth</td>
<td>$1,300</td>
<td>$1,220</td>
<td>$1,320</td>
</tr>
<tr>
<td>Virginia Beach</td>
<td>$0.800</td>
<td>$0.877</td>
<td>$0.977</td>
</tr>
</tbody>
</table>

Note: Real estate assessed at one hundred percent of fair market value. The real estate rate shown is per one hundred dollars of assessed value. The fiscal year compares to the school year. For example, fiscal year 1986 would be the same as school year 1985-86. From Comprehensive annual financial report, City of Chesapeake, 1995, p. C-9, Comprehensive annual financial report, City of Norfolk, 1995, p. 180, Comprehensive annual financial report, City of Portsmouth, 1995, p. 172, and Comprehensive annual financial report, City of Virginia Beach, 1995, p. 165.
Table 10  

**Personal Property Tax Collections**

<table>
<thead>
<tr>
<th>City</th>
<th>Fiscal Year 1986</th>
<th>Fiscal Year 1988</th>
<th>Fiscal Year 1990</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chesapeake</td>
<td>$12,444.9</td>
<td>$16,643.9</td>
<td>$19,288.4</td>
</tr>
<tr>
<td>Norfolk</td>
<td>$20,536.9</td>
<td>$23,087.7</td>
<td>$25,799.3</td>
</tr>
<tr>
<td>Portsmouth</td>
<td>$9,180.3</td>
<td>$9,770.6</td>
<td>$10,962.8</td>
</tr>
<tr>
<td>Virginia Beach</td>
<td>$31,379.3</td>
<td>$41,400.1</td>
<td>$44,753.6</td>
</tr>
</tbody>
</table>

Note: The figures are in millions of dollars and indicate dollars collected. Tax rates in the cities may not be the same. The fiscal year compares to the school year. For example, fiscal year 1986 would be the same as school year 1985-86. From *Hampton Roads Data Book*, July, 1994, pp. 185-190.
Table 11

Personal Property Tax Rates

<table>
<thead>
<tr>
<th>City</th>
<th>Fiscal Year</th>
<th>Fiscal Year</th>
<th>Fiscal Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1986</td>
<td>1988</td>
<td>1990</td>
</tr>
<tr>
<td>Chesapeake</td>
<td>$4.00</td>
<td>$4.00</td>
<td>$4.00</td>
</tr>
<tr>
<td>Norfolk</td>
<td>$4.00</td>
<td>$4.00</td>
<td>$4.00</td>
</tr>
<tr>
<td>Portsmouth</td>
<td>$4.35</td>
<td>$4.35</td>
<td>$4.35</td>
</tr>
<tr>
<td>Virginia Beach</td>
<td>$3.80</td>
<td>$3.80</td>
<td>$3.80</td>
</tr>
</tbody>
</table>


All four cities showed an increase in the taxes collected for real property and personal property. The size of the increases in Chesapeake and Virginia Beach were significantly higher than those in Norfolk and Portsmouth. Considering all of the Tables as a whole, the growth factor in Chesapeake and Virginia Beach created much more local ability to pay than the same measurements in Norfolk and Portsmouth.

An editorial in the Virginian Pilot on April 9, 1995 referred to the problems facing urban municipalities such as Portsmouth and Norfolk. The author specifically mentioned a proposal by Portsmouth’s City Manager to increase the real estate tax to pay for twenty-one new police offices. Norfolk was used as an example of having made a similar commitment a few
years ago for the same purpose, which resulted in lower crime rates. Other funds affected by Portsmouth's increase in police officers, though, included a reduction of the school budget by one million dollars. A quote from the article is appropriate to the plight of the older, urban core city: "A greater portion of Portsmouth's real property is exempt from taxation - because it is federal, State, or municipal property - than Washington's. It's population, like Norfolk's, gets older and poorer. Demand for public services is high. It has trouble paying its bills, though pay them it does....But the struggles of such cities in Virginia are harder than need be because of unhelpful State policies that hobble them" (The Virginian Pilot, 1995, p. A-8).

A local economist, John W. Whaley, spoke to the Hampton Roads Planning District Commission in 1995. His remarks were reported in the Virginian Pilot. The article stated "...Norfolk, Portsmouth, and a handful of other Hampton Roads cities already have to work harder than most jurisdictions in Virginia at generating tax revenue. Using calculations that compared tax rates and tax collections for 136 cities and counties in Virginia, Whaley determined that Norfolk and Portsmouth were the least able among 15 jurisdictions in Hampton Roads to generate greater tax revenue" (Shean, 1995, p. D-1).

The 1990 Census Data provided other informative statistics regarding the four cities that assisted in determining factors affecting local funding. Tables 12, 13, 14 and 15 illustrate a number of items that provided a snapshot look at each city in terms of the types of persons that inhabit each municipality, the value of the types of dwellings in each city, and the source of income of the citizens.
Table 12

Age of Population

<table>
<thead>
<tr>
<th>City</th>
<th>Median age of population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chesapeake</td>
<td>31.3</td>
</tr>
<tr>
<td>Norfolk</td>
<td>27.4</td>
</tr>
<tr>
<td>Portsmouth</td>
<td>31.7</td>
</tr>
<tr>
<td>Virginia Beach</td>
<td>28.9</td>
</tr>
</tbody>
</table>


Table 13

Population Age Range

<table>
<thead>
<tr>
<th>City</th>
<th>Percentage under 18</th>
<th>Percentage over 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chesapeake</td>
<td>28.7</td>
<td>8.5</td>
</tr>
<tr>
<td>Norfolk</td>
<td>23.0</td>
<td>10.5</td>
</tr>
<tr>
<td>Portsmouth</td>
<td>26.8</td>
<td>13.9</td>
</tr>
<tr>
<td>Virginia Beach</td>
<td>28.0</td>
<td>5.9</td>
</tr>
</tbody>
</table>


The median age reflected little difference between the cities, but the fact that Norfolk and Portsmouth have a smaller percentage of persons under 18 and a larger percentage of persons over 65 indicated that the idea expressed in the Virginian Pilot editorial earlier in this study may be true. The smaller percentage of citizens under 18 could mean that families with children are moving to other places besides...
Norfolk and Portsmouth. The larger percentage of persons over 65 has some effect on the taxing ability of the city and the level of income of the population.

Table 14

Percentage of Housing Units By Range of Value

<table>
<thead>
<tr>
<th>City</th>
<th>Under $50,000</th>
<th>$50,000 to $99,000</th>
<th>$100,000 to $149,000</th>
<th>$150,000 to $200,000</th>
<th>Above $200,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chesapeake</td>
<td>6</td>
<td>58</td>
<td>26</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>Norfolk</td>
<td>13</td>
<td>66</td>
<td>12</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Portsmouth</td>
<td>18</td>
<td>69</td>
<td>9</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Virginia Beach</td>
<td>1</td>
<td>54</td>
<td>27</td>
<td>10</td>
<td>9</td>
</tr>
</tbody>
</table>

Note: The figures represent the percentage of housing in each city attributed to each range of values. From Hampton Roads Data Book, July, 1994, pp. 28-62.

Table 14 provided significant data to indicate that the real estate tax base, which is the primary source of local funding, in Chesapeake and Virginia Beach is much higher than Norfolk and Portsmouth. In the same respect, a gap exists between Norfolk and Portsmouth. Seventy-nine percent of the housing units in Norfolk are valued below one hundred thousand dollars. The percentage of units valued below one hundred thousand dollars in Portsmouth is eighty-seven. At the other end of the scale, Portsmouth had only three percent of the units valued above one hundred and fifty thousand dollars while the next closest percentage at that level was ten percent (Chesapeake and Norfolk). Table 11 provided
evidence that the value of property in the urbanized areas of Chesapeake and Virginia Beach is greater than the property values of houses in Norfolk and Portsmouth.

The effect of a higher value on housing units and real estate is that a city could have a lower tax rate and provide more revenue for services than a city with a higher tax rate. These same cities must educate high cost students and must pay high salaries to teachers to retain them (Burrup et. al., 1993).

Table 15

<table>
<thead>
<tr>
<th>City</th>
<th>Median Income - Households</th>
<th>Median Income - Families</th>
<th>Median Income - Non-Family Households</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chesapeake</td>
<td>$35,737</td>
<td>$39,093</td>
<td>$20,899</td>
</tr>
<tr>
<td>Norfolk</td>
<td>$23,563</td>
<td>$26,818</td>
<td>$17,011</td>
</tr>
<tr>
<td>Portsmouth</td>
<td>$24,601</td>
<td>$28,517</td>
<td>$15,769</td>
</tr>
<tr>
<td>Virginia Beach</td>
<td>$36,271</td>
<td>$39,112</td>
<td>$26,224</td>
</tr>
</tbody>
</table>

Note: The figures under "Median Income" represent the dollar amount of the median annual salary in each category. From Hampton Roads Data Book, July, 1994, pp. 28-62.

Table 15 emphasized differences in the population of the four cities in this study. Chesapeake and Virginia Beach each have a median income that is over ten thousand dollars higher than the median income of both Norfolk and Portsmouth in household income data and in family income. JLARC indicated in Part 2 of their report to the General Assembly that
some consideration should be given to an income adjustment ratio in calculating the ability to pay percentage. The logic of that analysis was rooted in differences similar to Table 11. The ability of a division to raise revenue is based on the income of the residents, even if there is not a tax levy on the income itself (JLARC, 1988). The income adjustment ratio was not part of the recommendations adopted in 1988-90.

In summary, the statistics on municipalities indicated that, while Chesapeake and Virginia Beach reflected the more affluent characteristics of the four cities, the trends in population and taxes showed no significant shift during the 1985-86 to 1989-90 time period. The growth in Chesapeake and Virginia Beach had begun prior to that time, and continued through the period affected by the JLARC recommendations.

Statistical Information on the School Divisions in the Cities of Chesapeake, Norfolk, Portsmouth, and Virginia Beach. The concepts of equalization, pupil equity, and tax equity drove the JLARC study. The result of that effort should have been to provide assistance to poorer divisions that did not have adequate resources. If equalization formulae and pupil equity strategies were implemented and proved effective, the State funding to these four divisions would be reflective of the efforts. Data were collected from the Superintendent’s Annual Report for Virginia (formerly known as Facing Up) for the school years of 1986-87 through 1993-94 (the most recent verified data available). These data included actual expenditure totals, enrollment information, State revenue totals, local revenue totals, and other pertinent statistics for the city school divisions of Chesapeake, Norfolk, Portsmouth and Virginia Beach.
The JLARC recommendations provided for the State share of all equalized funds to be increased from fifty percent in 1987-88 to fifty-one percent in 1988-89, fifty-two percent in 1989-90, fifty-three percent in 1990-91, fifty-four percent in 1991-92, and fifty-five percent in 1992-93 (See Table 2). It would remain at fifty five percent all years after 1992-93. Because of this change, the composite index for each of the four divisions reflected the reverse of the increased State share (a corresponding decrease in the local share). Table 16 represents the change in the composite index over the eight years reviewed as well as an eight year average for each school division.
Table 16
Local Composite Index, 1986-87 through 1993-94

<table>
<thead>
<tr>
<th>Year</th>
<th>Chesapeake</th>
<th>Norfolk</th>
<th>Portsmouth</th>
<th>Virginia</th>
</tr>
</thead>
<tbody>
<tr>
<td>1986-87</td>
<td>0.3908</td>
<td>0.4508</td>
<td>0.3571</td>
<td>0.4689</td>
</tr>
<tr>
<td>1987-88</td>
<td>0.3908</td>
<td>0.4508</td>
<td>0.3571</td>
<td>0.4689</td>
</tr>
<tr>
<td>1988-89</td>
<td>0.3921</td>
<td>0.3885</td>
<td>0.3148</td>
<td>0.4520</td>
</tr>
<tr>
<td>1989-90</td>
<td>0.3841</td>
<td>0.3806</td>
<td>0.3084</td>
<td>0.4428</td>
</tr>
<tr>
<td>1990-91</td>
<td>0.3762</td>
<td>0.3387</td>
<td>0.2824</td>
<td>0.4041</td>
</tr>
<tr>
<td>1991-92</td>
<td>0.3682</td>
<td>0.3315</td>
<td>0.2764</td>
<td>0.4016</td>
</tr>
<tr>
<td>1992-93</td>
<td>0.3379</td>
<td>0.2952</td>
<td>0.2489</td>
<td>0.3503</td>
</tr>
<tr>
<td>1993-94</td>
<td>0.3379</td>
<td>0.2952</td>
<td>0.2489</td>
<td>0.3503</td>
</tr>
<tr>
<td>8 year avg.</td>
<td>0.3723</td>
<td>0.3664</td>
<td>0.2993</td>
<td>0.4182</td>
</tr>
</tbody>
</table>


Portsmouth's composite index dropped over thirty percent from 1986-87 to 1993-94 and Norfolk's dropped over thirty-four percent for the same period. The corresponding decrease in the local share (noted in Table 2) would account for some of the reduction, but, considering the
factors noted above in the data regarding the fiscal situation in the cities, the drop in Norfolk and Portsmouth could best be attributed to a loss of ability to pay at the local level. The loss of retail sales, the smaller growth in new vehicle registrations and the real estate values and taxes collected had a negative effect on the computation of the composite index.

Figure 1 showed the composite index formula and the Basic Aid formula prior to JLARC 2 being adopted. Figure 2 shows the updated versions of the formula that computes the composite index. The Basic Aid formula remained the same. The changes to the composite index calculation were approved by the General Assembly with the 1988-90 State Budget.
Composite Index

- ADM Component =

\[
\begin{align*}
\text{Local True Values} & \quad \text{Local Adjusted Gross Income} & \quad \text{Local Taxable Retail Sales} \\
\text{Local Population} & \quad \text{Local ADM} & \quad \text{Local ADM} & \quad \text{Local ADM} \\
.5 & + .4 & + .1
\end{align*}
\]

\[
\begin{align*}
\text{State True Values} & \quad \text{State Adjusted Gross Income} & \quad \text{State Taxable Retail Sales} \\
\text{State Population} & \quad \text{State ADM} & \quad \text{State ADM} & \quad \text{State ADM}
\end{align*}
\]

- Population Component =

\[
\begin{align*}
\text{Local True Values} & \quad \text{Local Adjusted Gross Income} & \quad \text{Local Taxable Retail Sales} \\
\text{Local Population} & \quad \text{Local Population} & \quad \text{Local Population} \\
.5 & + .4 & + .1
\end{align*}
\]

\[
\begin{align*}
\text{State True Values} & \quad \text{State Adjusted Gross Income} & \quad \text{State Taxable Retail Sales} \\
\text{State Population} & \quad \text{State Population} & \quad \text{State Population}
\end{align*}
\]

- Local Composite Index =

\[
(.6667 \times \text{ADM Component}) + (.3333 \times \text{Population Component}) \times .45
\]

Figure 2. Local Composite Index Formula After JLARC

Note: These calculations reflect the changes approved by the General Assembly as recommended by JLARC 2. The last number (.45) at the end of the formula reflects the State share of the formula as of 1995. The State share was (.50) prior to JLARC and gradually reached the lower number shown in Figure 2. The Basic Aid formula was the same as shown in Figure 1. From: Virginia Department of Education, 1995.
The Average Daily Membership (ADM) is a critical part of the Basic Aid formula and the calculation of the Local Composite Index. In the four cities being examined in this study, the ADM represents further documentation of the reasoning for the changes in State funding to each school divisions prior to the recommendations from JLARC I and JLARC 2. Table 17 shows the change in ADM between 1985-86 and 1993-94.
Table 17
March 31 ADM

<table>
<thead>
<tr>
<th>Year</th>
<th>Chesapeake</th>
<th>Norfolk</th>
<th>Portsmouth</th>
<th>Beach</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985-86</td>
<td>24,616</td>
<td>35,118</td>
<td>18,785</td>
<td>54,587</td>
</tr>
<tr>
<td>1986-87</td>
<td>26,339</td>
<td>34,950</td>
<td>18,655</td>
<td>62,134</td>
</tr>
<tr>
<td>1987-88</td>
<td>27,000</td>
<td>35,204</td>
<td>18,645</td>
<td>64,148</td>
</tr>
<tr>
<td>1988-89</td>
<td>27,545</td>
<td>35,104</td>
<td>18,536</td>
<td>66,311</td>
</tr>
<tr>
<td>1989-90</td>
<td>28,296</td>
<td>35,198</td>
<td>18,249</td>
<td>67,783</td>
</tr>
<tr>
<td>1990-91</td>
<td>29,463</td>
<td>35,115</td>
<td>18,089</td>
<td>69,794</td>
</tr>
<tr>
<td>1991-92</td>
<td>30,289</td>
<td>35,432</td>
<td>18,357</td>
<td>72,040</td>
</tr>
<tr>
<td>1992-93</td>
<td>31,738</td>
<td>34,892</td>
<td>18,131</td>
<td>73,503</td>
</tr>
<tr>
<td>1993-94</td>
<td>33,021</td>
<td>34,483</td>
<td>17,599</td>
<td>74,060</td>
</tr>
<tr>
<td>8 year avg.</td>
<td>28,701</td>
<td>35,055</td>
<td>18,338</td>
<td>67,151</td>
</tr>
</tbody>
</table>

From 1985-86 through 1993-94, the ADM of Chesapeake increased by an average of 3.3 percent per year, with a high of 4.8 percent in 1992-93. Virginia Beach averaged 2.5 percent increase for the same period, but the last two years, 1992-93 and 1993-94 showed less than a two percentage point increase. Norfolk and Portsmouth averaged -0.2 percent and -0.8 percent, respectively for the same period, with the higher percentage losses coming in the most recent two year period. The gain or loss of enrollment is critical to funding totals for these cities during this period of time. A loss of funding could be due to a drop in enrollment rather than any changes made by JLARC.

The JLARC recommendations from the first report in 1986 and the second report in 1988 drastically altered the funding for school divisions in Virginia. The 1986 report introduced the prevailing salary calculation and used the salaries to estimate the calculation of the actual cost of the Standards of Quality. The 1988 study provided the recommendations to improve pupil and tax equity and to alter the distribution methodology for State funding. The 1988-90 State Budget reflected many of the JLARC 2 recommendations. The assessment of the effect of both JLARC I and JLARC 2 is difficult, however, due to the number of changes that were made in all phases of State funding to public education. Due to the confusion brought on by the technical nature of the studies, and due to the fact that all divisions received increases, local officials indicated that the funding was not adequate, not that it was wrong (Denslow, 1988). Shown in Table 18 are the Basic Aid totals for the four cities in this study for 1985-86 (the year prior to any JLARC changes), 1986-87 (the year JLARC I was adopted), 1988-89 (the year JLARC 2 recommendations were included in the State Budget),
and 1993-94 (the most recent data available and the second year that the State share of equalized accounts reached the maximum of 55 percent).

Table 18

Basic Aid Payments

<table>
<thead>
<tr>
<th>Year</th>
<th>Chesapeake</th>
<th>Norfolk</th>
<th>Portsmouth</th>
<th>Beach</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985-86</td>
<td>$24,386,086</td>
<td>$30,164,211</td>
<td>$18,134,142</td>
<td>$49,555,364</td>
</tr>
<tr>
<td>1986-87</td>
<td>$26,831,134</td>
<td>$31,256,156</td>
<td>$20,435,215</td>
<td>$54,002,675</td>
</tr>
<tr>
<td>1988-89</td>
<td>$33,367,916</td>
<td>$40,258,570</td>
<td>$25,736,984</td>
<td>$71,122,735</td>
</tr>
<tr>
<td>1993-94</td>
<td>$50,587,335</td>
<td>$53,267,116</td>
<td>$31,286,251</td>
<td>$110,664,167</td>
</tr>
</tbody>
</table>

Note: Basic Aid is the cost of the foundation program described by the Standards of Quality and the State Accreditation Regulations. Costs are determined by using prevailing salaries for each required position and calculating fringe benefits using those salary totals. Support costs are also included in the calculation using prevailing costs. The numbers shown for 1985-86 were computed using the previous methodology employed by the State Department of Education (statewide average of salaries and support costs instead of prevailing salaries and support costs). From: Facing Up-21, 1987, pp. 52-53; Facing Up-22, 1988, pp. 52-53; Facing Up-24, 1990, pp. 52-53; and Superintendent’s Annual Report, 1993-94, 1995, p. 52.

Two factors can be noted as general reasons for the increase in Basic Aid payments to all four divisions during this time period shown in Table 18. First, the general increases caused by inflation and subsequent salary increases raised the per pupil costs used by the
State. Secondly, the composite index for each division was reduced, having the effect of increasing the State share of the cost of the foundation program. Beyond these two items, numerous other factors played major roles in the complicated calculations leading to the final product. As shown in Table 17, enrollment in the four school divisions changed over the years. Figure 2 indicated the effect of enrollment on Basic Aid. Norfolk lost approximately two percent of its enrollment between 1985-86 and 1993-94, but their Basic Aid payments increased by seventy-seven percent. Portsmouth lost approximately six percent of its enrollment, but its Basic Aid payment increased by seventy-three percent. Norfolk’s composite index dropped by thirty-two percent for the same span of years, while Portsmouth’s decreased by thirty percent.

Virginia Beach and Chesapeake increased Basic Aid funds by well over one hundred percent (123 percent for Virginia Beach and 107 percent for Chesapeake) in the 1985-86 to 1993-94 time period. Their enrollment increases were similar, with Virginia Beach growing by thirty-six percent and Chesapeake by thirty-four percent. The large Basic Aid increases resulted from more pupils and the lowered composite index (as indicated in Table 16).

Equalization was a key goal to be met in the JLARC 2 recommendations. Some State sources that were categorically funded prior to 1988 were changed to equalized accounts. Equalized accounts are calculated using the composite index and the state funding formula. Table 19 represents the total State funding to the localities in the same key years as noted in Table 18. Table 20 indicates the percent of total expenditures for each division that was funded through State revenue.
Table 19

Total State Aid

<table>
<thead>
<tr>
<th>Year</th>
<th>Chesapeake</th>
<th>Norfolk</th>
<th>Portsmouth</th>
<th>Virginia</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985-86</td>
<td>$35,681,528</td>
<td>$48,294,354</td>
<td>$26,451,621</td>
<td>$73,140,894</td>
</tr>
<tr>
<td>1986-87</td>
<td>$40,286,376</td>
<td>$51,398,806</td>
<td>$30,102,535</td>
<td>$81,893,612</td>
</tr>
<tr>
<td>1988-89</td>
<td>$47,394,069</td>
<td>$60,173,480</td>
<td>$36,218,288</td>
<td>$101,377,778</td>
</tr>
<tr>
<td>1993-94</td>
<td>$65,157,574</td>
<td>$75,296,449</td>
<td>$46,150,568</td>
<td>$142,343,826</td>
</tr>
</tbody>
</table>

Note. Total State funds include all dollars received from State SOQ Funds, State Categorical Funds, and any other funds from the State. In computing these data for the Superintendent's Annual Report, the State Department assumes that the locality would spend all of its State funding first, then all Sales Tax revenue, then all Federal funds, and, finally all other expenditures are counted as Local Appropriations. From Facing Up-21, 1987, pp. 48-49; Facing Up-22, 1988, pp. 48-49; Facing Up-24, 1990, pp. 48-49; and Superintendent's Annual Report, 1993-94, 1995, p. 58-59.
Table 20
Percentage of Total Expenditures from State Aid

<table>
<thead>
<tr>
<th>Year</th>
<th>Chesapeake</th>
<th>Norfolk</th>
<th>Portsmouth</th>
<th>Virginia Beach</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985-86</td>
<td>45.6</td>
<td>36.0</td>
<td>44.3</td>
<td>45.1</td>
</tr>
<tr>
<td>1986-87</td>
<td>46.8</td>
<td>34.7</td>
<td>46.3</td>
<td>45.5</td>
</tr>
<tr>
<td>1988-89</td>
<td>43.6</td>
<td>35.3</td>
<td>48.3</td>
<td>44.4</td>
</tr>
<tr>
<td>1993-94</td>
<td>40.5</td>
<td>37.3</td>
<td>49.7</td>
<td>42.4</td>
</tr>
</tbody>
</table>


The data in Tables 19 and 20 indicated that State funds became a larger portion of Portsmouth's total expenditures for operations. Norfolk fluctuated over the time period shown, but the most recent data showed State funds on the rise as a percentage of the total. Chesapeake and Virginia Beach showed a gradual decline in the percentage of their expenditures supported by the State. While Table 19 shows all State funding, Table 18 reported only the Basic Aid category. A comparison of the two indicated that Basic Aid became a larger percentage of the total State funding for Chesapeake and Virginia Beach between 1985-86 and 1993-94. During that period of time, the JLARC recommendations equalized more funds, which may have increased the percentage of funding that Portsmouth and Norfolk received in the accounts that had not been treated that way previously. Special education funds were equalized as a result of the JLARC recommendations adopted in 1988-90. A comparison of
the funding for Special Education in 1985-86 and 1993-94 indicated the
impact of the JLARC changes.

Table 21
Special Education Funding

<table>
<thead>
<tr>
<th>Year</th>
<th>Chesapeake</th>
<th>Norfolk</th>
<th>Portsmouth</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985-86</td>
<td>$1,241,106</td>
<td>$3,298,682</td>
<td>$998,070</td>
</tr>
<tr>
<td>1993-94</td>
<td>$3,650,159</td>
<td>$5,465,804</td>
<td>$5,413,423</td>
</tr>
</tbody>
</table>

Virginia Beach

Note: The totals for Special Education in 1985-86 represent the addition
of Special Ed Add On funds and Special Ed Categorical funds shown in
Facing Up. The totals for 1993-94 represent the total funding for
Special Ed as shown in the Superintendent’s Annual Report, 1993-94. From
Facing Up-21, 1987, pp. 48-52-53; and Superintendent’s Annual Report,

Changes in funding in this particular program area are sensitive to
the growing need for the services provided by the Special Education
program area, not just increased funds or altered funding methodology.
As the Superintendent’s Annual Report of 1992-93 verified, special
education enrollment is growing faster than the total enrollment. The
increase in the number of special education students was four times
greater than the increase in Average Daily Membership between the years
of 1988 and 1992. The specific impact of JLARC on these data cannot be
ignored, since all four cities have significant Special Education
expenditures. The increase in the percentage of funding for Special
Education ranged from sixty-six in Norfolk to four hundred and forty two
in Portsmouth. Particularly in the case of Portsmouth, the tremendous increase in funding resulted from the identification of more Special Education students since the total enrollment for that time period decreased. This supports the contention that urban centers are victimized by loss of enrollment, with many of the remaining students requiring expensive special services (Ascher, 1989).

In addition to the equalized accounts, other categorical aid had been added by 1993-94. The largest dollar increase was in the At Risk categorical aid. The totals for 1993-94 are shown in Table 22.

Table 22

<table>
<thead>
<tr>
<th>Virginia</th>
<th>Chesapeake</th>
<th>Norfolk</th>
<th>Portsmouth</th>
<th>Beach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1993-94</td>
<td>$504,335</td>
<td>$3,080,429</td>
<td>$1,673,026</td>
<td>$559,701</td>
</tr>
</tbody>
</table>


Table 22 is an example of the effect of categorical funding. The At Risk payments were an attempt by the General Assembly to address the disparity issue outside of the Basic Aid formula or the composite index. At Risk funding was added to the categorical items in the 1992-93 school year at a total cost of over twenty-three million dollars. The methodology for calculating the funding for divisions was similar to that of equalization, but instead of ADM being the driving force, the number of students on free lunch status determined the amount of funding for each division. The methodology did allow the funds to be apportioned based on the need of each division. The Final Report from the Governor’s
Commission on Educational Opportunity (1991) proposed that the need for education funding differed among the school divisions in Virginia. One of the reasons given for these differences was the high concentration of special needs students in some divisions. The Governor's Commission determined a need for a program that would provide "...extra services for students considered educationally disadvantaged because of family poverty" (Governor's Commission on Educational Opportunity for All Virginians, 1991, p. 12). The At Risk payments approved in the 1991 General Assembly resulted from that report.

The data in Table 22 noted that Norfolk and Portsmouth had a larger percentage of the total number of At Risk students in the State located in their schools than Chesapeake and Virginia Beach. These data offered logic to the explanation for the comparison of the total State funding showed in Table 19 and the Basic Aid shown in Table 18. The At Risk funding was not a result of the JLARC study.

The data suggest that, while all four cities represent the characteristics of urban areas, Norfolk and Portsmouth displayed more extreme cases. JLARC's recommendations were implemented at a time when the enrollment of Chesapeake and Virginia Beach City Public Schools were on the increase, Norfolk was fairly stable, and Portsmouth was on the decline. Personal communication with the members of the JLARC staff, the State Department of Education Staff, the staff of the research division of the VEA, and administrators in the finance areas of the four school divisions used in the study revealed that no specific investigation was done to assess the effect of the JLARC recommendations on the funding to urban divisions. These data provide evidence of trends that were present in the four cities.
Cross Case Analysis

Introduction. This section provides information related to the effect of the JLARC recommendations (from Parts I and 2 of the report) on funding for the four school divisions. The information is organized using the emerging themes from the interviews and the document review. The focus of the analyses will be the four cities, with the document review providing support. The interviews with the personnel from the school divisions will be the key elements of the data, with comments from other persons interviewed serving to support the school division responses.

The emerging themes of the study centered around the goals of JLARC and the impact on the four cities. Key to the goals, as determined by the document review and the interviews, were pupil equity and tax equity. Derived from these two issues were other topics such as the method used to calculate local ability to pay and the concept of equalization of funding.

Another emerging theme was closely related to the equity issues, but was more technically oriented and less theoretically based. The actual changes made to the calculations and the effect these changes had on the funding for the four divisions was referenced consistently in the interviews. Specific changes such as the use of the linear estimator in the prevailing salary computation and the calculation of the number of instructional positions were key elements in the determination of State funding to the urban localities. The interviews indicated that the complicated nature of these items prevented clear understanding on the part of the school divisions and led to confusion at the local level.
The method used by JLARC to communicate the findings of the study surfaced in the interviews as an important factor. The level of involvement of the local school divisions, professional associations and local government officials proved to be a concern to those affected by the recommendations.

The impact of characteristics of urban divisions on fiscal matters in the four cities was presented in the literature and mentioned by the respondents to the interview questions. While there was no goal related to easing fiscal stress in urban localities in the charge given to JLARC, the concept of pupil equity was dependent on funding. Funding was most critical in urban areas. Municipal overburden influenced tax rates and the ability of the locality to support education in the school division.

Pupil Equity. The definition of pupil equity developed by JLARC provided the direction for making changes to the State funding for education that would satisfy the task requested by the General Assembly and written in the Virginia Constitution. The attempt to provide a "meaningful foundation program" (JLARC, 1988, p. 3) for all students in Virginia school divisions was expressed as a very important goal of the JLARC study group. A member of the Governor’s staff during the Baliles administration admitted that the General Assembly listened for many years to complaints from the local school divisions and the VEA that the legislature was not fully funding the Standards of Quality (personal communication, May 19, 1995). These Standards represented the foundation program that the General Assembly required each school division to provide. The responsibility for determining the cost of the program was assigned to JLARC by the General Assembly in 1982 (JLARC, 1986).
In the interviews held to gather data for this study, administrators from the school divisions of Chesapeake, Norfolk, Portsmouth, and Virginia Beach responded that JLARC did not achieve its goal of fully funding the Standards of Quality. According to a financial administrator in one of the four divisions, "They said they would develop a method to achieve full funding of the Standards of Quality. Instead, they ultimately depressed the funding for education in the State. If equity was the goal, this was not really done" (personal communication, March 29, 1995). Another administrator suggested that more money was provided to education at the time the JLARC proposals were adopted, but "...the modifications made by the General Assembly and the Governor improved the JLARC recommendations" (personal communications, May 1, 1995). The improvements made by the Governor and General Assembly referred to the no loss provision which protected localities from receiving less funds than they received the previous year and the addition of the funding for the higher teacher raise and the duty free lunch monitors (Denslow, 1988).

A superintendent remarked that "There were political goals that were met. The primary political goal would be the reduction of the cost of operating the schools, or at least some methodology that would reduce the skyrocketing increase" (personal communication, March 29, 1995). Responses from all four school divisions indicated that there was some impression that the General Assembly may have been using the JLARC study to slow down or curtail the spending on education in the State. The position of the VEA on specific calculations used in the JLARC methodology implied similar efforts to stop the increase in funding to education from the General Assembly (VEA, 1988).
The JLARC staff and the staff of the Governor denied any other motives of the study when they were interviewed. The JLARC staff referenced the shortcomings of the methodology that had previously been used by the State Department of Education to estimate the cost of the Standards of Quality and the need to make improvements. One member of the study team from JLARC, responding in an interview for this research, referred to the increased number of funding sources that were equalized under their recommendations. The only major SOQ fund not equalized was the State sales tax (personal communication, May 19, 1995).

In an interview with a member of the Governor's staff during the implementation, it was stated that increasing the number of accounts to be equalized was one way to put money in the places that it needed to go the most without having to provide new revenue. He used the change in the method for funding fringe benefits as an example of equalization, saying that divisions with a high composite index (high ability to pay) were receiving the same State support for fringe benefits as those divisions with a low composite index prior to the changes implemented by the JLARC study (personal communication, May 19, 1995).

JLARC explained the State's responsibility for contributing to pupil equity as the provision of resources for pupils through an accurate calculation of the costs of the foundation program. Part I of their report provided the costs. Part 2 addressed the unique circumstances beyond local control that increased local costs. The variance of the per pupil amounts used in the calculation of the cost of the basic program for each division as proposed by JLARC and adopted by the General Assembly was a step toward better pupil equity, according to the staff and the written documentation of the results of the study.
A member of the State Department of Education staff responded in an interview that equity may not have been the issue with JLARC at all. Rather, the issue may have been to "...make sure the localities were paying a fair share" (personal communication, February 9, 1995). In an interview with a noted researcher in school finance who has worked with the Virginia Education Association in studying the JLARC reports, it was stated that "The issue was not equity. It was a political problem, not a financial problem. The political problem was the school and VEA persons said the state was not funding the SOQ fully" (personal communication, March 10, 1995). The same person went on to say that:

There was a hidden charge as well. The cost of K-12 education had been getting out of hand as perceived by several members of the General Assembly, particularly since the Robb administration. There was a concerted effort to move Virginia forward in education through better teacher salaries and programs. Some State leaders were afraid that the cost of education would continue to grow as it had and would eventually take all new funds as they were added to State revenues. The results of the JLARC study should ensure that this increase would not continue in the future as it had in the past. (personal communication, March 10, 1995).

A member of the VEA research staff was interviewed regarding the JLARC study. He referred to the changes that had occurred in years just prior to the JLARC study as did the researcher quoted above. One example provided by the VEA researcher mentioned the different approach used by State Superintendent Jack Davis in costing out the basic program in the State Department budget request.
When Jack Davis became Superintendent of Public Instruction, and he was a good person in terms of working with the different education interest groups, working with the Board and the public at large. All the work the education interest groups did had an impact on the Board, and what I saw during that period of time was that the Board presented a budget to the Governor that reflected need rather than gimmicks to constrain the costs. And what happened was that the politicians looked at this and I remember one of the two year budgets that Jack Davis presented that called for an increase of close to eight hundred million dollars for a biennium, and the politicians were embarrassed by that, but it did put pressure on them to do something, and they did come up with more money. This contributed to the effort on their part to get control of the process. (personal communication, April 7, 1995).

In the same interview with the member of the VEA Research staff, it was noted that "If you equalize an amount of money without addressing the question of adequate funding, you have not improved pupil equity. Equalizing more funds does not improve pupil equity. There is no statistical analysis to prove pupil equity" (personal communication, April 7, 1995). He made reference to a study done in 1990 and updated in 1991 by the VEA to measure the affect of the restructuring of the State formula on the disparity between more or less affluent divisions in Virginia. Quoting from the 1990 study, the results are summarized by this statement: "According to thirteen equity statistics the gap in funding for education between more or less affluent school divisions in the Commonwealth of Virginia has increased following enactment of the major restructuring of school finance" (VEA, 1990, p. I). The 1990 study
looked at 1987-88 and 1988-89. The 1991 study added 1989-90 and the results showed "...a further erosion of wealth neutrality in 1989-90 than for either 1987-88 or 1988-89". The 1991 report went on to say "Because the goal of a state finance system is to counteract the effects of local fiscal capacity on education opportunities, the finance formula enacted in the 1988 General Assembly continues to be impotent" (VEA, 1991, p. 2).

In summary, the school division personnel, the VEA, some State Department of Education personnel, and a noted school finance researcher did not agree that the issue of pupil equity was adequately addressed by recommendations implemented due to the JLARC report. The JLARC staff representative and the member of the governor's staff pointed out that the increased emphasis on equalization indirectly improved the pupil equity across the state. The data for the four school divisions indicated that funding in the equalized accounts was increased for each city, but research completed by the VEA supports the claim that pupil equity measures decreased after the implementation of the JLARC recommendations in the 1988-90 biennium.

Tax equity. The second primary goal of the JLARC study was to be sure that no school division paid more from their local resources than they could afford in order to achieve the education mandates issued by the State. The JLARC definition of tax equity developed for the study suggested that achievement of this goal would be met when "...the proportion of local taxable resources required to provide a meaningful foundation program does not vary greatly across localities" (JLARC, 1988, p 3). To complete this task, JLARC looked at the SOQ cost calculations and the sensitivity of these costs to local conditions.
JLARC also examined the method used to determine the calculation of the ability of the locality to pay for their share of the costs (JLARC, 1988).

During the interviews for this study, a superintendent responded to one of the questions concerning taxpayer equity by noting that the computation of the composite index may not be the most impartial means to determine what a locality can pay. He commented on the fact that cities and counties are treated the same way in the calculation, even though cities have a greater amount of money pulled for services to the citizens in other areas. According to him, JLARC did not provide for those types of different needs. The example he used was relating to the capital needs of a school division and the city. His comment was:

Roads, services, sewer and water services needs create the proposals for selling bonds. The debt service will grow and eventually obscure operating costs. The JLARC formula supports teachers, textbooks (to some degree), but no capital support. With the exception of the literary loan, there is not capital support. The funds provided for Curriculum and Instruction do not provide for costs for buildings nor renovations. The cost of maintenance and the purchase of land is left to the locality. The full cost of the buildings falls to the taxpayer at the locality level (personal communication, March 29, 1995).

All representatives of the school divisions in the four cities responded in the interview that, while more emphasis was given to tax equity than pupil equity in the JLARC study and State funding in general, the JLARC recommendations were not a solution for the variation in the local taxing abilities of the various school divisions in the
State. The differences in the local property tax rates shown in Table 11 indicate that the larger cities were able to tax at lower rates.

Members of the staff at the State Department of Education reported in their interviews that the JLARC study did not change the formula for computing the local composite index. Making no change was an indication that there was not a better solution. One comment from the State Department staff was, "They really did not change anything in the composite index....They ran a lot of options and said to the General Assembly, here you choose. They are not shy folks, and, if they had seen one that was better, they would have recommended the change" (personal communication, February 9, 1995).

In an interview with a member of the JLARC staff, it was revealed that JLARC looked upon pupil equity and tax equity as two different issues. He stated that improving tax equity was achieved by equalizing more accounts (personal communication, May 19, 1995). Before JLARC, the only accounts equalized were Basic Aid, and, more recently funds for Gifted and Talented and the transition funds. The JLARC recommendations included Special Education, Vocational Education, Remedial Education, and fringe benefit accounts in the equalization formula (JLARC, 1988). The results of my interview with the member of the Governor's staff also indicated that the JLARC study improved tax equity, but his opinion was that the more important issue was pupil equity and how the recommendations affected the educational opportunities provided to each student (personal communication, May 19, 1995).

Improving tax equity for citizens of the localities was difficult to achieve. Inequities in taxation patterns of localities prevent one formula from making all the adjustments necessary to reduce the burden
on those divisions with less ability to pay (Burrup et. al., 1993).

Taxes are the bases for government revenue, and education is only one aspect of local government. Local taxpayers have been strained by taxes in the cities, with the property tax absorbing much of the burdens at that level (Thompson, Wood and Honeyman, 1994). JLARC looked at a way to align the income level of a division with the local share required in equalized accounts, but did not use that calculation in the form of a recommendation. An excerpt from the JLARC report clarified the income adjustment calculation in terms of tax equity:

Ability to pay could be viewed in terms of tax equity for local government units, where equal revenues are to be derived from equal, separately identifiable tax bases (this is the view implicit in the current composite index or the local revenue index). If ability to pay is viewed instead as taxpayer equity for residents, where equal revenues are to be derived from equal incomes, then income alone could be used as a basis for calculating local shares. If ability to pay is viewed as a combination of local government (tax) equity and taxpayer equity, then the composite index or the local revenue index with an income adjustment could be used. (JLARC, 1988)

Improving tax equity was a goal of JLARC. They (JLARC) used the increased number of equalized accounts in the State funding source as evidence of more money being provided to divisions whose limits in taxing powers precluded their paying as much toward education as other divisions. The critics of JLARC looked more broadly at the effects of the changes on the school finance formula and suggested that the nature and complexity of the revisions clouded an effort on the part of JLARC and/or some leaders in the General Assembly to depress school funding or
at least to slow down the growth that had been present in the early and mid 1980's.

Changes to calculations of instructional positions and the calculation of the prevailing costs. These two issues were viewed by the school divisions as being completely separate, even though the calculation of prevailing salaries was critical to the funding of instructional positions. There seemed to be no disagreement from anyone, including the VEA critics, that the work done by JLARC to estimate costs based on actual enrollment and current standards was logical. Rather than use a statewide average for the number of positions needed by a school division, the number of instructional positions was determined by the student housing configuration in each grade of each school as reported by the respective divisions in an enrollment report given to the State Department of Education each year. The State Department of Education employees who were interviewed agreed with the use of enrollment at each school to determine instructional staff. An administrator in the Budget and Finance areas in the State Department said, "They recognized different implementation costs. That is the biggest thing they did. Different localities have different costs to implement the same standard" (personal communication, February 9, 1995). Another employee of the State Department of Education noted that the JLARC recommendations "...recognized the number of positions that are required by each school division, based on the students served...and how schools are set up...such as a city with poor students that need more special ed or remedial services" (personal communication, February 9, 1995).
A school finance researcher who generally criticized the JLARC reports said in an interview, "Philosophically, it was hard to fault what they were trying to do. They tried to set up a system that obtained costs for the SOQ on a district by district, school by school basis" (personal communication, March 30, 1995). He gave credit to JLARC for creating a sound underpinning by using enrollments in vocational areas and for using the number of special education students reported by the divisions.

A State Department of Education administrator reflected on the situation that caused the General Assembly to make the assignment to JLARC by noting the number of school divisions that complained about the small number of instructional positions funded. He stated that the General Assembly "...got tired of always answering that. They went to JLARC to find out how many positions it should have taken to fund the SOQ" (personal communication, February 9, 1995).

The effect of the change in the calculation of instructional positions (as noted earlier in this research) was that divisions with student populations more spread out received credit for more positions. The JLARC official interviewed indicated that this may have affected rural divisions more favorably if their enrollment was spread more thinly over a larger land area. No study was done to verify this finding, but the JLARC official also noted that, in comparison, an urban school with crowded conditions would not have fared as well (personal communication, May 19, 1995).

The only negative reaction to the change in the method of calculating instructional positions noted in the interviews for this research came from an official of the Virginia Education Association.
This person from the VEA research office commented that the JLARC changes would allow administrative manipulation to take advantage of the process and provide more State funding to a division only because of the reconfiguration of classroom assignments. The VEA official reasoned that a finance system should not be designed to allow that kind of variation by the local school divisions (personal communication, February 9, 1995).

The reaction to JLARC's recommendations by the four school divisions included in this study to JLARC's recommendations did not focus on the increased instructional positions allowed by the change in methodology. Each of the financial administrators indicated that the change in the way the average salary was calculated had the effect of lowering or depressing the overall funding from the State to the localities. An administrator for Chesapeake made it clear that Chesapeake salaries were higher than the prevailing salary that was calculated using the linear weighted average.

The lower average salary resulted in a loss of funds for the school division. When the funding for the instructional positions was adjusted using a statewide average salary (as had previously been used by the State Department of Education prior to the JLARC changes) every division would have gained funding due to the higher salary used to compute State revenue (JLARC, 1988). The permanent effect of the change to the l-estimator was noted by the Chesapeake finance administrator in an interview.

In the interview held with the Norfolk Public Schools finance official, he said that the legislature must have heard the complaints from the Northern Virginia school divisions about the use of the lower
prevailing salary. In his words, "...the l-estimator discounting the cost of expenses of Northern Virginia localities was something that the legislators responded to" (personal communication, May 1, 1995). A superintendent stated in the interview that the l-estimator lowered the average salary in all of the calculations for State funding.

The school finance researcher interviewed for this study was emphatic in his concern for the use of the l-estimator. He said:

The single biggest factor that led to the depression of costs for school districts, not only when the study was implemented, but continues to depress the cost, was the l-estimator. In my opinion, and in the opinion of many others, this statistical tool has no place in the analysis. The purpose of this tool in statistics is to reduce the effects of the outlying salaries in the averaging of teacher salaries across the state. There is no reason to use something like this in averaging salaries. What happened was that the most populous area (Fairfax) was eliminated from the average because it was at the top, and one of the least populous areas (Highland County) was chopped off the bottom. Highland has very low teacher pay. The effect of this statistical tool was that the average salary used in the calculation of funds to all localities was not only lowered, but the l-estimator guarantees that it will stay low in comparison to the actual average. (personal communication, March 30, 1995)

A conflicting viewpoint was proposed by a State Department of Education official when interviewed on JLARC. The administrator in the Budget and Finance office reflected on the reasoning that had been used when the actual average salary was computed to be used in funding the
instructional and support positions, describing it by saying "...we had done it that way for years and probably could not even remember where it came from, but secondly, it was a goal to compare Virginia’s average salary to the national average" (personal communication, February 9, 1995). The change to the 1-estimated salary did not enhance the chances of moving the state average closer to the national average.

VEA officials also criticized the use of the 1-estimator. Their research director, in a response to an interview question, explained that JLARC perceived the actual average salary calculation used by the State Department of Education as a weakness of the previous methodology. The 1-estimator did have the effect of reducing the extremes on the cost, but, he reasoned that the statistical calculation was designed to be used where a sample was available, not in a situation where all the data (salaries, in this case) were available. He said that "...the use of the 1-estimator has the effect of underestimating the true cost of the Standards of Quality" (personal communication, April 7, 1995).

The representative from JLARC interviewed for this study did agree that the 1-estimator was the most criticized part of the study. He defended its use by indicating that it was chosen due to the spread of salaries across the state. He further stated that JLARC could have chosen to use the median salary instead of the 1-estimated salary if they were attempting to reduce costs as some critics say. The use of the median salary in the State would have resulted in an even lower prevailing salary than had been calculated using the 1-estimator. He defended the use of the 1-estimator as a legitimate measure which can be employed to capture the central tendency of data (personal communication, May 19, 1995).
While these excerpts from the interviews do represent conflicting points of view, it is important to note that there was no indication in the interviews that either side questioned the integrity of the other. The agreement on the instructional position calculation is sometimes overshadowed by the rather sharp disagreement over the 1-estimator. It was clear in the interviews that the local officials, the State Department of Education officials, the VEA officials, and the others interviewed had respect for the work that was done by the JLARC staff and simply disagreed with the logic used.

The key area of disagreement, however, was the method determined for computing prevailing costs. The greatest impact on the amount of funding provided to the localities came from the use of the 1-estimator in calculating the salaries for instructional positions, but it should be remembered that this was also used for deciding on the prevailing support costs used in the funding calculation. In the interview held with the school finance researcher, he summarized the changes by noting that

The bottom line to remember is that there was not real dramatic change with the JLARC study. Except for the use of the 1-estimator, and the few formula changes, things pretty much stayed the same and school districts did not make significant gains. (personal communication, March 30, 1995)

Urban characteristics and the JLARC recommendations. The connection of the pupil equity goal of the JLARC study and the unique needs of the urban school division were recognized by the school finance officials interviewed for this study. All four administrators work in divisions with urban characteristics as defined by the U. S. Census Bureau. Urban
school systems are charged with the responsibility of educating most of the students in most of the states. The concentration of expensive and difficult conditions such as substance abuse, crime, and diminished resources cause administrators to face unique funding problems (Spiva, 1991). It is not unusual for policy makers at the state level to treat all schools in the state the same. The differences that the administrative staff faces are not reflected in the funding (Louis and Miles, 1990).

These same problems were noted by the financial officers of the four divisions interviewed for this study. In Chesapeake, the problems with special education, poverty, teachers stress in the classroom and home problems were identified by one administrator questioned. Another Chesapeake leader mentioned the high pupil-teacher ratio present in urban schools. Considering the JLARC formula that benefits a more spacious arrangement of students, larger classes do not provide more funding (personal communication, March 29, 1995). Norfolk noted the high cost of at risk students (personal communication, May 1, 1995). Portsmouth’s administrator pointed out the problem of old buildings that cannot be fixed or properly maintained (personal communication, May 10, 1995).

In addition to recognizing the problems faced within the school division, the administrators all agreed on the significant competition for funds in the urban centers. The factor of municipal overburden was noted by Chesapeake in a statement by one administrator: "...needs for roads, fire, and police...are typical in Chesapeake" (personal communication, March 29, 1995). The administrator from Norfolk Public Schools commented that "The same tax base that is used for education has
to provide juvenile court, police and fire protection, recreation, parks, social services...much more extensive than suburban areas” (personal communication, May 1, 1995). The administrator from Virginia Beach suggested that urban areas provide more services to citizens. He said “That is why people move to urban localities - to get better services” (personal communication, May 11, 1995).

A superintendent interviewed agreed with the Virginia Beach administrator by commenting “Citizens with social problems needing welfare and having many transportation needs tend to come to the cities to get these services. This situation creates special problems for cities. It is unfair to use the same rules to fund cities” (personal communication, March 29, 1995). The municipal overburden theory was prominent in the viewpoints expressed by each of the four school divisions.

When questioned as to whether the JLARC recommendations favored rural or urban divisions, none of the interviewees from the school divisions responded that the urban areas were preferred. While the opinions were consistent, none of the four had any concrete evidence, only an opinion that the urban differences were ignored by JLARC.

The JLARC staff member admitted in the interview that the researchers did not calculate the effect of the recommendations on urban and non-urban divisions. It was his opinion, though, that, because of the increased equalization, the low composite index divisions were helped the most (personal communication, May 19, 1995). The member of the governor’s staff did not believe that the recommendations favored urban divisions over any other, but he did admit that the urban
localities had more competition for the tax dollar than did the non-urban areas (personal communication, May 19, 1995).

The Virginia Education Association did not compute the figures for urban and non-urban in determining the effect of JLARC (personal communication, March 30, 1995). The representative of the VEA interviewed during this study suggested that the low capacity (poorer) divisions may have suffered the most by the effects of the JLARC recommendations (personal communications, April 5, 1995). Lower capacity divisions would include many of the urban areas.

The school finance researcher interviewed for this study agreed that no specific review was done on the JLARC recommendations regarding the effect on urban divisions. He did comment that:

Urban districts weren’t advantaged by the change in calculation method...the JLARC methodology actually rewards inefficient staffing. If a city has larger schools with large classes, it negatively impacts the funds they will receive because of the way the positions are calculated. If Virginia Beach were to create all one room schoolhouses, they would probably break the State treasury. Smaller divisions with small schools geographically dispersed do well under this methodology. (personal communication, March 30, 1995)

The same person suggested that the inclusion of equalized remedial funding and special education funding and the cost of competing factor do indicate that some consideration given to urban conditions. He indicated that the special education costs increase urban divisions’ fiscal problems, but the JLARC recommendations would have assisted
cities more if special education students had been weighted (personal communication, March 30, 1995)

The four local divisions examined in this study were designated as urban earlier in this research, based on the definition of urban provided by the U. S. Census Bureau. While no definitive study exists that singles out urban divisions in Virginia and applies the JLARC recommendations to them, the data provided in analysis and through the interviews suggest that the equalizing of the accounts may have assisted divisions with low measures of ability to pay, and, considering the diminishing resources of urban areas, they may have benefited. The studies by the VEA mentioned earlier provided some evidence that pupil equity was not improved by the JLARC recommendations.

Communication issues in the JLARC study. The JLARC study changed the way the General Assembly funded education in the Commonwealth of Virginia. The impact on all of the school children in the State cannot be minimized. As the interviews were developed and the documents were examined, it became evident that a key theme throughout was the time spent (or not spent) by JLARC in communicating its goals and recommendations to the localities and the various publics that were to be affected by the final plan. The critics of the JLARC plan saw a retreat from the previous administrations of Governors Robb and Baliles. They saw the State moving away from the commitment to fund education. Based on the data provided through interviews of the local school officials, JLARC did not attempt to communicate its intentions clearly to the persons that were to be affected most by the changes. This included the State Department of Education personnel. As stated by one of the local school division administrators, "...the major source of
communication was the education association and the superintendent’s assessment. JLARC’s initial report talked about limited distribution, and the second report was highly technical and people did not understand” (personal communication, May 1, 1995). The staff of JLARC did hold meetings in various regions of the State to report on the findings after the fact, but, for the most part, the localities saw these as providing information on how things were to be, not solicitation of opinions. As implied by a superintendent during the interviews “Educators in the State of Virginia were naive. They thought that the right thing would be done by this group, so they did not inquire during the process, even though they were not being involved” (personal communication, March 29, 1995). When the studies were made public, they were misunderstood. The most critical error made by JLARC was in expressing the financial comparisons from biennium to biennium. Most school divisions were accustomed to seeing funding from one year to the next. The biennial comparisons made it appear as though there were more dollars being gained than actually were being distributed. When the truth came to light, school divisions were disappointed (personal communication, March 29, 1995).

The JLARC staff understood the criticism from the professional organizations because they knew that enough money had not been included to satisfy their needs. The VEA was somewhat pacified when the General Assembly added more money to the teacher salary mandate for the 1988-90 biennium (personal communication, May 19, 1995).

Due to the complicated nature of all of the calculations, JLARC did not supply necessary data to the school divisions and the other organizations in a timely fashion. Since the appropriate persons could
not verify the new calculations, they were skeptical of the fairness that JLARC exhibited. This was a factor contributing to the lack of acceptance by the divisions and the professional organizations. The Department of Education was only involved to the point of providing data, not analyzing it (personal communication, February 19, 1995). The VEA accused JLARC of working in isolation and not accepting invitations to come to meetings with them to provide explanation (personal communication, April 5, 1995).

No educators were included on the JLARC study group, nor were they consulted during the study. JLARC did visit school divisions to verify data and meet with selected groups. They did not seek assistance from the school divisions (personal communication, March 30, 1995). State Department officials suggested in interviews that JLARC depended entirely on data collected. They did not seek information outside of their own offices (personal communication, February 19, 1995). The school finance researcher noted in his interview that:

Most of the information they used came from the Department of Education and the Department of Taxation. Not much, if any, information came from the school districts. They did a few surveys with school districts, but, because no one was working with the data from education, I do not know how it was interpreted. (personal communication, March 30, 1995)

This was in contrast to the process used in creating the funding formula in the early 1970's.

JLARC reported to their own commissioners on the status of the project and answered questions to other General Assembly members when asked (personal communication, May 19, 1995). When questioned about the
general understanding of the General Assembly regarding the JLARC recommendations, respondents in the interviews generally agreed that only a few of the General Assembly members understood, but most of the members looked to a few key legislators that did understand for their direction. In an interview with a member of the General Assembly, this interpretation was confirmed (personal communication, May 9, 1995).

Evaluation of the content and effects of the JLARC recommendations is important. The communication of these recommendations and the sources used to formulate each one is also important. Involvement on the part of the education community was missing. In the 1972 task force, according to the VEA researcher staff member that was interviewed, included educational finance researchers as well as politicians who combined to form a team that "...understood the school finance picture and what was and was not a good approach" (personal communication, April 7, 1995).

The JLARC staff contained no educators and they provided no detail of their methodology until the General Assembly had already approved the recommendations (personal communication, March 30, 1995).

**Summary of the findings.** This study was directed toward answering the following research questions:

1. How did the recommendations made by JLARC affect State funding to localities in the school divisions of Chesapeake City, Norfolk City, Portsmouth City, and Virginia Beach City?
2. How did the JLARC recommendations accomplish the goals that were intended when commissioned by the General Assembly? Specifically, did the methodology provide more equitable funding among all school divisions?
3. How did the implementation of the JLARC recommendations address municipal overburden and other issues facing urban school divisions in Virginia?

The findings presented in this chapter were based on the review of documents critical to the JLARC study and other documents that resulted from the issues in the study. Three distinct groups were interviewed for detailed information regarding the JLARC study. These groups were the finance persons in each of the four school divisions used as case examples, including a superintendent in one of the divisions; technical practitioners in the area of school finance in Virginia, including staff of the State Department of Education in Virginia, staff of the Virginia Education Association’s Research Division, and a nationally known school finance researcher; and, members of the staff of the Governor and General Assembly during the time of the JLARC studies, including a member of the JLARC staff, a former Secretary of Education, and a member of the House of Delegates.

The results of the interviews and document reviews revealed specific instances in the JLARC studies and changes to the state funding methodology for public education that corresponded to the school finance issues noted in the literature review. While state funding to public schools, in general, is increasing, it is not doing so at a level that matches the rising costs of education. In a study completed by the Education Commission of the States in 1993, it was noted that growth in spending for education slowed down or stopped just about the same time that the JLARC recommendations were adopted (1989-90) (Augenblick, Van de Water and Myers, 1993). The VEA pointed this out in the numerous publications regarding the JLARC study, even implying that the
underlying goal of the JLARC study was to slow down the increase in education funding that was present in Virginia during the early 1980’s. Public school finance administrators agreed with the interpretation of the VEA, but, due to the fact that the JLARC study was coupled with increases in State funding and too complicated to criticize, there was no revolt on the part of the localities (personal communication, April 7, 1995).

The framers of the JLARC studies and the politicians who promoted it claimed that the purposes were pure and simple. They were trying to improve pupil and tax equity through manipulation of some key funding elements contained in the State methodology. They also claimed to have provided the solution to full funding of the Standards of Quality.

The four divisions examined in the research provided examples of different types of urban school divisions. The complexity of the JLARC changes and the many elements of the State funding methodology that were adjusted made it difficult to point to any one change that negatively or positively affected funding to the urban areas, but some obvious adjustments to key funding areas were noted. The increased number of equalized accounts provided more funding for the two school divisions that were less able to pay for services based on the composite index assessment (Norfolk and Portsmouth). The growing urban divisions of Chesapeake and Virginia Beach also gained from the change in the calculation of the composite index and the resulting increases in Basic Aid. Chesapeake and Virginia Beach gained funding due to the increase in student enrollment, but, because more services had to be provided with more students, the cost to the locality also increased.
Municipal overburden was recognized as a factor in funding in the four cities. Competition for funding at the local level was a fact of life for the finance persons from the four divisions. The literature suggested that municipal overburden resulted from more desire for services in urban areas (Brazer and McCarty, 1989). Struggles between school leaders and city leaders were noted as a problem by the school officials, putting more pressure on the State to increase the percentage of funding in the area of education. The Virginia Municipal League was an interested onlooker as JLARC developed. The effect of the study on the cities and towns of Virginia was very important to the city and town managers.

The overall evaluation of the JLARC study of the funding of the Standards of Quality by school divisions and other interested groups was not positive. The impact of the changes in the computation and the communication of the plans and their effect on funding did not have the intended results. A lack of involvement by local officials and school finance leaders was noted by the VEA as a reason for the failure of the JLARC I and JLARC 2 reports to be well received by the localities and the professional education organizations of the State.
CHAPTER V

Conclusions and Recommendations

This study of the effect of the JLARC recommendations on certain urban school divisions in Virginia was conducted to provide practical insight on the changes brought about by alteration of a funding formula for education in the Commonwealth. This chapter includes a brief review of the purpose, conclusions from the study, and recommendations for further research.

Review of the Purpose

The goals of the JLARC study, primarily focusing on issues of equity, were not unlike responses many states are making to challenges to the state funding systems for education. Minorini wrote that "Finance equity claims focus principally on the disparities in funding available to schools in high-wealth and low-wealth school districts within a state" (Minorini, 1994, p. 3). Virginia was no different. The creation of the funding methodology after the adoption of the revised Virginia Constitution in 1971 did not prove sufficient to meet the needs of the various school divisions in Virginia. The Standards of Quality were not being fully funded by the General Assembly and the Virginia Education Association and the local school divisions reminded the legislature of its constitutional responsibility.

Nationally, court cases such as Serrano v. Priest (1971) brought the issue of school finance to the attention of voters and education proponents. The exact nature of the legislature's responsibility was being defined, and by determining a set of standards known in Virginia as the Standards of Quality, the General Assembly attempted to meet its constitutional mandate. When challenges began to arise as to the
adequacy of the funding of these Standards of Quality in the 1980’s, the General Assembly turned to its research arm, the Joint Legislative Audit and Review Commission, to fix the problem.

In consideration of the work done by this Commission, three research questions provided the guidance for this study:

1. How did the recommendations made by JLARC affect State funding to localities in the school divisions of Chesapeake City, Norfolk City, Portsmouth City, and Virginia Beach City?

2. How did the JLARC recommendations accomplish the goals that were intended when commissioned by the General Assembly? Specifically, did the methodology provide more equitable funding among all school divisions?

3. How did the implementation of the JLARC recommendations address municipal overburden and other issues facing urban school divisions in Virginia?

The findings supported the contention that no research had been completed regarding the effect of the JLARC recommendations on urban school divisions in Virginia. The data from State Department of Education records and the Hampton Roads Planning District Commission provided characteristics and educational funding summaries for the cities and school divisions of Chesapeake, Norfolk, Portsmouth, and Virginia Beach. This information was used to draw conclusions specifically related to the urban areas using a qualitative research design.

Conclusions

1. The JLARC study was commissioned to improve funding to the local school divisions in Virginia. Specifically, it was charged with
assessing the cost of the Standards of Quality (JLARC, 1986) and reviewing the method of distribution of funds to the local school divisions (JLARC, 1988). While most studies and analyses of both parts of the JLARC report on education funding have focused on the consequences of the changes in the formulae and the specific calculations, it seems clear to all involved that more funding to education in general is the real necessity. The Standards of Quality are the minimum requirements for school divisions. The VEA criticized the State for funding only part of the minimum and suggested in their recent proposals that the Standards must be raised above the minimum. The fiscal interpretation of that is more money. The VEA quoted the telltale statistic that Virginia is the fourteenth highest state in the United States when all are compared in per capita income. Yet, Virginia ranks forty sixth in the country in the percentage of that income that goes to state and local taxes (combined) (VEA, 1995). Increasing taxes would be the solution in VEA’s example. They also suggested a realignment of spending priorities to achieve the improved funding goal.

The JLARC I report specifically refers to the limits of the study. It states “The study dealt with existing standards and did not address the question of what the standards ‘should’ be” (JLARC, 1986, p. I). They used exactly what the legislature and State Board defined as being the Standards of Quality (JLARC, 1986).

Options for making the Standards of Quality reflect more than a minimal program for all students in Virginia would be costly. References to the state’s responsibility to fund education were utilized throughout the literature and the constitutional certainty was sanctioned by the court. The courts upheld the right of a state to provide only the
foundation program in the funding requirements (Fulton and Long, 1993). The Standards of Quality are the minimal foundation program in Virginia and the JLARC study provided the means necessary to provide full funding from the State for that program (JLARC, 1986; JLARC, 1988). If Virginia wants to improve the educational program more than the minimal, it must change the Standards to reflect the improvements and fund it at a higher rate.

The Joint Legislative Audit and Review Commission only evaluated funding for public education based on the quantifiable standards that existed. The role of JLARC is to see how agencies of the State could operate more economically and efficiently (JLARC, 1993). The results of their efforts in this case may be criticized for not improving education in the State, but that was not their charge. They simply made sure that the Standards that were in place were funded properly and these funds were distributed equitably.

This study focused on the particular needs of urban school divisions because of the unique circumstances faced in cities. The Standards do not reflect special circumstances. Increased funding in the equalized accounts would benefit urban localities because they tend to have a lower composite index (increasing the State funds provided). In order to increase the equalized accounts such as Basic Aid, Special Education and Remedial Education, the Standards of Quality and/or the State Accreditation Standards would have to be upgraded. JLARC was not charged with researching the need to increase these basic guidelines.

JLARC did achieve the stated goals of assessing the cost of the Standards of Quality and evaluating different ways to distribute State funds to localities to help them meet SOQ costs. There were more
specific goals noted in the JLARC 2 document that related to such issues as improving pupil equity and tax equity. Pupil equity was defined as "...the provision of the resources necessary for a meaningful foundation education program for the pupils in all school divisions" (JLARC, 1988, p.3). Tax equity was defined as "...the apportionment of State and local responsibility for the SOQ program in a manner to ensure that the proportion of local taxable resources required to provide a meaningful foundation program does not vary greatly across localities" (JLARC, 1988, p. 3). Due to the inclusion of such words as "meaningful foundation program", it is difficult to assess the achievement of these goals. The VEA completed a complicated statistical study of pupil equity (defined as disparities in per pupil revenue between divisions) before and after JLARC. This study indicated that the disparities were larger after JLARC than before (Verstegen and Salmon, 1991).

Tax equity deals with the distribution issue. Since more funds were equalized, it may be appropriate to say tax equity was improved. The number of changes made to so many parts of the funding methodology cause this conclusion to be questionable.

2. Outside forces were influential in the JLARC final reports. Even if the JLARC staff members that conducted the research and wrote the report were not impacted by political events and the strength of the voting block in the General Assembly, there were parts of the report that reflected the political pulse of the State. The change in the transportation formula to provide more funding to divisions with vast amounts of land area between pick up and delivery of students favored the strong Northern Virginia voting contingent in the General Assembly.
The salary differential provided for planning district eight (Northern Virginia) had the same part of the State receiving an extra benefit.

The timing of the JLARC assignment from the General Assembly in 1982 coincided with the change in the philosophy of the Board of Education and the State Superintendent of Public Instruction regarding budget requests. The Board and the Superintendent (through the Department of Education) began to submit requests for large increases to accurately reflect the actual cost of the Standards of Quality and other needs brought on by higher costs. In previous years, the requests were made to be in line with the available revenue (personal communication, April 7, 1995). The General Assembly, due to the lack of available revenue, reduced the request of the Board and the Superintendent and, prior to JLARC, were not able to fully fund the Standards of Quality. Because not fully funding the Standards of Quality was a poor political statement, members of the General Assembly did not like responding when questioned on this issue. Until the State Board’s request was increased in order to fund the Standards, it was not as much of an issue (personal communication, April 7, 1995).

For these reasons, the conclusion was drawn that politics influenced the commissioning of the study by JLARC and some of the recommendations. Even the appointment of the State Superintendent was held up at one point when the JLARC reports were issued and he (the State Superintendent) had spoken out against some of the methodology (personal communication, April 7, 1995).

The urban contingent in the General Assembly provided some political strength, and the transportation formula change probably reflected their influence. It must be noted, however, that urban divisions (such as
Chesapeake, Norfolk, Portsmouth, and Virginia Beach) had low composite indices as is noted in Table 16. The equalization of Special Education funding, Remedial funding, and the increase in the State share of the cost of the Standards of Quality to fifty-five percent were all beneficial to their school systems. Northern Virginia localities generally have high composite indices and would not have benefited as much from these changes.

3. The changes brought about by the JLARC study increased the total funding provided by the State for all four cities used in the case study. Norfolk and Portsmouth increased in the percentage of total funding provided by the State. Chesapeake and Virginia Beach gained significantly in the Basic Aid category, but the percent of funding provided by the State did not increase. These statistics indicated that urban areas with different characteristics were affected in different ways by the JLARC study.

Norfolk and Portsmouth were both losing population in the city, and this had the effect of reducing the increase in Basic Aid. Figures 1 and 2 indicated the use of the population figure in the formula that computes the composite index. In the case of Portsmouth, student enrollment was also dropping during the period shown in Table 17.

Chesapeake and Virginia Beach were urban areas in a growth mode both in city population and school population. Virginia Beach wrestled the lead from Norfolk in both areas between 1970 and 1990. While both continue to grow today, Chesapeake’s rate of increase has surpassed Virginia Beach’s rate of increase (not total population or enrollment). The affect of the population and enrollment growth explains the increase in Basic Aid both cities and their respective school divisions enjoyed.
during this period. It is difficult to attribute the funding increase to
the JLARC recommendations. In fact, considering the change in the
accounts that were previously funded as categorical, both cities could
have been losers in the JLARC changes. Tables 18, 19 and 20 provided
evidence to this effect.

In a discussion with a member of the State Department of Education
staff during the interviews for this study, the staff member indicated
that it would be almost impossible to compare pre-JLARC funding with
post-JLARC funding due to the way the previous calculations were
determined. When the estimates were calculated to determine the cost of
the Standards of Quality prior to JLARC, the available revenue dictated
the percent of that total that could be funded. Because of the
subjective nature of the methodology, it would be very difficult to make
assumptions on the percentage increases in total funding, thus making a
comparison with JLARC amounts impossible (personal communication,
February 19, 1995).

Given the opinion of the State Department official, one can only
speculate on the effect of JLARC on the four school divisions. The
conclusions reached here, however point to the fact that Chesapeake and
Virginia Beach may have done better under the old format and Norfolk and
Portsmouth probably gained in State funding under the JLARC changes.

4. Some key elements of the JLARC recommendations were included in the
calculation of the salary estimates and instructional positions for each
school division. These two areas had mixed reviews in the interviews
held with local school finance officials and other individuals concerned
with the JLARC study.
The work done by JLARC with instructional positions was well received by almost every element of the education community. The only concern was the lower number of positions than actually used by school divisions, but the numbers used by JLARC were based on the Standards of Quality and the Standards for Accreditation. Calculation of the number of positions using actual data provided by school divisions was a well accepted part of the study and provided instructional staff based on their particular configuration of classes. The only problem with funding this method was that the data used was generally two years old when it was put into the calculation.

The primary issue in all of the JLARC study was the use of the linear weighted estimator statistic to calculate the prevailing salaries and the prevailing support costs for all school divisions. It should be made clear that the linear weighted average is being used by the State Department of Education at the current time to compute the salary estimates for all positions paid under the Standards of Quality. This statistical tool met the criteria of the JLARC staff, but was a major concern to all school divisions and the Virginia Education Association. Instructional salaries are a large portion of the funding provided by the State. The use of a statistical measure that lowered the salary by a significant percentage when compared to the salary used prior to JLARC was obviously depressing to the total funding provided from the State. JLARC’s position was clearly stated - the salary used by the State Department had been higher than the actual average salary in over eighty percent of the school divisions in the State. In addition, JLARC pointed out that, due to limited revenue, the actual average salary was really never funded by the General Assembly under the old methodology. This led
to the criticism of the legislature for not fully funding the Standards of Quality.

The use of the l-estimator was a cost saving measure. JLARC also saw it as a more realistic approach to computing costs across the State to be applied to the calculation of State funding. The school finance researcher interviewed for this study and other researchers in the written analyses of JLARC identified the l-estimator as a statistical tool used when only sample data are available. The actual salaries of all teachers across the State were available, as well as the average salaries calculated each year in Superintendent’s Annual Report.

Both the instructional position calculation and the use of the l-estimated salary were not helpful to the four divisions examined in this study. Every finance person interviewed mentioned the negative impact of the l-estimator on funding for their respective division. Table 23 below shows a comparison of the l-estimated salary for elementary teachers used by the State Department for 1993-94 and the actual average for each of the four divisions examined in this study.
Table 23

Salaries of Elementary Teachers, 1993-94

<table>
<thead>
<tr>
<th>Year</th>
<th>Actual Average Salary</th>
<th>Actual Average Salary</th>
<th>Actual Average Salary</th>
<th>Actual Average Salary</th>
<th>Actual Average Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1993-94</td>
<td>28,776</td>
<td>32,911</td>
<td>34,017</td>
<td>30,157</td>
<td>31,733</td>
</tr>
</tbody>
</table>


The difference ranges from over five thousand dollars per elementary teacher in Norfolk to over one thousand dollars per elementary teacher in Portsmouth. The calculation of this salary is based on the increase in pay that the State suggested should be given. As noted in the literature (Minorini, 1994; Louis and Miles, 1990; Ascher, 1989), urban localities must pay more to attract and keep the best teachers. The salary increase must be based on competing divisions, not the State suggested amount. The difference in the 1-estimated salary and the actual will grow.

The conclusion reached here is that the 1-estimator was not only a public relations problem for JLARC. It depressed the full funding of the
Standards of Quality for those divisions that had higher salaries than the estimated amount. One of the goals of JLARC was equity. Use of the actual average salary would have been more equitable for urban divisions. If equity would attempt to offer relief to low wealth divisions (Minorini, 1994), the l-estimated salary was not a measure that led to accomplishing that goal.

With large schools and relatively large numbers of students per classroom, urban divisions such as the four examined in this study did not benefit from the change in calculation of instructional positions. A school finance researcher said in an interview for this study that, “The design of the new JLARC system resulted in a reward to small, inefficient rural districts. A sparsity factor was built into the system, perhaps unintentionally” (personal communication, March 30, 1995). Even though the change did not benefit the systems involved in this study, the calculation of instructional positions using actual school data was a positive part of the JLARC study recommendations and resulted in more instructional positions being funded across the State.

5. The issues of equalization and equity are interrelated and critical to any look at a state financing methodology. From the court cases of the 1970’s to the more recent disparity cases across the country and in Virginia, definitions of these two terms are aligned with solutions to the problems of school funding. The JLARC study of the funding for the Standards of Quality in Virginia resulted in the equalization of more funds in comparison to the previous methodology. Another result was an increase in the State share of equalized accounts (from fifty percent to fifty five percent as noted in Table 2).
These changes were beneficial to all four cities examined in this study due to the low composite index (local ability to pay measure) in each school division. Norfolk and Portsmouth had lower composite indices than Chesapeake and Virginia Beach and, consequently, benefited more.

One area of equalization that resulted from JLARC was in the fringe benefit accounts. The State had paid one hundred percent of all fringe benefits (employer’s share of Virginia Retirement System contribution, Group Life payments and Social Security contribution) for all funded positions. As confirmed by two persons in interviews, the arrangement to fund all fringe benefit costs was the result of an agreement many years ago in the General Assembly (personal communication, February 19, 1995; personal communication, March 30, 1995). It was a trade-off for not funding any capital outlay expenses for school divisions from State funds.

The change from one hundred percent funding to funding based on the composite index of a division obviously saved the State a lot of money. To offset some of the loss to localities, the State increased their share of equalized accounts from fifty percent to fifty five percent (see Table 2). Estimates from the State Department of Education noted in interviews with certain staff members indicated that the loss of fringe benefit payments exceeded the gain of the increase in the State’s share. JLARC contended that the full funding of fringe benefit costs was not equitable because more affluent divisions were funded at the same level as less wealthy divisions. This was certainly true. Since the fringe benefit change occurred at the same time as all of the other JLARC changes, it was not clearly noted by divisions as a loss. More study should have been initiated to determine the effect of this one change.
The idea was appropriate to the goal of JLARC, but the result proved costly for all school divisions.

6. The JLARC proposal, although it was complex and some problems existed with specific calculations, did provide the structure to use actual expenditures from school divisions to compute the cost of implementing the Standards of Quality. Full funding insures that costs will increase based on the Standards themselves, not legislator's opinions of what revenue is available.

Items noted above question the term full funding, but, based on the Standards in place currently and the methodology developed by JLARC, accurate projections may be made as to the cost of changes. For example, a recent change in the Standards of Quality called for a twenty-four to one school wide ratio in all English classes in grades six to twelve. Using the actual numbers of students in those grades and the l-estimated salary figure, an accurate cost was calculated for consideration of the change by the General Assembly (VEA, 1993). The structure set by the JLARC recommendations allowed that to occur.

7. The professional organizations of the State (Virginia Education Association, Virginia Association of School Superintendents, Virginia School Boards Association) did not favor JLARC's report. The conclusion to be noted here is that JLARC did a poor job of communicating their findings. In addition, JLARC did not use any of these groups as sounding boards during the preparation of the report. An official of the VEA said in an interview, "They (JLARC) work in isolation. We tried and tried to get them to come to meetings...there was not a person (in the JLARC staff)...that knew school finance theory and funding formulas and methodology" (personal communication, April 7, 1995).
JLARC did hold public hearings to see what people thought of the current funding formula, but most of the data gathered was from the State Department, not through contact with school divisions. This lack of involvement hurt the credibility of the report with the school divisions and the professional organizations from the beginning.

The most critical error made in the presentation of the findings by JLARC was the funding totals given to superintendents and other school officials at some of the meetings that were held to review the options in JLARC 2. School division personnel were used to seeing their State funding amounts in annual or one year totals. JLARC compared biennial totals, looking at one two year budget versus the other. Using this method, the increase in the first year of the biennium is also included in the second year of the biennium, making the total increase seem larger than it actually turned out to be. Nothing was incorrectly presented. It was simply a different way of observing the funding totals. School divisions left these meetings assuming that they would be receiving very large increases, and, because JLARC did not release any detail on the way they arrived at these numbers, no one had any concerns at that point. It was later, after more information filtered out of Richmond and the finance persons of the divisions began to look at the numbers closely, that school officials became disappointed (personal communication, March 30, 1995). It was as though they had lost funding, even though that was not the case.

JLARC was responsible to the General Assembly, not to the professional associations or the school division administrators. They reported to the JLARC Commissioners and responded to their questions. The briefings held with school personnel were a step in the right
direction and probably above the call of duty for the researchers hired by JLARC. Improvements here, though, could have allowed better exchange of ideas and more acceptance of the report.

School administrators from Chesapeake, Norfolk, Portsmouth and Virginia Beach all commented on the lack of information provided by JLARC and the misinterpretation of the initial funding amounts. Not knowing how the numbers were calculated left questions in their minds. All agreed that the VEA was opposed to JLARC primarily due to the lower salary averages computed using the l-estimator (personal communication, March 29, 1995, May 1, 1995, May 10, 1995, May 11, 1995).

8. The JLARC study did not review the funding of capital projects on the local level. In an interview with a JLARC staff member and as noted in one report, this study dealt only with the SOQ. Capital costs and debt service are not part of those standards. In the interviews with the school division administrators, the need for assistance from the State in capital projects was apparent. A study of the adequacy of funding cannot ignore one of the most expensive problems facing the school division and the locality.

In consideration of the four school divisions used as cases in this study, capital costs for fixing old buildings and building new ones is a major drain on both the school division operating budget and the city budget (personal communication, February 19, 1995, March 29, 1995, March 30, 1995, April 7, 1995, May 1, 1995, May 10, 1995, May 11, 1995). No funding is available from the State in these areas except for the lower rate on borrowing from the Literary Fund. Capital needs should have been a consideration in this study.
Recommendations for Further Research

There are many areas in school finance reviewed and studied from many different directions. When the research is further focused into specific funding formula questions in Virginia, much is left to be done. This study centered on the State funding to the school divisions of Chesapeake, Norfolk, Portsmouth and Virginia Beach. The conclusions reached in relation to the effects of JLARC on these urban school divisions offer more areas of study to be pursued.

Many factors influence spending at the local level. The impact of the changes in the State funding to the educational systems in these localities was only one item reflected in their budgets. The issues surrounding the local funding for each of the urban division here and across the State play a major part in providing for funding changes. These changes should provide a means to a more effective educational system for urban school divisions.

Funding for special education students has an impact on urban school divisions and the achievement in all other areas. It was noted in the work of Brazer and McCarty (1989) that the term "educational overburden" has evolved in recent years due to the many services within the school system that are competing for the dollars available in the budget. Special education funding and spending has become an influential part of the local school system budget. A study of its impact on urban divisions would be timely.

In direct relation to one of the conclusions of this study, the issue of capital needs for school divisions must be addressed. It is recommended that capital needs for Virginia school divisions should have been a part of the JLARC study due to the heavy weight of this item in
the budget of the locality. The influence of debt service in the city budget is becoming as much of an issue as the operating funds. Just as special education is a part of the educational overburden theory, so is capital needs funding. As it relates to planning and budgeting, it cannot be ignored by the State government and treated as a separate budget item. Tax dollars fund both operating and capital budgets.

The impact of JLARC on dollars provided to urban divisions is only one part of the evaluation necessary. How did JLARC’s changes affect the instructional program in Virginia? The concept of putting more money into a school division and expecting improvement to result must be proven by competent and reliable evaluation methods. If JLARC fully funded the Standards for the first time, it would be worthwhile to follow some key performance indicators of the students in the State to see if any improvements resulted from the change in funding.
References


City of Virginia Beach (1994). *Comprehensive annual financial report*. Virginia Beach, VA: City of Virginia Beach.


Virginia Education Association. (1994). The Virginia school funding formula is broken and it must be fixed. Richmond, VA: Virginia Education Association.


Appendix A

Interview Guides and Theme Coding Chart
Listed below are the questions used in the interviews held with individuals for this study. The first group of questions were used with school division personnel, the second group with staff members in the Virginia Department of Education, the Virginia Education Association, and a member of the House of Delegates, and the third set with a staff member of JLARC and a member of the governor's staff during the period that JLARC conducted the study.

Questions used with school division personnel:
1. Did your school division favor the recommendations of JLARC? Why or why not?
2. Did the recommendations from JLARC favor rural or urban school divisions? Explain.
3. What were the stated goals of JLARC? Do you think that there were underlying objectives not directly related to theses goals?
4. Did JLARC achieve its stated goals?
5. Why did the professional education associations oppose the JLARC recommendations?
6. Do urban school divisions in Virginia have unique fiscal demands as compared to non-urban divisions?
7. Should State funds for education be equalized?
8. Does the current funding methodology support taxpayer equity in Virginia? Why or why not?
9. How did the changes implemented by JLARC affect funding in most school divisions in Virginia?
10. How did JLARC communicate its recommendations to school divisions in Virginia prior to their adoption?
11. How did the implementation of JLARC affect the total State funding to public education—was more or less money dedicated to the K-12 program? Explain.

Questions asked to staff members in the Virginia Department of Education, the Virginia Education Association, and a member of the House of Delegates:

1. What key factors were used to shape the JLARC recommendations? Particularly important would be the weakness of the previous methodology and the issues of equity and equalization.

2. Many options were given consideration during the study. How were they evaluated by JLARC?

3. Were the JLARC recommendations effective? Why or why not?

4. What were the opinions of the localities toward the JLARC recommendations? Were the opinions of urban and non-urban divisions different?

5. How did the change in the method of computing funding for instructional personnel affect urban divisions? Was this different than the effect on non-urban divisions?

6. What specific directions were given to JLARC in the charge to assess the cost of the Standards of Quality?

7. What means did JLARC use to gather the data to reach the final conclusions? How much input was requested and received from other divisions?

8. Do you think the members of the General Assembly actually understood the nature of the changes that were approved with the adoption of the JLARC recommendations?

9. What purpose was served by changing the fringe benefit calculation?
10. Considering the theory of "municipal overburden", did JLARC give consideration to other factors affecting funding on the local level?
11. Was the "cost of competing" a political maneuver to win approval of the report?
12. What changes were implemented by the JLARC recommendations to State funding for pupil transportation? Was this beneficial for urban school divisions?
13. How do the effects of municipal overburden affect funding for public education?
14. How did the JLARC recommendations improve funding to localities for K-12 public education?

Questions used with a staff member of JLARC and a member of the governor’s staff during the period that JLARC conducted the study.

1. What were the stated goals of J-LARC? Do you think that there were underlying objectives behind the assignment given to J_LARC that were not directly related to these goals?
2. What key factors were used to shape the J-LARC recommendations? Particularly important would be the weakness of the previous methodology for funding public schools and the issues of equity and equalization.
3. Why did the professional education associations oppose the J-LARC recommendations? (Virginia Education Association, Virginia School Boards Association, Virginia Association of School Superintendents)
4. Should State funds for education be equalized?
5. Would you say most divisions in Virginia gained funding or lost funding by the change to the J-LARC methodology?
6. Did the implementation of J-LARC cost the State more funding than the formula used in previous years?
7. Did the recommendations from J-LARC favor rural or urban school divisions?
8. Do urban school divisions in Virginia have unique fiscal demands as compared to non-urban divisions?

9. Does the J-LARC funding methodology support taxpayer equity in Virginia? Why or why not?

10. Were the J-LARC recommendations clearly communicated to school divisions in Virginia when they were made public?

11. What were the opinions (in general) of the localities toward the J-LARC recommendations? Were the opinions of urban and non-urban divisions different?

12. Many options were given consideration during the study. How were they evaluated by J-LARC?

13. What means did J-LARC use to gather the data to reach the final conclusions? How much input was requested and received from other divisions?

14. Do you think the members of the General Assembly actually understood the nature of the changes that were approved with the adoption of the J-LARC recommendations?

15. Was the addition of the "cost of competing" clause for Northern Virginia a political maneuver to win approval of the report?

16. Did J-LARC achieve its stated goals?
Appendix B

Basic Education Standards for Instructional Staffing
### Basic Education Standards (Effective July 1, 1994)

#### Standards of Quality

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>Class Size Standards by Grade Level</th>
<th>Division Standards by Grade Level</th>
<th>Division Standards for English Classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kindergarten</td>
<td>25 (30 w/aide)</td>
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<td>n/a</td>
</tr>
<tr>
<td>Grade 1</td>
<td>30</td>
<td>24 to 1</td>
<td>n/a</td>
</tr>
<tr>
<td>Grade 2</td>
<td>30</td>
<td>25 to 1</td>
<td>n/a</td>
</tr>
<tr>
<td>Grade 3</td>
<td>30</td>
<td>25 to 1</td>
<td>n/a</td>
</tr>
<tr>
<td>Grade 4</td>
<td>35</td>
<td>25 to 1</td>
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</tr>
<tr>
<td>Grade 5</td>
<td>35</td>
<td>25 to 1</td>
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</tr>
<tr>
<td>Grade 6</td>
<td>35</td>
<td>25 to 1</td>
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<td>Grade 7</td>
<td>35</td>
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<td>24 to 1</td>
</tr>
<tr>
<td>Grade 8</td>
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<td>n/a</td>
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</tr>
<tr>
<td>Grade 9</td>
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<td>24 to 1</td>
</tr>
<tr>
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</tr>
<tr>
<td>Grade 11</td>
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<tr>
<td>Grade 12</td>
<td>n/a</td>
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#### Accreditation Standards

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>Teachers</th>
<th>Guidance Counselors</th>
<th>Librarian</th>
<th>Assistant Principal</th>
<th>Principal</th>
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<tr>
<td>K through Grade 6</td>
<td>n/a</td>
<td>.2 for each 100 students</td>
<td>&lt;300 = .5</td>
<td>&lt;600 = 0</td>
<td>&lt;300 = .5</td>
</tr>
<tr>
<td>Grades 7 and 8</td>
<td>25 to 1</td>
<td>.2 for each 80 students</td>
<td>&lt;100 = .5</td>
<td>&lt;600 = 0</td>
<td>&lt;300 = .5</td>
</tr>
<tr>
<td>Grades 9 through 12</td>
<td>25 to 1</td>
<td>.2 for each 35 students</td>
<td>&lt;300 = .5</td>
<td>&lt;600 = 0</td>
<td>&lt;300 = .5</td>
</tr>
</tbody>
</table>

Summary of Existing Standards Applied to Calculate Required Staffing

Schools are to offer a minimum of 3 hours of Kindergarten (from the Standards of Accreditation).

K-3 Classes are not to exceed 30 pupils, and if kindergarten classes exceed 25, an instructional aide must be assigned (from the codified SOQ).

Classes for Grades 4-7 in elementary schools are not to exceed 35 (Standards of Accreditation).

The ratio of pupils to teaching positions in grades K-6 is not to exceed 25 to 1 division-wide (codified SOQ).

Middle and secondary schools are not to exceed an overall ratio of 25 pupils per teacher (Standards of Accreditation).

Minimum staffing for principals, assistant principals, librarians, and guidance counselors are specified according to school size (Standards of Accreditation).

Handicapped students shall be provided a program of appropriate instruction acceptable to the Board of Education (codified SOQ). Class size standards for providing the appropriate instruction range from 6 to 18, depending on the handicap, or 8 to 145 for classes taught with the help of an instructional aide.

Vocational education programs are to be offered (codified SOQ). Maximum class size standards are set by the Vocational Education Management System (VEMS).

Additional instructional positions must be provided to meet the remedial needs of low-achieving pupils (codified SOQ).

Each School division shall offer differentiate instructional opportunities for identified gifted and talented students (codified SOQ). The Appropriations Act funds 1 instructional position for each 1000 pupils in ADM.

From: Joint Legislative Audit and Review Commission. (1988, January 26).

Funding the Standards of Quality, Part 2: SOQ Costs and Distribution

(Senate Document No. 25). Richmond, VA: Author, p. 29.
Appendix C

JLARC 2 Options
Summary of Option 1

1. 51 Basic, 57 total instructional positions as a floor, recognize required positions above 57 per 1000 ADM
2. Prevailing salary increased by 5.8% in each year to maintain position above median State
3. Cost of competing adjustment based on recognition of salary differentials for State employees
4. New pupil transportation cost method
5. Include costs of proposed Board of Education standards
6. Composite Index: population weighted 1/3, ADM 2/3
7. Basic Aid, Gifted and Talented, Special Education, Vocational Education, Remedial Education, and Pupil Transportation equalized with State share of 50 percent
8. Cap on local shares at 80 percent
9. No income adjustment in local share calculation
10. Distribution of sales tax on the basis of school-age population

Summary of Option 2

1. 51 Basic, 57 total instructional positions as a floor, recognize required positions above 57 per 1000 ADM

2. Prevailing salary increased by 5.8% in each year to maintain position above median State

3. Cost of competing adjustment based on recognition of salary differentials for State employees

4. New pupil transportation cost method

5. Include costs of proposed Board of Education standards

6. Composite Index: population weighted 1/3, ADM 2/3

7. Basic Aid, Gifted and Talented, Special Education, Vocational Education, Remedial Education, and Pupil Transportation equalized with State share of 52 percent in FY 1990

8. Instructional fringe benefits equalized with State share of 90-percent in FY 1990

9. Cap on local shares at 80 percent

10. No income adjustment in local share calculation

11. Distribution of sales tax on the basis of school-age population

Summary of Option 3

1. 51 Basic, 57 total instructional positions as a floor, recognize required positions above 57 per 1000 ADM

2. Prevailing salary increased by 5.8% in each year to maintain position above median State

3. Cost of competing adjustment based on recognition of salary differentials for State employees

4. New pupil transportation cost method

5. Include costs of proposed Board of Education standards

6. Local Revenue Index: population weighted 1/3, ADM 2/3

7. Basic Aid, Gifted and Talented, Special Education, Vocational Education, Remedial Education, and Pupil Transportation equalized with State share of 50 percent

8. Cap on local shares at 80 percent

9. No income adjustment in local share calculation

10. Distribution of sales tax on the basis of school-age population

Summary of Option 4

1. 51 Basic, 57 total instructional positions as a floor, recognize required positions above 57 per 1000 ADM

2. Prevailing salary increased by 5.8% in each year to maintain position above median State

3. Cost of competing adjustment based on recognition of salary differentials for State employees

4. New pupil transportation cost method

5. Include costs of proposed Board of Education standards

6. Local Revenue Index: population weighted 1/3, ADM 2/3

7. Basic Aid, Gifted and Talented, Special Education, Vocational Education, Remedial Education, and Pupil Transportation equalized with State share of 52 percent in FY 1990

8. Cap on local shares at 80 percent

9. No income adjustment in local share calculation

10. Distribution of sales tax on the basis of school-age population

Summary of Option 5

1. 51 Basic, 57 total instructional positions as a floor, recognize required positions above 57 per 1000 ADM
2. Prevailing salary increased by 5.8% in each year to maintain position above median State
3. Cost of competing adjustment based on recognition of salary differentials for State employees
4. New pupil transportation cost method
5. Include costs of proposed Board of Education standards
6. Local Revenue Index: population weighted 1/3, ADM 2/3
7. Basic Aid, Gifted and Talented, Special Education, Vocational Education, Remedial Education, and Pupil Transportation equalized with State share of 50 percent
8. Cap on local shares at 80 percent
9. Income adjustment used in local share calculation
10. Distribution of sales tax on the basis of school-age population


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Summary of Option 6

1. 51 Basic, 57 total instructional positions as a floor, recognize required positions above 57 per 1000 ADM

2. Prevailing salary increased by 5.8% in each year to maintain position above median State

3. Cost of competing adjustment based on recognition of salary differentials for State employees

4. New pupil transportation cost method

5. Include costs of proposed Board of Education standards

6. Equalized Effort Index

7. Basic Aid, Gifted and Talented, Special Education, Vocational Education, Remedial Education, and Pupil Transportation equalized with State share of 50 percent

8. Cap on local shares at 80 percent

9. No income adjustment in local share calculation

10. Distribution of sales tax on the basis of school-age population

Summary of Option 7

1. 51 Basic, 57 total instructional positions as a floor, recognize required positions above 57 per 1000 ADM

2. Prevailing salary increased by 5.8% in each year to maintain position above median State

3. Cost of competing adjustment based on recognition of salary differentials for State employees

4. New pupil transportation cost method

5. Include costs of proposed Board of Education standards

6. Equalized Effort Index

7. Basic Aid, Gifted and Talented, Special Education, Vocational Education, Remedial Education, and Pupil Transportation equalized with State share of 52 percent in FY 1990

8. Cap on local shares at 80 percent

9. Income adjustment used in local share calculation

10. Distribution of sales tax on the basis of school-age population