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I am submitting herewith a dissertation written by Charles Thomas Frye, Jr. entitled "An Analytical Study to Determine the Effectiveness of the Better Education Program in Equalizing Available Educational Opportunities in Select Tennessee Public Schools." I have examined the final copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Education, with a major in Leadership Studies in Education.

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An Analytical Study to Determine the Effectiveness of the Better Education Program in Equalizing Available Educational Opportunities in Select Tennessee Public Schools

A Dissertation

Presented for the

Doctor of Education

Degree

The University of Tennessee, Knoxville

Charles Thomas Frye, Jr

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DEDICATION

This dissertation is dedicated to my wife, Kim Frye. Without your understanding, encouragement, and clerical skills, I would not have even been able to start such a Herculean task, let alone finish.

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I would like to express my deepest appreciation to my major professor, Dr. George W. Harris, Jr. Without his nurturing, prodding, boundless energy and encouragement, this study would not have been completed.

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ABSTRACT

The financing of public education has been altered by several important lawsuits during the last twenty-five years. In July, 1988 approximately one-half of the school systems in Tennessee filed the *Tennessee Small School Systems vs. McWherter* lawsuit. As a result of this lawsuit, the State of Tennessee revised its method of funding education by creating the Better Education Program (BEP).

The purpose of this study was to evaluate the effectiveness of the Better Education Program in equalizing available educational opportunities in select Tennessee public schools. The population of this study consisted of 35 school systems selected from a stratified random sample of all 139 school systems in Tennessee.

Data were collected from two areas. First, teacher salaries were examined for the 1988-89 and 1994-95 school years. This represented data three years prior and three years after the implementation of the BEP. The second phase of the study examined the spending patterns of the selected

school systems regarding the use of BEP funds for classroom versus nonclassroom uses. Teacher data were collected at the BA no experience and the MA maximum experience for both school years. This represented new teachers and highly experienced teachers. Next, mean salaries were calculated for all the school systems in the study group. Statewide mean salaries for systems in the study group were calculated to be:

1988-89		1994-95	
BA Min	MA Max	BA Min	MA Max
17,936	24,967	22,807	31,569

Schools were then categorized as wealthier or poorer based on fiscal capacity using the Tennessee Advisory Commission on Intergovernmental Relations (TACIR) index. Each school system's salary data were then compared to the statewide means. Wealthier school systems typically paid salaries above the mean, while poorer schools paid below the mean. The following salary gaps were calculated between wealthier and poorer school systems:

	1988-89		1994-95	
Salary Gap	BA Min	MA Max	BA Min	MA Max
	$756	$2,101	$995	$2,703

A Fisher Median Sign Test was used to show that the salary gap had increased but not at a significant level. The Fisher Median Sign Test compares two correlated samples using a null hypothesis that the median difference between the pairs is zero.

An analysis of BEP spending patterns revealed that wealthier schools spent 14% more of their BEP funds in the classroom than poorer school systems in the study group. A Pearson Correlation scatterplot revealed a strong negative correlation (-0.712) between the amount of BEP funds received per student and the percent of BEP funds spent in the classroom. The Pearson product-moment correlation coefficient is a statistic of the interval-ratio type that is used to predict the degree or magnitude of the relation between two variables. Overall, it appeared that school systems

spent their BEP funds primarily to meet perceived local needs.

The study revealed a variety of strengths of the BEP, as well as some weaknesses. The major strength of the BEP is that funding for education in Tennessee has significantly increased with 67% of all funding coming from the State. The major weakness of the BEP was its initial failure to address the issue of unequal teacher pay.

Several conclusions were reached upon completion of the study:

1. The BEP has increased the amount of funds available for education in Tennessee;

2. The BEP did not shift funds from wealthier to poorer school districts as was initially feared;

3. The BEP is now attempting to equalize teacher pay statewide by using salary equity funds; and

4. School systems spend their BEP funds differently, based primarily on perceived local needs.

This study concluded with several recommendations for further research regarding educational finance reform.

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CHAPTER I

OVERVIEW OF THE STUDY

Statement of the Problem

Introduction

In 1987, state and local funding for Tennessee public school students ranged from $1,823 to $3,669 (Martin, 1994). Many school systems ran short of funds and could not provide basic services such as busing or the purchase of new textbooks. Out of this financial crisis and spending disparity, arose the *Tennessee Small School Systems v. McWherter* lawsuit.

The number of school districts reported to be in the plaintiff group, while ranging from 66 to 78, represented about half of the State's 139 school districts. The remaining plaintiffs included superintendents, school board members, students, parents and taxpayers of eight rural counties (Crockett, Wayne, Hickman, Trousdale, Pickett, Overton, Grundy and Hancock

counties). Intervening as defendants were nine urban and suburban school systems, among them Shelby, Davidson, and Knox counties (*Tennessee Small School Systems v. McWherter*, 1993).

A constitutional law review written by Karen Martin of the University of Memphis, described the basis for the lawsuit in this manner:

> Disturbed by the funding disparities between school districts across Tennessee, an unincorporated association of school districts (the Tennessee Small School Systems), school officials, students, and parents, filed a lawsuit in 1988 against the Governor and state officials alleging that the State's educational financing system violated the equal protection provisions of the Tennessee Constitution. Attempts to promote equality among the districts by allocating additional monies were unsuccessful and disparities in funding and educational opportunities persisted. The plaintiffs claimed the funding formula and resulting disparities in available educational opportunities violated article XI, section 8 and article I, section 8 of the Tennessee Constitution, the State's equal protection provisions, and article XI, section 12, the State's provision guaranteeing educational opportunities (Martin 1994, pgs 393-394).

Tennessee Constitution

article XI : Miscellaneous Provisions

> Section 8. The Legislature shall have no power to suspend any general law for the benefit of any particular individual, nor to pass any law for the benefit if individuals inconsistent with the general laws of the land; nor to pass any law granting to any individual or individuals, rights, privileges, immunitie [immunities,] or exemptions other than such as

may be, by the same law extended to any member of the community, who may be able to bring himself within the provision of such law. No corporation shall be created or its powers increased or diminished by special laws but the General Assembly shall provide by general laws for the organization of all corporations, hereafter created, which laws may, at nay time, be altered or repealed, and no such alteration or repeal shall interfere with or divest rights which have become vested.

article XI : Miscellaneous Provisions.

Section 12. The State of Tennessee recognizes the inherent value of education and encourages its support. The General Assembly shall provide for the maintenance, support and eligibility standards of a system of free public schools. The General Assembly may establish and support such post-secondary educational institutions, including public institution of higher learning as it determines.

article I : Declaration of Rights.

Section 8. That no man shall be taken or imprisoned, or disseized of his freehold, liberties or privileges, or outlawed, or exiled, or in any manner destroyed or deprived of his life, liberty or property, but by the judgement of his peers, or the law of the land (Tennessee Blue Book, 1990).

Background of the Problem

The original complaint in this case was filed on July 7, 1988. The complaint alleged that the Tennessee Constitution required the General

Assembly to maintain and support a system of free public schools, and established a fundamental right to an adequate free education.

The students in the lawsuit, however, were being deprived of this fundamental right. Secondly, the complaint alleged that the funding system violated the equal protection provision of the Tennessee Constitution because the system resulted in inequalities in the provision of educational opportunities. Finally, the complaint asked that the state be required to formulate and establish a funding system that met constitutional standards.

The defendants responded to the complaint by arguing that the Tennessee Constitution offered no enforceable qualitative standards which the courts could use to assess the quality of education and the adequacy of funding. Next, the defendants asserted that the education clause guaranteed only access to a free public school meeting only the minimum standards established by regulations entitled "Rules, Regulations and Minimum Standards for the Governance of Public Schools in Tennessee." Their third objection to the lawsuit proposed that the funding scheme for education enacted by the General assembly should not be subjected to review by the

courts. Finally, the larger school systems alleged that they did not want the funding scheme which favored their systems disturbed. They argued further that the less affluent school systems had not made their best efforts to locally raise the additional money needed for schools.

After a six-week trial in the fall of 1990, the trial court found that the funding system violated the equal protection provisions of the state constitution and entered a declaratory judgement for the plaintiffs. The Court of Appeals of Tennessee reversed the judgement and dismissed the case. The Tennessee Supreme Court held, reversed. The Supreme Court held that:

1. Constitutionality of state school funding scheme was a justiciable question,

2. Clause of State Constitution guaranteeing education provided enforceable standard,

3. Local control of public schools was not rational basis needed to justify disparate educational opportunities provided under state funding scheme (*Tennessee Small School Systems v. McWherter*, 1993).

The court record consisted of more than 4,500 pages of transcripts, 18 depositions, 152 exhibits, and contained the testimony of several state officials and county superintendents. Key findings of fact included:

1. that the statutory funding scheme had produced a great disparity in the revenues available to local school districts,

2. because of lack of fiscal capacity, there is little poorer school districts can do to offset county sales tax disparities,

3. per classroom spending varied in 1988-89 from $110,727 in Kingsport to $49,167 in Lewis County,

4. the wide disparity is related to differences in fiscal capacity and not inadequate local effort,

5. poorer school districts offer less curriculum choices to their students than wealthier districts,

6. poorer school districts fail in their efforts to retain teachers,

7. a direct correlation exists between dollars expended and the quality of education a student receives, and

8. some of the poorer school districts cannot comply with the State's minimum standards because of inadequate funding.

In early 1992, before the conclusion of the Tennessee Small School Systems lawsuit in March 1993, the Tennessee General Assembly overhauled the State's education funding system. House Bill number 752 was named the Education Improvement Act, and created the Better Education Program (BEP). The BEP funding formula was designed to decrease the disparity of

funding available to local school systems. Major innovations under the new formula included:

a. greater equalization of the local share of school funds;

b. fiscal capacity calculations based on sales tax base, property tax base, and income as opposed to just property tax base as under the old funding system, and

c. the BEP formula factors in differences in competitive salaries earned in different counties (*Tennessee Small School Systems v. McWherter*, 1993).

The BEP increased the state's share of educational funding from forty-five percent to sixty-seven percent. Using this new ratio, the state estimated increased spending for education to be $287 million in fiscal year 1992, $389 million in fiscal year 1993, $500 million in fiscal year 1994, $618 million in fiscal year 1995, and $664 million is fiscal year 1996. In the 1993-94 school year, 82.3% of the BEP was funded by the state legislature. In the 1994-95 school year, BEP funding rose to 88.7%, while 1995-96 estimates place the BEP funding at approximately 91.5% (21st Century Schools Report Card, 1995).

A key element of the BEP was the development of the Tennessee

Advisory Commission on Intergovernmental Relations (TACIR) index (Green, 1990). This index was used to measure the fiscal capacity, or the potential ability, of local governments to raise revenues from their own sources. Once the fiscal capacity for a county is calculated, a formula is used to calculate each school systems share of BEP funds based on average daily attendance.

As part of the BEP program, each school system is required to file a BEP Accountability Budget Summary every fiscal year. This budget summary is part of each school systems 21st Century Schools Report Card which is distributed by the Tennessee Department of Education. The report card supplement also includes the Tennessee Value Added Assessment System (TVAAS) report, Tennessee Comprehensive Assessment Program (TCAP) scores, August /Accountability Report, and the State Audit Report for all 139 local school systems in Tennessee (21st Century School Report Cards, 1994). The TVAAS report can be used to evaluate the performance of individual teachers, schools, and school systems. TCAP scores measure how well students are mastering basic math and language skills. The

Accountability and State Audit Reports are used to evaluate the accounting procedures used by school systems.

The Problem

Tennessee was one of several states enacting education reform legislation in the 1990's. The Better Education Program was created by the Education Improvement Act of 1992 and attempted to address inequities in the funding of local school systems. An analytical assessment of BEP's impact on equalizing available educational opportunities in select public schools had not been completed since its inception in March, 1992. A quantitative analysis of the effectiveness of the BEP in equalizing teacher salaries and in examing how local school systems spend their additional BEP funds was needed to support this study.

Purpose of the Study

House Bill number 752, the Education Improvement Act, was enacted on March 2, 1992 and created the Better Education Program (BEP). The

purpose of this study was to evaluate the effectiveness of the BEP in equalizing available educational opportunities in select Tennessee wealthy and poor public schools. Two key areas that were analyzed were teacher salaries and BEP spending patterns. Teacher salaries were compared three years prior to the BEP (1988-89), and three years after its inception (1994-95), to see if the salary gap between wealthier and poorer school districts had been closed. School spending patterns were evaluated to see if any significant differences existed regarding how wealthier and poorer school districts utilize their BEP funds for classroom and nonclassroom expenditures. The variables in the study included changes in teacher salaries, and the spending of BEP funds for classroom and nonclassroom items.

Significance of the Study

The creation of the BEP in 1992 impacted every teacher, student, and administrator in the state of Tennessee by changing the state's educational funding formula. An evaluation of the effectiveness of the BEP therefore, provides objective information to educators and legislatures as they continue

to improve the quality of public education throughout the state of Tennessee.

This research study focused on the impact of BEP funds on equalizing educational opportunities in Tennessee's public schools. Valuable data were produced on how schools are utilizing their BEP funds. Areas explored in this study included nationwide reform of educational funding, statewide efforts to reform educational funding in Tennessee, and how to measure the effectiveness of the BEP. This data have a direct application to local school systems who are attempting to improve their educational programs. Also, this study may be beneficial to other States who are revamping their method of funding public education. Other areas of significance that were produced by this study included:

1. data regarding teacher salaries in Tennessee;
2. differences in local spending of classroom and non-classroom funds;
3. a brief history of the Tennessee Small Systems lawsuit; and
4. a study of the TACIR Index and its role in the distribution of BEP funds.

The Research Questions

Data were collected concerning teacher salaries for selected public school systems in Tennessee based on pay schedules released by the Tennessee Education Association (TEA) for the school years 1988-89 and 1994-95. BEP Accountability Budget Summaries for the fiscal year 1994-95 were used to compare how selected public school systems were utilizing BEP funds for classroom and non-classroom expenditures. The questions to be answered were:

Question One:

Has the Better Education Program resulted in more funds being allocated for educational programs in Tennessee's public schools?

Question Two:

Has the Better Education Program been effective in reducing the salary gap between teachers from wealthier and poorer school districts?

Question Three:

Do wealthier and poorer school districts utilize their Better Education Program funds differently or in a similar manner?

Question Four:

What are the strengths and weaknesses of the Better Education Program?

Definition of Terms

Several important terms are defined to show their relationship to this study.

Better Education Program (BEP)

As used in this study, the BEP was created by the Education Improvement Act as part of Tennessee House Bill number 752 on March 2, 1992. This program was designed to develop and adopt policies, formulas, and guidelines for the fair and equitable distribution and use of public funds among public schools.

Classroom Expenditures

As used in this study, all Tennessee public schools are required to provide an itemized accounting of their BEP funds spent for classroom

expenditures. Approved items for classroom expenditures include: teacher salaries and associated benefits, teacher assistants salaries and associated benefits, textbooks, library books, inservice training, instructional supplies and materials, and technology such as computers.

Education Improvement Act

As used in this study, Tennessee House Bill number 752 was passed on March 2, 1992 and was named the Education Improvement Act. This act created the Better Education Program (BEP), and was a direct response to the *Tennessee Small School Systems v. McWherter* lawsuit.

Nonclassroom Expenditure

As used in this study, all Tennessee public schools are required to provide an itemized accounting of their BEP funds spent for nonclassroom expenditures. Approved items for nonclassroom expenditures include: building construction or improvements, transportation equipment, secretaries, utilities, custodians, or administrative expenses.

Tennessee Advisory Commission on Intergovernmental Relations (TACIR) Index

As used in this study, the TACIR index was created in 1990 as a method of estimating fiscal capacity of local governments for funding education. The TACIR index is based on the modern definition of fiscal capacity, which is defined as the potential ability of local governments (or school systems) to raise revenues from their own sources, relative to the cost of their service responsibilities. This definition relates fiscal capacity to fiscal needs.

Wealthier vs Poorer School Systems

As used in this study, the most important characteristic that makes a local school system wealthier or poor is its ability to raise revenues from its own sources. The TACIR index ranks all 95 counties in Tennessee based on their fiscal capacity. In this study, school systems located in the top rated forty-eight counties are designated as wealthier school systems, while school systems located in the bottom rated forty-seven counties are designated as

poorer school systems. No school districts in Tennessee should be designated as rich districts. For example, the lowest funded school districts in neighboring Virginia exceed the highest funded school districts in Tennessee.

Tennessee Small School Systems v. McWherter lawsuit

As used in this study, the *Tennessee Small School Systems v. McWherter* lawsuit originated on July 7, 1988 when approximately one-half of the small school systems in Tennessee filed a complaint alleging that the current system of funding public education failed to meet constitutional standards. After a six-week trial in the fall of 1990, the trial court found that the funding systems violated the equal protection provisions of the state constitution and entered a declaratory judgement for the plaintiffs. The Court of Appeals of Tennessee reversed the judgement and dismissed the case. The Tennessee Supreme Court held and reversed back to the original judgement. Anticipating the court's decision, the Tennessee legislature created the new BEP funding scheme with the passage of the Education Improvement Act, almost one year before the end of the trial.

21st Century Schools Report Cards

As used in this study, the 21st Century Schools Report Card is a reporting method developed by the Tennessee Department of Education to publicize a local school system's performance indicators. Areas included on the report card are progress indicators, personnel, expenditures and funding, local education fiscal capacity, and 21st century schools program funding.

WFTEADA

As used in this study, weighted full time equivalent average daily attendance. Public school systems receive most of their state funding based on average daily attendance.

Procedures and Data Analysis

Introduction

Research concerning the Better Education Program is limited. Teacher

salaries and the expenditure of BEP funds are two areas of the program that can produce data to be used to evaluate the effectiveness of the BEP.

The Population

The population selected for study was the 139 public school systems in Tennessee.

The Stratified Sample

Twenty-five percent of the original population were selected for in-depth study in proportion to the actual numbers of city and county school systems found in the three grand divisions (East, Middle, and West) of Tennessee.

Specific Procedures and Data Collection

For the purpose of this study, two specific instruments were used for the collection of data. First, the Tennessee Education Associations annual reporting of teacher's salaries were used for the 1988-89 and 1994-95 school

years. Salary data found in the TEA News included salary scales from all 139 public school systems in Tennessee in four categories: B.A. degree with no experience, B.A. degree with 15 years experience, M.A. with no experience, and M.A. degree with 15 years experience. For this study, the salaries for B.A. degree with no experience and M.A. degree with 15 years experience were chosen for comparison because they represented the high and low end of local pay scales. Salary data from 1988-89 were selected to represent salaries three years before the BEP, while 1994-95 salary data represented salary data three years after the creation of the BEP.

The second phase of the study centered on how local school systems utilized their BEP funds for classroom and nonclassroom expenditures. Data for this portion of the study were compiled from the BEP Accountability Budget Summary for fiscal year 1994-95, that each local system files with the Tennessee Department of Education, and is included on each school system's 21st Century Schools Report Card. Line-item listings were examined to identify general categories of BEP fund expenditures. Also, a comparison was made of the percent of funds utilized for classroom and

nonclassroom expenditures. The same 35 local school systems, selected by a stratified random sample, were used in both studies.

Data Analysis

This study is descriptive in nature. Salary data were analyzed in two ways. Mean scores were determined for each salary category in the study. Next, each school system's salary was compared to the mean salary and determined to be above the mean (+), or below the mean salary (-). The average deviation for wealthier and poorer schools were then compared to calculate a salary gap.

BEP spending patterns were also analyzed using expenditures for classroom and nonclassroom items. The percent of money spent on classroom or nonclassroom items was compared to see if significant differences were occurring in the expenditure of funds by wealthier and poorer school districts.

Assumptions, Limitations and Delimitations of the Study

The state of Tennessee is uniquely separated into three grand divisions East, Middle, and West Tennessee. Public school systems are comprised of 94 county and 45 city or special school districts. Gibson County in West Tennessee, is the only county served by all city or special school districts, with no county school system. All school systems were categorized according to location (grand division) and type (city and county). A stratified random sample was utilized to ensure that approximately 25% of all the school systems from each category was included in both studies. Areas studied were teacher salaries and the spending of BEP funds for classroom and nonclassroom expenditures.

The study was limited in several ways. Only salary data and BEP spending patterns were examined in evaluating the effectiveness of the BEP. Also, local school systems are given the ability to choose how they utilize their BEP funds based on perceived local needs which may differ dramatically statewide. Finally, Knox County, Davidson Metro, Memphis City, and Shelby Counties schools were included in the study because they

are the largest school systems in Tennessee, and because they were the original defendants in the *Small Schools vs. McWherter* lawsuit.

Organization of the Study

The study is organized into five chapters. Chapter I includes an introduction, background of the problem, definitive problem statement, purpose of the study, significance of the study, and research questions. A definition of key terms are also included.

Chapter I concludes with the procedures and data analysis, and its assumptions, limitation, and delimitations.

Chapter II provides a review of literature concerning the history of educational reform in the U.S. as well as literature concerning funding reform for public schools. Finally, the review includes literature relating specifically to lawsuits involving challenges to the funding scheme for selected states.

Chapter III examines the methods and procedures used to conduct this study. Chapter IV includes a presentation of data and findings of the study.

Chapter V contains a summary of findings, conclusion, discussions, and recommendations.

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

During the past two hundred years, national, state, and local political attention has focused on the purpose of public education in the United States. Even before this debate ended, a different but equally important question arose. How should we pay for public education in the United States? Today, the question raised may include who should pay for public education. The financing of education is such a hotly debated issue that litigation has surfaced in many states to challenge the equity of their educational funding formula. A central component of this study was the *Tennessee Small School Systems v. McWherter*(1993) lawsuit which led to a revamping of the method for educational funding in Tennessee and the creation of the Better Education Program (BEP).

The purpose of this study was to determine the effectiveness of the

Better Education Program in equalizing available educational opportunities in select Tennessee public schools.

This chapter contains three major sections: first, a historical perspective on the purposes of public education in the United States; second, a review of literature addressing paying for public education, and; finally, a review of the courts and school finance lawsuits.

The Purpose of Public Education

Public schools are one of the central and most controversial institutions of American society. Available quality schools often determines where we live, work, and what local politicians we support. A major source of controversy is the question of what the purposes of public schooling should be (Spring, 1991). Spring alleged that government-operated schools have the responsibility of carrying out the wishes of the general public and not those of private individuals. In A Place Called School, John Goodlad identified a major difference in private and public goals for education. Goodlad's dominant public goals for education were economic, while the dominant

private goals were academic skills and knowledge. According to Spring (1991), "the most important political goals of public schooling are educating citizens, selecting future political leaders, creating a political consensus, maintaining political power, and socializing individuals for political systems. The major social purposes of education are social control, improving social conditions, and reducing social tensions caused by economic inequalities. The most important arguments given for the support of public schooling are that education increases national wealth and advances technological development."

Several studies in the 1980's strongly advocated a need to reform education in the United States for solely economic purposes. In 1983, the National Commission on Excellence in Education issued a report, A Nation At Risk that rocked the framework of public education. It declared: "If only to keep and improve on the slim competitive edge we still retain in world markets, we must rededicate ourselves to the reform of the educational system for the benefit of all .... if an unfriendly foreign power had attempted to impose on America the mediocre educational performance that exists

today, we might well have viewed it as an act of war." In his 1990 State of the Union address, George Bush proclaimed "The nation will not accept anything less than excellence in education." For the first time in American history, President Bush announced a set of national education goals to be reached by the year 2000. Bush's goals embraced many of the major purposes for establishing public schools in America. The goals were established in a joint effort by the Bush administration and the National Governors Association. The six goals to be reached by the year 2000 are:

1. all children will start school ready to learn;
2. high school graduation rate will be at least 90 percent;
3. students will demonstrate competence in critical subjects;
4. U.S. students will be the first in the world in math and science achievement;
5. every adult will be literate and have skills to compete in the economy;
6. schools will be fee of drugs and violence (Spring, 1991).

The Clinton Administration added the following goals to the Goals 2000 program:

1. Develop a more challenging curriculum and assist student progress at each grade level.

2. Enhance teacher education and professional development.

3. Promote literacy and a life-long learning environment.

4. Increase family and community involvement and support for education (TEA News, April 1996).

Paying for Public Education

In 1988, approximately $170 billion was spent to educate an estimated 41 million children in public schools. Over 3 million teachers and administrators served the public school population (Guthrie, Garms, and Pierce, 1988). This huge enterprise is primarily controlled by the individual states with very little federal influences. Amendment X of the United States Constitution states,

> "The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people."

The Federal role in education is, therefore, limited to grants, lawsuits, and national policy such as the Goals 2000 plan.

Much of the funding of public education is assumed by the individual states, with additional funds being provided by local governments (or school systems). Diversity among school districts is particularly noticeable when the national financing trends for public schools are compared. A 1987 survey revealed that revenues per pupil ranged from a high of $8,871 in Alaska to a low of $2,455 in Mississippi. In New Hampshire local districts contributed over 91% of the funding for public schools, while in Hawaii the state government provided over 90% of the school funds. The survey also pointed out a great disparity in average teacher salaries, ranging from a high of $42,063 in Alaska to a low of $18,781 in South Dakota (National Education Association, 1987).

In the United States, public school policy sought to hold three values rooted in our culture: equality, liberty, and efficiency. In financing public schools, states have focused on equity, adequate provision, and efficiency of education. Choice is only a minor concern. (Guthrie, Garms and Pierce,

1988). Equity is more commonly called equality of educational opportunity. Spring (1991) says that "equality of opportunity means that all members of a society are given equal chances to enter any occupation or social class. It does not mean that everyone will have equal incomes and equal status; rather, all have an equal chance to compete for any place in society."

Public schools reliance on property taxes as a primary funding source, however, has produced a great disparity in the revenues available for financing local public schools. States have developed three distinct philosophies to equalize the wealth among local school districts. The first, minimum provision, assumes that the state should provide all children a basic minimum education. Local school districts can then provide additional funding as they see fit through local tax efforts. Flat grants and foundation programs are used to fund this minimum provision philosophy (Cubberley, 1906). The Tennessee Foundation Program was a classic example of this philosophy, and is being replaced by the Better Education Program.

The second philosophical position, equal access, is that states should provide equal access to money for education, while letting each district

decide how much education to provide. Financial schemes for the equal access philosophy have been called percentage equalizing, power equalizing, and the guaranteed tax base (Benson, 1961; and Coons, Clune, and Sugarman, 1970).

The third philosophical position, full state funding, is that the state should provide and finance an equal education for all students. Full state funding occurs only in Hawaii, while Florida and New Mexico both have foundation programs that require very little local funding (Morrison, 1930; and Wise, 1967).

A recent national trend is that states are playing an increased role in financing local public schools. This trend is marked by an increasing number of state court decisions that existing systems of educational funding, typically foundation programs, provide unequal educational opportunities.

The Courts and School Finance

In 1868, the Fourteenth Amendment to the United States Constitution was adopted as one of three constitutional amendments intended to free the

slaves.

Amendment 14

> Section 1. All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the State wherein they reside. No state shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws.

It stretched the mantle of the first ten amendments to protect the civil liberties of private citizens from state encroachment (LaMorte, 1974). The Fourteenth Amendment contains two important clauses which provide federal authority over education, (and other general welfare matters), the due process clause and the equal protection clause.

In 1954, the U.S. Supreme Court issued a school desegregation decision that overturned the "separate but equal" doctrine (*Brown v. Board of Education*, 1954). In *Brown v. Board of Education* the Court stated:

> We conclude that in the field of public education the doctrine of "separate but equal" has no place. Separate educational facilities are inherently unequal. Therefore, we hold that the plaintiffs and others similarly situated for whom the actions are brought are, by reason of the segregation complained of, deprived of the equal protection of the

laws guaranteed by the Fourteenth Amendments. The equal protection clause has also been used as a constitutional challenge to school finance programs in many of the fifty states.

The Fourteenth Amendment's due process clause states, "nor shall any State deprive any person of life, liberty, or property, without the due process of law." The federal government uses this clause to influence public education. The due process clause must be balanced by society's need to protect itself. Court rulings have established a limitation regarding what can be taught in public schools. According to Morphet, Johns, and Reller (1982), "those who insist that the federal government should have no control whatsoever over the curriculum of public schools seem to be unaware of the inherent police powers of the federal government relating to matters of national concern."

During the 1950's and 1960's, public education grew rapidly as enrollments peaked throughout the United States. Swelling enrollments created tremendous financial problems in the 1970's as revenues became limited. Conflicts arose over how much and where to cut local school

budgets. Davis (1962) stated that "political theorists have observed that revolutions are most likely to occur when rising expectations, fostered during a prolonged period of growth, suddenly become unrealizable because of an economic downturn." When public education's period of growth ended, due to declining enrollment and increasing voter resistance to budget increases, conflicts arose for scarce educational dollars.

Since states are legally responsible for schools, the conflicts over educational finance soon reached state legislatures. Pressure on legislatures first came from educators seeking new funding for schools, and then from taxpayers wanting reduced property taxes. School financing soon became a key issue in attempts to restructure taxes. Reduced educational expenditures soon highlighted inequalities in the funding programs for public schools. Property - poor districts soon realized they were paying higher taxes and receiving less funds than property - rich districts. A series of legal challenges to the constitutionality of state funding methods soon followed. In California, Minnesota, Mississippi, Texas, New Jersey, Wyoming, Kansas, Connecticut, Idaho, Georgia, Kentucky, and recently Tennessee, judges held

that existing finance arrangements violated the equal protection clauses in state constitutions.

One of the earliest decisions in an equal protection suit occurred in 1969. In *McInnis v. Ogilvie*, children from a property - poor Illinois school district requested that public school revenues be redistributed in proportion to student needs. The court ruled against the plaintiff saying that no standards could be developed to make the decision judicially manageable. The courts affirmed equality as an abstract value but refused to accept equal treatment or equal outcomes as definitions of educational equality.

In 1971, a landmark court case in California represented the first time the equal protection clause of the United State Constitution's Fourteenth Amendment was used to declare a state's school finance method unconstitutional (*Serrano v. Priest*, 1971). In the case, the California Supreme Court ruled that financial disparities between school districts made the quality of a child's education dependent on the wealth of the school district. The California Supreme Court stated: "We have determined that this funding scheme invidiously discriminates against the poor because it

makes the quality of a child's education a function of the wealth of his parents and his neighbors." *Serrano v. Priest* was a landmark decision for state court systems.

When the educational funding issue reached the U.S. Supreme Court in 1973, a major setback occurred. In *Rodriguez v. San Antonio Independent School District*, the Supreme Court ruled that the right to an education was not implicitly protected by the Fourteenth Amendment and was not entitled to constitutional protection. The Supreme Court declared: "The consideration and initiation of fundamental reforms with respect to state taxation and education are matters reserved for the legislative processes of the various states." The *Rodriguez* decision sent all challenges to the various states' methods of financing public schools back to the state courts, to be argued in terms of each state's constitution. In many states a long struggle soon ensued to achieve a more equitable method of providing equal financial support to all public schools.

Five weeks following the United States Supreme Court's decision in Rodriguez, school finance reformers were elated with the New Jersey

Supreme Court ruling in *Robinson v. Cahill* (1973). This decision declared New Jersey's revenue distribution formula to be in violation of the state constitution's education clause. This clause called for the legislature to provide a "thorough and efficient" system of education (New Jersey Constitution, Article VII, Section 4, paragraph i). The New Jersey Supreme Court also ruled for the legislature to redefine and comply with the constitutional directive "thorough and efficient."

The case is important for two reasons. First, it showed that school finance reform could still take place at the state level on constitutional grounds, even though the national reform effort had been closed by the decision in Rodriguez. Next, the *Robinson v. Cahill* ruling demonstrated that a victory in court did not always lead to immediate legislative action. The New Jersey legislature proposed raising taxes or cutting costs in high-spending school districts. Both actions proved to be so unpopular with voters, that no measures were enacted to achieve greater equity. Finally, the New Jersey Supreme Court temporarily closed public schools in order to force legislative compliance with its ruling (Lehne, 1978). By 1986, school

finance reform in New Jersey was being pursued again in the state courts (*Abbott v. Burke*, 1986).

In 1986, the United States Supreme Court issued a decision that curtailed the scope of *Rodriguez v. San Antonio*. In *Papasan v. Allain*, a Mississippi case, the Court reaffirmed that there was no equal protection mandate to redistribute local property tax revenues. However, the equal protection mandate could apply to distribution of state education funds in an equitable manner. If sufficient cause is presented, then states may have to distribute state funds in an equitable manner.

Several important school finance reform cases from southeastern states appeared in state courts in the 1980's. In the state of Georgia, the case of *McDaniel v. Thomas* (1981) challenged the Adequate Program for Education in Georgia (APEG) for failing to ensure the pledge of equal protection and adequate education found in the state's constitution. APEG was the foundation program that supplied the state's share of funding for public school systems. The Georgia Supreme Court supported APEG, but warned the Georgia Legislature that the disparity in educational funding between rich

and poor school districts had to be addressed. In 1985, the Georgia legislature unanimously passed the Quality Basic Education Act (QBE). The QBE program in Georgia attempted to tie educational finance reform to school performance.

In Kentucky, the *Rose v. Council For Better Education* lawsuit in 1988 challenged the constitutionality of the state's Minimum Foundation Program and Power Equalization Program. The trial judge identified four major issues:

1. The necessity for defining the phrase "an efficient system of common schools" as contained in Section 183 of the Kentucky Constitution;

2. Whether education is a "fundamental right" under our Constitution;

3. Whether Kentucky's current method of financing its common schools violates Section 183, and

4. Whether students in so-called "poor" school districts are denied equal protection of the laws.

In its judgement, the trial court ruled:

1. The Kentucky finance "system" of its common schools is unconstitutional and discriminatory; and

2. The system of common schools is not efficient within the perview of Section 183 of the Kentucky Constitution.

In his Findings of Fact the judge defined an "efficient" system of schools as "a tax supported, coordinated organization, which provides a free, adequate education to all students throughout the state, regardless of geographical location or local fiscal resources." He opined that an efficient system (of schools) must have "substantial" uniformity. Also, the trial court clearly stated that the duty-the absolute, unequivocal duty-to provide this system is solely the responsibility of the General Assembly. In addition, "substantial additional monies" will have to be raised to provide this constitutional school system. Finally, the trial court postulated that the imposition of new taxes appeared to be the only viable alternative.

Following the decision, the Kentucky General Assembly set out to recreate and redesign a new statewide system of common schools. The cornerstone of this new common school was the definition of the essential, and minimal characteristics of an "efficient" system. These characteristics may be summarized as follows:

1. The establishment, maintenance and funding of common schools in Kentucky is the sole responsibility of the General Assembly.

2. Common schools shall be free to all.

3. Common schools shall be available to all Kentucky children.

4. Common schools shall be substantially uniform throughout the state.

5. Common schools shall provide equal educational opportunities to all Kentucky children, regardless of place of residence or economic circumstances.

6. Common schools shall be monitored by the General Assembly to assure that they are operated with no waste, no duplication, no mismanagement, and with no political influence.

7. The premise for the existence of common schools is that all children in Kentucky have a constitutional right to an adequate education.

8. The General Assembly shall provide funding which is sufficient to provide each child in Kentucky an adequate education.

9. An adequate education is one which has as its goal the development of the seven capacities recited previously.

Tennessee Small School Systems v. McWherter

On July 7, 1988, approximately one-half of the school systems in Tennessee filed the *Tennessee Small School Systems v. McWherter* lawsuit. Their complaint alleged that article XI, Section 12 of the Tennessee Constitution which requires that the General Assembly maintain and support a system of free public schools, establishes a fundamental right to an adequate free education and that the defendants are depriving the students of this fundamental right. Additional charges included that the funding system violates the equal protection provisions of the Tennessee Constitution because the system results in inequalities in the provision of educational opportunities. Finally, the complaint asked that the state be required to formulate and establish a funding system that meets constitutional standards.

The defendants responded that Article XI, Section 12 of the Tennessee Constitution "offers no enforceable qualitative standard" whereby the courts can "assess the quality of education and the sufficiency of the funding" provided by the legislature. Also, the defendants asserted that the only right

guaranteed by the education clause is "one of access to a free public school meeting the minimum standards applied statewide," and that the equal protection provisions "only assure the nondiscriminatory performance of the duty created by the education clause."

Nine urban and suburban school systems were allowed to intervene as defendants. Their position stated that the funding scheme devised by the General Assembly was not subject to court review. They argued that they did not want the funding program which favors their systems disturbed. Finally, they charged that the poorer systems have not made their best efforts to raise locally any additional funding needed.

On the issue of justiciability, the court stated that the same objections have been raised in other cases. See *McDaniel v. Thomas* (GA, 1981); *Rose v. Council for Better Education* (KY, 1989); *Board of Education, Levittown Union Free School District v. Nyquist* (NY, 1982); *Board of Education of the City School District of Cincinnati v. Walter* (Ohio, 1979); *Edgewood Independent School District v. Kirby* (Tex, 1989); *Seattle School District Number 1 of King County v. State* (Wash, 1978); and *Washakie County*

School District number 1 v. Herschler (Wyo, 1980). In all these cases, the respective courts ruled that the constitutionality of the state's education funding program was a justiciable issue.

The next issue centered on the education clause challenge. Here the court found that other lawsuits provided no clear guidance. These decisions were controlled in large measure by the particular wording of the state constitution regarding education. Some courts have rejected education clause challenges to public school funding legislation. See *McDaniel v. Thomas* (GA, 1981) (the constitution requires only an "adequate education", not equal educational opportunities); *Board of Education, Levittown Union Free School District v. Nyquist* (NY, 1982) (constitutional provision for "the maintenance and support of a system of free schools" contemplates only "minimal acceptable facilities and services"); and *Board of Education of the City School District of Cincinnati v. Walter* (Ohio, 1979) (constitutional requirement that a "thorough and efficient" education be provided mandates only that students not be deprived of "educational opportunity").

Courts in other states, however, have upheld constitutional challenges

based upon their education clauses. See *Rose v. Council for Better Education* (KY, 1989) (the constitutionally required "efficient" system of public schools "must be substantially uniform throughout the state", providing every child in the state "with an equal opportunity to have an adequate education"); *Edgewood Independent School District v. Kirby* (Tex, 1989) ("efficient" system guarantees "substantially equal access to similar revenues per pupil at similar levels of tax effort" so that students are "afforded a substantially equal opportunity to have access to educational funds"); and *Seattle School District Number 1 of King County v. State* (Wash, 1978) (constitutional language calling for "ample provision" for a "general and uniform" system of schools imposes a duty to "make ample provision for the basic education of our resident children through a general and uniform system supported by dependable and regular tax sources").

The final issue was the equal protection challenge. Based on the *San Antonio Independent School District v. Rodriguez* (Tex, 1973), United States Supreme Court decision, the plaintiffs realized that were not entitled to relief under the equal protection provisions of the Fourteenth Amendment to the

United States Constitution. They were, however, entitled to relief under the equal protection clause of the Tennessee Constitution. In *Doe v. Norris* (Tenn, 1988) "In the interpretation of the Tennessee Constitution, this court is always free to expand the minimum level of protection mandated by the federal constitution." Nonetheless, the Court has stated in previous decisions that Article I, Section 8 and Article XI, Section 8 of the Tennessee Constitution and the Fourteenth Amendment to the Constitution of the United States confer essentially the same protection upon the individuals subject to those provisions.

The Court in the Tennessee Small School Systems lawsuit, also followed the framework developed by the United States Supreme Court for analyzing equal protection claims. It utilized three standards of scrutiny depending on the right asserted. See *City of Memphis v. International Brotherhood of Electric Workers Union* (Tenn, 1976) (reduced scrutiny); *Mitchell v. Mitchell* (Tenn, 1980) (heightened scrutiny); and *Doe v. Norris* (Tenn, 1988) (strict scrutiny). In the Tennessee Small School Systems lawsuit, the Court found the public school system to be constitutionally

invalid under all three levels of scrutiny.

After a six-week trial in the fall of 1990, the trial court found that the funding system violated the equal protection provisions of the state constitution and entered a declaratory judgement for the plaintiffs. The Court of Appeals of Tennessee reversed the judgement and dismissed the case. The Tennessee Supreme Court held, reversed. The Supreme Court held that:

1. Constitutionality of state school funding scheme was a justiciable question,

2. Clause of State Constitution guaranteeing education provided enforceable standard,

3. Local control of public schools was not rational basis needed to justify disparate educational opportunities provided under state funding scheme (*Tennessee Small School Systems v. McWherter*, 1993).

In early 1992, before the conclusion of the lawsuit, the Tennessee General Assembly passed the Education Improvement Act which created the Better Education Program. The BEP replaced the Tennessee Foundation Program. The BEP funding formula was designed to decrease the disparity of funding available to local school districts. Major innovations found in the

BEP included:

a. greater equalization of the local share of school funds;

b. fiscal capacity calculations based on sales tax base, property tax base, and income as opposed to just property tax base used by the TFP, and

c. the BEP formula factors in differences in competitive salaries earned in different countries.

The BEP, however, stipulated that additional funds generated by the program could not be used to improve teacher salaries. The BEP was funded by increasing the sales tax by one-half of a percent. The BEP was to be phased in over a six-year period with full funding to be achieved by the 1997-98 school year. The State of Tennessee increased its share of the funding for local school districts from 45% to 67%, while supplying an estimated $664 million additional dollars for education when fully funded.

In early 1995, the association of small school districts once again appealed the Tennessee Small School Systems lawsuit. This time they were seeking immediate full-funding of the BEP and a provision for equalizing teachers' salaries. On February 16, 1995 the Supreme Court held that:

1. substantial improvement in educational opportunities throughout the state under BEP could best be accomplished incrementally and only if complete equalization of funding were accomplished incrementally also, and

2. BEP must include equalization of teachers' salaries according to the BEP formula.

In response to the Courts ruling over $8 million of BEP funds were awarded to forty-nine of Tennessee's 139 school districts as salary equity funds. The local school systems receiving the equity funds were required to provide matching funds at an average of 13%, or over $1 million from all systems (TEA News, January 1996). Local school systems were allowed to distribute the money according to local needs.

Summary

After more than twenty years of legal efforts to overturn unequal state educational funding programs, the following principles have emerged:

1. The inequity must be addressed as a state issue. The United States Supreme Court decision in Rodriguez demonstrated that federal courts will not invoke a U.S. constitutional standard.

2. The evidence to date has not persuaded the United States Supreme Court that either a fundamental interest or a suspect classification is involved in school financing.

3. States need possess only a rational basis for their financial programs and do not have to meet the more stringent test of compelling interest.

4. State interest can be based on an equal protection or an education clause.

5. A reasonable funding program must be developed (Guthrie, Garms, and Pierce, 1988).

CHAPTER III

METHODS AND PROCEDURES

Introduction

The purpose of this study was to evaluate the effectiveness of the Better Education Program. Specific areas to be evaluated were teacher salaries and the spending of BEP funds for classroom and nonclassroom expenditures.

Four specific research questions were examined in this study:

1. Has the Better Education Program resulted in more funds being allocated for educational programs in Tennessee's public schools? Domain 1

2. Has the Better Education Program been effective in reducing the salary gap between teachers from wealthier and poorer school districts? Domain 2

3. Do wealthier and poorer school districts utilize their Better Education Program funds differently or in a similar manner? Domain 3

4. What are the strengths and weaknesses of the Better Education Program? Domain 4

Information obtained from this study is intended to strengthen the limited amount of research on this important and timely subject. This chapter summarizes the methods and procedures used to obtain the data and perform the analyses needed to evaluate the effectiveness of the BEP. Chapter three is divided into the following sections: Introduction, The Population, Research Design, Data Collection, and Data Analysis.

The Population

The population identified to participate in this study were the 139 local school systems currently operating throughout the state of Tennessee (see Tables 1-6). For this study, the school systems were assigned to the following six categories: East Tennessee city school systems, East Tennessee county school systems, Middle Tennessee city school systems, Middle Tennessee county school systems, West Tennessee city school systems, and West Tennessee county school systems (see Table 7). The next step used in

Table 1. Domain 2: City School Systems in East Tennessee

	System	County		System	County
1	Alcoa	Blount	11	Harriman	Roane
2	Athens	McMinn	12	Johnson City	Washington
3	Bristol	Sullivan	13	Kingsport	Sullivan
4	Chattanooga	Hamilton	14	Lenoir City	Loudon
5	Cleveland	Bradley	15	Maryville	Blount
6	Clinton	Anderson	16	Newport	Cocke
7	Dayton	Rhea	17	Oak Ridge	Anderson
8	Elizabethton	Carter	18	Oneida	Scott
9	Etowah	McMinn	19	Rogersville	Hawkins
10	Greeneville	Greene	20	Sweetwater	Monroe

From TEA News and State of Tennessee Grand Division Legislation.

Table 2. Domain 2: County School Systems in East Tennessee

	System		System
1	Anderson County	16	Knox County
2	Blount County	17	Loudon County
3	Bradley County	18	McMinn County
4	Campbell County	19	Meigs County
5	Carter County	20	Monroe County
6	Claiborne County	21	Morgan County
7	Cocke County	22	Polk County
8	Grainger County	23	Rhea County
9	Greene County	24	Roane County
10	Hamblen County	25	Scott County
11	Hamilton County	26	Sevier County
12	Hancock County	27	Sullivan County
13	Hawkins County	28	Unicoi County
14	Jefferson County	29	Union County
15	Johnson County	30	Washington County

From TEA News and State of Tennessee Grand Division Legislation.

Table 3. Domain 2: City School Systems in Middle Tennessee

	System	County
1	Fayetteville	Lincoln
2	Franklin	Williamson
3	Lebanon	Wilson
4	Manchester	Coffee
5	Murfreesboro	Rutherford
6	Richard City	Marion
7	Tullahoma	Coffee

From TEA News and State of Tennessee Grand Division Legislation.

Table 4. Domain 2: County School Systems in Middle Tennessee

	System		System
1	Bedford County	23	Marion County
2	Bledsoe County	24	Marshall County
3	Cannon County	25	Maury County
4	Cheatham County	26	Montgomery County
5	Clay County	27	Moore County
6	Coffee County	28	Overton County
7	Cumberland County	29	Perry County
8	Davidson County	30	Pickett County
9	DeKalb County	31	Putnam County
10	Dickson County	32	Robertson County
11	Fentress County	33	Rutherford County
12	Franklin County	34	Sequatchie County
13	Giles County	35	Smith County
14	Grundy County	36	Stewart County
15	Hickman County	37	Sumner County
16	Houston County	38	Trousdale County
17	Humphreys County	39	Van Buren County
18	Jackson County	40	Warren County
19	Lawrence County	41	Wayne County
20	Lewis County	42	White County
21	Lincoln County	43	Williamson County
22	Macon County	44	Wilson County

From TEA News and State of Tennessee Grand Division Legislation.

Table 5. Domain 2: City School Systems in West Tennessee

	System	County		System	County
1	Alamo	Crockett	10	Lexington	Henderson
2	Bells	Crockett	11	McKenzie	Carroll
3	Bradford	Gibson	12	Memphis	Shelby
4	Covington	Tipton	13	Milan	Gibson
5	Dyersburg	Dyer	14	Paris	Henry
6	Gibson Special School District	Gibson	15	South Carroll	Carroll
7	Hollow Rock-Bruceton	Carroll	16	Trenton	Gibson
8	Humbolt	Gibson	17	Union City	Obion
9	Huntingdon	Carroll	18	West Carroll	Carroll

From TEA News and State of Tennessee Grand Division Legislation.

Table 6. Domain 2: County School Systems in West Tennessee

System		System	
1	Benton County	11	Henderson County
2	Carroll County	12	Henry County
3	Chester County	13	Lake County
4	Crockett County	14	Lauderdale County
5	Decatur County	15	Madison County
6	Dyer County	16	McNairy County
7	Fayette County	17	Obion County
8	Hardeman County	18	Shelby County
9	Hardin County	19	Tipton County
10	Haywood County	20	Weakley County

From TEA News and State of Tennessee Grand Division Legislation.

Table 7. Domain 2: Summary of Tennessee School Systems

Grand Division	Type of System	Number of Systems	Percent of Total Systems
East Tennessee	City	20	14.4%
East Tennessee	County	30	21.6%
Middle Tennessee	City	7	5.0%
Middle Tennessee	County	44	31.7%
West Tennessee	City	18	12.9%
West Tennessee	County	20	14.4%
		139	100%

From TEA News and State of Tennessee Grand Division Legislation.

selecting school systems for this study involved designating each school system as being wealthier or poorer. For this purpose the TACIR index was used. The TACIR index is used by the State of Tennessee to evaluate the fiscal capacity of local counties. The most significant characteristic that makes a local government (or school system) wealthier or poorer is its ability to raise revenues from its own sources (Green, 1990). Using the TACIR index, all 95 counties in Tennessee were ranked from one (county with the greatest fiscal capacity-Davidson County), to ninety-fifth (the county with the least fiscal capacity-Hancock County) (see Table 8).

For the purpose of this study, counties 1 through 48 on the TACIR index were designated wealthier counties, while counties 49 through 95 on the TACIR index were designated poorer counties. City school systems that were located in wealthier counties were designated as wealthier city schools, while city school systems located in poorer counties were designated as poorer city schools (see Tables 9-11). After using the TACIR index and county location to designate all school systems as either wealthier or poorer, table 12 shows the new distribution of Tennessee's 139 public school

Table 8. Domain 2: Estimated Fiscal Capacity of Local Governments for Funding Education, Ranked by Capacity

	COUNTY AREA	WFTEADA	(RANKED) CAPACITY	CAPACITY INDEX
1	Davidson	76,992	1,924	191.08%
2	Hamilton	52,010	1,317	130.79%
3	Knox	59,906	1,260	125.19%
4	Sullivan	29,502	1,177	116.86%
5	Williamson	16,431	1,166	115.81%
6	Shelby	165,331	1,152	114.45%
7	Washington	17,123	1,126	111.86%
8	Sevier	10,363	1,030	102.33%
9	Maury	10,942	1,004	99.73%
10	Rutherford	24,351	1,003	99.63%
11	Blount	17,137	1,002	99.51%
12	Hamblen	10,603	990	98.29%
13	Madison	16,140	980	97.31%
14	Roane	9,618	970	96.33%
15	Anderson	14,305	968	96.12%
16	Marshall	4,523	953	94.61%
17	McMinn	9,762	946	93.96%
18	Bradley	15,878	946	93.96%
19	Putnam	10,089	941	93.48%
20	Coffee	9,010	922	91.59%
21	Montgomery	17,786	919	91.24%
22	Humphreys	3,651	881	87.52%
23	Hawkins	9,051	859	85.30%
24	Sumner	23,026	853	84.72%
25	Henry	5,671	850	84.43%
26	Moore	1,123	849	84.36%
27	Loudon	6,673	823	81.74%

Table 8. Domain 2: Estimated Fiscal Capacity of Local Governments for Funding Education, Ranked by Capacity (con)

	COUNTY AREA	WFTEADA	(RANKED) CAPACITY	CAPACITY INDEX
28	Dyer	7,668	815	80.98%
29	Wilson	14,623	797	79.13%
30	Obion	7,655	796	79.06%
31	Bedford	6,495	771	76.55%
32	Greene	11,703	764	75.89%
33	Dickson	7,879	762	75.64%
34	Weakley	6,237	758	75.28%
35	Gibson	10,466	747	74.17%
36	Hardin	4,949	743	73.78%
37	Monroe	7,037	743	73.78%
38	Trousdale	1,327	724	71.95%
39	Giles	5,624	722	71.73%
40	Unicoi	3,408	713	70.78%
41	Marion	6,017	708	70.37%
42	Lawrence	7,581	707	70.25%
43	Carroll	5,938	705	69.99%
44	White	4,277	702	69.68%
45	Warren	7,441	695	68.99%
46	Cumberland	6,664	694	68.96%
47	Macon	3,200	693	68.86%
48	Rhea	5,646	690	68.57%
49	Robertson	9,080	686	68.13%
50	DeKalb	3,051	669	66.46%
51	Jefferson	6,684	668	66.31%
52	Benton	3,071	648	64.31%
53	Polk	3,106	647	64.27%
54	Lincoln	6,017	632	62.82%

Table 8. Domain 2: Estimated Fiscal Capacity of Local Governments for Funding Education, Ranked by Capacity (con)

	COUNTY AREA	WFTEADA	(RANKED) CAPACITY	CAPACITY INDEX
55	Jackson	1,682	631	62.70%
56	Franklin	7,351	629	62.44%
57	Hickman	3,290	627	62.30%
58	Cocke	6,419	624	61.99%
59	Carter	11,016	624	61.96%
60	McNairy	5,152	623	61.86%
61	Crockett	2,957	620	61.61%
62	Cannon	2,208	619	61.47%
63	Cheatham	5,842	616	61.20%
64	Smith	3,206	612	60.78%
65	Scott	4,987	611	60.69%
66	Henderson	4,930	598	59.36%
67	Chester	2,671	598	59.35%
68	Campbell	8,263	597	59.28%
69	Haywood	5,153	593	58.88%
70	Perry	1,270	592	58.82%
71	Lake	1,419	565	56.12%
72	Decatur	2,343	558	55.47%
73	Bledsoe	1,792	558	55.38%
74	Johnson	2,940	548	54.39%
75	Overton	3,554	541	53.71%
76	Lauderdale	5,941	540	53.60%
77	Stewart	1,906	536	53.28%
78	Meigs	1,852	531	52.72%
79	Tipton	8,767	529	52.56%
80	Sequatchie	2,337	517	51.37%

Table 8. Domain 2: Estimated Fiscal Capacity of Local Governments for Funding Education, Ranked by Capacity (con)

	COUNTY AREA	WFTEADA	(RANKED) CAPACITY	CAPACITY INDEX
81	Wayne	3,152	516	51.21%
82	Fayette	5,614	515	51.11%
83	Lewis	2,094	506	50.29%
84	Hardeman	5,960	503	49.97%
85	Houston	1,637	502	49.86%
86	Morgan	4,115	485	48.19%
87	Claiborne	5,954	477	47.38%
88	Grundy	3,073	469	46.60%
89	Grainger	3,761	447	44.41%
90	Fentress	2,799	440	43.71%
91	Pickett	943	440	43.68%
92	Van Buren	965	434	43.16%
93	Union	2,828	426	42.27%
94	Clay	1,875	423	41.98%
95	Hancock	1,716	231	22.96%
TOTAL		975,575	1,007	100.00%

From 1990 TACIR report.

Table 9. Domain 2: Measuring Fiscal Capacity of School Systems in East Tennessee Counties

	TACIR INDEX RANKING	County Systems	City Schools
Top	2	Hamilton	Chattanooga
50% of	3	Knox	
Tennessee	4	Sullivan	Bristol, Kingsport
Counties	7	Washington	Johnson City
	8	Sevier	
	11	Blount	Alcoa, Maryville
	12	Hamblen	
	14	Roane	Harriman
Wealthier	15	Anderson	Clinton, Oak Ridge
Schools	17	McMinn	Athens, Etowah
	18	Bradley	Cleveland
	23	Hawkins	Rogerville
	27	Loudon	Lenoir City
	32	Greene	Greeneville
	37	Monroe	Sweetwater
	40	Unicoi	
	48	Rhea	Dayton

Table 9. Domain 2: Measuring Fiscal Capacity of School Systems in East Tennessee Counties (con)

	TACIR INDEX RANKING	County Systems	City Schools
Bottom	51	Jefferson	
50% of	53	Polk	
Tennessee	58	Cocke	Newport
Counties	59	Carter	Elizabethton
	65	Scott	Oneida
	68	Campbell	
	74	Johnson	
	78	Meigs	
Poorer	86	Morgan	
Schools	87	Claiborne	
	89	Grainger	
	93	Union	
	95	Hancock	

From 1990 State of Tennessee TACIR INDEX.

Table 10. Domain 2: Measuring Fiscal Capacity of School Systems in Middle Tennessee Counties

	TACIR INDEX RANKING	County Systems	City Schools
Top 50% of Tennessee Counties	1	Davidson	
	5	Williamson	Franklin
	9	Maury	
	10	Rutherford	Murfreesboro
	16	Marshall	
	19	Putnam	
	20	Coffee	Manchester, Tullahoma
Wealthier Schools	21	Montgomery	
	22	Humphreys	
	24	Sumner	
	26	Moore	
	29	Wilson	Lebanon
	31	Bedford	
	33	Dickson	
	38	Trousdale	
	39	Giles	
	41	Marion	Richard
	42	Lawrence	
	44	White	
	45	Warren	
	46	Cumberland	
	47	Macon	

Table 10. Domain 2: Measuring Fiscal Capacity of School Systems in Middle Tennessee Counties (con)

	TACIR INDEX RANKING	County Systems	City Schools
Bottom	49	Robertson	
50% of	50	DeKalb	
Tennessee	54	Lincoln	Fayetteville
Counties	55	Jackson	
	56	Franklin	
	57	Hickman	
	60	Cannon	
	63	Cheatham	
Poorer	64	Smith	
Schools	70	Perry	
	73	Bledsoe	
	75	Overton	
	77	Stewart	
	80	Sequatchie	
	81	Wayne	
	83	Lewis	
	85	Houston	
	88	Grundy	
	90	Fentress	
	91	Pickett	
	92	Van Buren	
	94	Clay	

From 1990 State of Tennessee TACIR INDEX.

Table 11. Domain 2: Measuring Fiscal Capacity of School Systems in West Tennessee Counties

	TACIR INDEX RANKING	County Systems	City Schools
Top	6	Shelby	Memphis
50% of	13	Madison	
Tennessee	25	Henry	Paris
Counties	28	Dyer	Dyersburg
	30	Obion	Union
Wealthier	34	Weakley	
Schools	35	Gibson *	Trenton, Bradford, Gibson, Humbolt, Milan
	36	Hardin	
	43	Carroll	South Carroll, West Carroll, Hollow Rock, Bruceton, Huntingdon, McKenzie

Table 11. Domain 2: Measuring Fiscal Capacity of School Systems in West Tennessee Counties (con)

	TACIR INDEX RANKING	County Systems	City Schools
Bottom	52	Benton	
50% of	60	McNairy	
Tennessee	61	Crockett	Alamo, Bells
Counties	66	Henderson	Lexington
	67	Chester	
	69	Haywood	
Poorer	71	Lake County	
Schools	72	Decatur	
	76	Lauderdale	
	79	Tipton	Covington
	82	Fayette	
	84	Hardeman	

*Only City or Special School Districts
From 1990 State of Tennessee TACIR INDEX.

Table 12. Domain 2: Summary of Tennessee School Systems Based on Fiscal Capacity

Grand Division	Type of System	Fiscal Capacity	Number of Systems	Percent of Total Systems
East Tennessee	City	Wealthier	17	12.2%
	City	Poorer	3	2.2%
	County	Wealthier	17	12.2%
	County	Poorer	13	9.4%
Middle Tennessee	City	Wealthier	6	4.3%
	City	Poorer	1	0.7%
	County	Wealthier	22	15.8%
	County	Poorer	22	15.8%
West Tennessee	City	Wealthier	14	10.1%
	City	Poorer	4	2.9%
	County	Wealthier	8	5.8%
	County	Poorer	12	8.6%
			139	100%

From TEA News and State of Tennessee Grand Division Legislation.

systems into twelve categories. The groupings were now based on grand division, type of system, and fiscal capacity. A 25% stratified random sample was used to identify the 35 school systems analyzed in both studies (see Tables 13-15). Knox County, Davidson Metro, Memphis City, and Shelby County Schools were automatically included in the study because they are four of the largest school systems in Tennessee, and they served as defendants in the *Small Schools vs. McWherter* lawsuit.

Design

The research effort was analytical in nature. Two specific types of data were used in the study: teacher salary data, and the spending of BEP funds for classroom and nonclassroom expenditures.

Data Collection

Teacher salary data were readily available using the Tennessee Education Association's yearly salary surveys. These surveys are published in the TEA News. For this study, salary data were utilized for the 1988-89,

Table 13. Domain 2: Teacher Salary Data for Selected East Tennessee Public School Systems

Fiscal Capacity	Type of System	1988-89 BA Min	1988-89 MA Max	1994-95 BA Min	1994-95 MA Max
Top	Hamilton	18,433	28,267	23,659	38,465
50%	Hawkins	17,225	23,250	21,970	29,475
Counties	Monroe	17,953	23,235	22,542	28,849
	Knox	18,040	27,260	22,785	32,761
Wealthier					
	Bristol	21,300	29,860	27,580	37,010
Top	Maryville	19,085	30,536	24,225	38,760
50%	Harriman	17,535	26,533	23,071	33,088
Cities	Dayton	18,430	25,205	23,073	31,824
Bottom	Polk	17,013	24,681	21,573	30,869
50%	Morgan	16,999	22,467	21,670	28,320
Counties	Union	17,686	22,436	21,989	29,082
Poorer					
Bottom 50% Cities	Newport	17,455	24,350	22,980	31,105
East Tennessee Mean Salaries for Selected Schools		18,096	25,673	23,093	32,467

From TEA News January 1989 and March 1995.

Table 14. Domain 2: Teacher Salary Data for Selected Middle Tennessee Public School Systems

Fiscal Capacity	Type of System	1988-89 BA Min	1988-89 MA Max	1994-95 BA Min	1994-95 MA Max
Top	Montgomery	18,500	26,430	22,815	32,850
50%	Sumner	18,030	26,195	22,920	33,180
Counties	Dickson	17,450	25,039	22,020	30,920
	Trousdale	17,519	22,169	21,876	27,426
	Davidson	18,200	31,304	23,188	39,023
Wealthier					
Top	Manchester	19,050	27,157	24,052	34,329
50%	Richard	17,150	24,813	21,721	31,265
Cities					
	Cheatham	17,487	24,529	22,149	30,549
Bottom	Overton	17,377	22,244	21,670	27,860
50%	Lewis	17,230	21,880	21,670	27,220
Counties	Fentress	17,550	22,447	21,947	27,952
	Clay	16,925	21,575	21,115	26,665
Poorer					
Bottom 50% Cities	Fayetteville	17,931	24,848	22,711	30,965
Middle Tennessee Mean Salaries for Selected Schools		17,723	24,664	22,296	30,785

From TEA News January 1989 and March 1995.

Table 15. Domain 2: Teacher Salary Data for Selected West Tennessee Public School Systems

Fiscal Capacity	Type of System	1988-89 BA Min	1988-89 MA Max	1994-95 BA Min	1994-95 MA Max
Top 50% Counties	Henry	17,305	23,715	21,895	30,260
	Shelby	20,238	30,287	25,885	38,706
Wealthier					
	Gibson	17,802	23,150	23,604	30,264
Top 50% Cities	Humbolt	18,205	24,740	22,810	30,532
	South Carroll	17,900	23,028	22,920	29,001
	McKenzie	18,130	24,235	23,044	30,382
Bottom 50% Counties	Lake	17,642	22,975	22,770	29,126
	Tipton	17,375	24,468	22,285	30,690
	Hardeman	17,015	23,305	21,795	30,140
Poorer					
Bottom 50% Cities	Bells	17,305	21,955	21,995	27,545
West Tennessee Mean Salaries for Selected Schools		18,021	24,514	23,129	31,509
Statewide Mean Salaries for Selected Schools		17,936	24,967	22,807	31,569

From TEA News January 1989 and March 1995.

and 1994-95 school years. The 1988-89 data represented salaries three years before the BEP, while the 1994-95 data represented salaries three years after the BEP.

The second phase of the study relied on data found on the 21st Century Schools Report Card. This data were compiled by the state of Tennessee for all 139 public school systems. Only the BEP Accountability Budget Summary for Fiscal Year 1994-95 was utilized in this study. The same thirty-five public schools taken from the sample, were used in both studies. The BEP Accountability Budget Summary supplied line-item listings of BEP fund spending, and a summary of funds spent on classroom and nonclassroom items.

Data Analysis

Teacher salary data were collected for each of the selected 35 school systems in the following categories: 1988-89 B.A. minimum experience, 1988-89 M.A. maximum experience, 1994-95 B.A. minimum experience, and 1994-95 M.A. maximum experience (TEA News, January 1989 and

March 1995). All maximum salaries are ranked at the 15th experience year or the final step of the schedule, whichever occurs first (TEA News, January 1989). Mean salaries were calculated for all four categories by region (East, Middle, and West Tennessee) and statewide (see Tables 13-15). Individual salaries were then compared to see if they were above the mean (+) or below the mean (-). Average means were calculated for wealthier and poorer school systems to see if a salary gap existed between these school systems. 1988-89 and 1994-95 salary gaps were then compared at the B.A. minimum experience level, and at the M.A. maximum experience level to see if the salary gaps had been closed by the BEP.

The second phase of the study utilized BEP spending records to analyze classroom and nonclassroom expenditures by selected wealthier and poorer districts. The BEP Accountability Budget Summary for 1994-95 was utilized to classify the percent of BEP funds spent on classroom and nonclassroom expenditures (see Tables 16-18). Once again mean scores were calculated by region and statewide to see if any significant difference

existed in the spending patterns between wealthier and poorer school systems.

Table 16. Domain 3: 1994-95 Spending Summary of Selected BEP Funds in East Tennessee

TACIR INDEX RANKING	TYPE OF SYSTEM	FUNDS SPENT FOR CLASSROOMS	%	FUNDS SPENT FOR NONCLASSROOMS	%
Top 50%	Hamilton County	1,819,041	94.30	109,959	5.70
	Hawkins County	3,431,083	96.92	108,967	3.08
	Monroe County	1,652,207	45.50	1,979,243	54.50
	Knox County	6,392,344	90.78	648,956	9.22
Top 50%	Bristol City	493,163	92.08	42,437	7.92
	Maryville City	912,333	94.15	56,667	5.85
	Harriman City	648,594	65.47	342,375	34.53
	Dayton City	302,126	46.84	342,891	53.16
Bottom 50%	Polk County	740,270	53.72	637,744	46.28
	Morgan County	1,442,603	60.03	960,656	39.97
	Union County	1,477,363	49.29	1,520,073	50.71
Bottom 50%	Newport City	306,968	80.62	73,814	19.38

From 1990 State of Tennessee TACIR INDEX and 1994-95 BEP Accountability Budget Summary.

Table 17. Domain 3: 1994-95 Spending Summary of Selected BEP Funds in Middle Tennessee

TACIR INDEX RANKING	TYPE OF SYSTEM	FUNDS SPENT FOR CLASSROOMS	%	FUNDS SPENT FOR NONCLASSROOMS	%
Top 50%	Montgomery County	11,752,325	89.46	1,383,975	10.54
	Sumner County	10,751,949	92.12	919,151	7.88
	Dickson County	3,348,500	73.95	1,179,300	26.05
	Trousdale County	497,138	54.24	419,462	45.76
	Davidson County	9,541,000	100.00	0	0.00
Top 50%	Manchester City	307,976	83.28	61,824	16.72
	Richard City	141,000	64.38	78,000	35.62
Bottom 50%	Cheatham County	3,662,279	70.87	1,505,521	29.13
	Overton County	1,643,446	68.75	746,861	31.25
	Lewis County	927,077	61.12	589,618	38.88
	Fentress County	778,222	49.01	809,697	50.99
	Clay County	506,985	64.01	285,115	35.99
Bottom 50%	Fayetteville City	423,386	79.29	110,614	20.71

From 1990 State of Tennessee TACIR INDEX and 1994-95 BEP Accountability Budget Summary.

Table 18. **Domain 3:** **1994-95 Spending Summary of Selected BEP Funds in West Tennessee**

TACIR INDEX RANKING	TYPE OF SYSTEM	FUNDS SPENT FOR CLASSROOMS	%	FUNDS SPENT FOR NONCLASSROOMS	%
Top 50%	Henry County	1,004,352	45.20	1,217,888	54.80
	Shelby County	10,780,165	86.42	1,693,835	13.58
Top 50%	Memphis City	25,370,740	86.38	4,000,260	13.62
	Humbolt City	946,868	71.35	380,262	28.65
	South Carroll City	170,581	100.00	0	0
	McKenzie	518,300	63.57	297,000	36.43
Bottom 50%	Lake County	359,125	56.41	277,475	43.59
	Tipton County	7,021,000	83.15	1,422,500	16.85
	Hardeman County	1,629,262	34.91	3,037,231	65.09
Bottom 50%	Bells City	179,070	84.89	31,870	15.11

From 1990 State of Tennessee TACIR INDEX and 1994-95 BEP Accountability Budget Summary.

CHAPTER IV

PRESENTATION OF DATA AND FINDINGS OF THE STUDY

Introduction

The purpose of this study was to evaluate the effectiveness of the Better Education program in equalizing available educational opportunities in select Tennessee public schools. The first phase involved analyzing teacher salary data from a stratified random sample of 35 public school systems. The TACIR index was used to designate selected schools as wealthier or poorer school districts. Next, mean salaries were compared to see if a salary gap existed between wealthier and poorer school districts. Finally, salary data from the 1988-89 and 1994-95 school years were compared to see if the salary gap had been closed by the BEP.

The second phase of the study involved comparing the spending patterns of select public school regarding the expenditure of their BEP funds for classroom and nonclassroom items. Using the same randomly selected 35

school systems in phase 1, mean expenditures were calculated for classroom and nonclassroom items as a percentage of available funds. Classroom expenditures were then compared for wealthier and poorer school district to see if any significant differences existed in the spending of BEP funds.

This chapter contains the data analysis and findings of the study. The data presented were obtained using teacher salary data published in the TEA News and from the BEP Accountability Budget Summary published as part of each public school systems 21st Century Schools Report Card. A stratified random sample of 35 public school systems was selected and used for both studies. Means and average deviations were calculated for both phases of the study. The analysis presented in this chapter was conducted in relation to the study's four basic research questions:

Question One

Has the Better Education Program been effective in reducing the salary gap between teachers from wealthier and poorer school districts?

Question Two

Has the Better Education Program been effective in reducing the salary

gap between teachers from wealthier and poorer school districts?

Question Three

Do wealthier and poorer school districts utilize their Better Education Program funds differently or in a similar manner?

Question Four

What are the strengths and weaknesses of the Better Education Program?

Research Question 1

"Has the Better Education Program resulted in more funds being allocated for educational programs in Tennessee's public schools?"

In 1988, the *Tennessee Small School Systems v. McWherter* lawsuit identified the need for a new funding program for Tennessee's public schools. Under the old Tennessee Foundation Program (TFP), many school systems could not provide basic curriculum choices for their students, adequate facilities, or even comply with the state's minimum regulations.

During the trial, it became evident that a great disparity existed in the revenues available for local school districts, and that the wide disparity was related to differences in fiscal capacity and not inadequate local effort in raising funds for education.

Two views of a new funding scheme soon surfaced. The view that was feared by the wealthier school districts, and resulted in nine urban and suburban school systems challenging the *Tennessee Small School Systems v. McWherter* lawsuit, was the "Robin Hood" funding scheme. This proposed funding scheme was characterized by the generation of no new funds for public schools, but featured a redistribution of educational funds from wealthier to poorer school districts. The second proposed funding scheme, advocated creating a new, larger source of funds for public education with a more equitable distribution of funds between wealthier and poorer school districts. Out of this second vision of a new funding scheme came the BEP, which silenced the fears of using a "Robin Hood", approach to address Tennessee's public school funding inequity.

Under the TFP, the state of Tennessee provided approximately 45% of

the funding for public education based primarily on the property tax base. Local governments (or school systems) were tasked to also provide 45% of the funding. Local funding comes principally from property tax and local option sales tax. Additional funds are raised through wheel taxes, beer taxes, motel taxes, etc. Under the TFP, only sixty million dollars out of a 2.5 billion dollar budget were allocated for equalization funds to compensate for school districts with a small tax base (*Tennessee Small School Systems v. McWherter*, 1993).

The BEP program proposed raising the state of Tennessee's share of funding for public education to 67%. Major innovations of the BEP includes a) greater equalization of the local share distributed under the formula; b) fiscal capacity calculations based on sales tax base, property tax base, and income; and c) the BEP formula factors in differences in competitive salaries earned in different counties (*Tennessee Small School Systems v. McWherter*, 1993).

The next issue was how to fund the BEP. Some people felt that the new funding scheme should be funded by a statewide lottery or a state

income tax. Others felt that the new funding scheme should be tied to a revision in the Tennessee tax structure to produce a more progressive tax structure. A progressive tax is defined as a tax where the rates progress toward higher percentages at higher incomes (Guthrie, Garms, and Pierce, 1988). Advocates of a progressive tax for the new funding scheme, attempted to link a state income tax with the elimination of the sales tax on food and prescription drugs. This they advocated, would shift the burden of the BEP from low and middle income groups, to the upper income groups. The Tennessee state legislature decided to finance the BEP by temporarily raising the sales tax by a half-cent. This temporary tax increase soon became permanent, and continues to finance the BEP today.

The funding formula adopted by the state legislature in 1992 as part of the BEP is entering its fourth year. This new formula replaced a broad array of categorical funding programs, as well as the TFP, and is being phased in over a six-year period. Increases are added to the funds that were received under the TFP (21st Century Schools Report Card, 1995). The state's share of additional funds for the BEP was $287 million in 1992, $389 million in

1993, $500 million in 1994, $618 million in 1995, and an estimated $664 million in 1996 (*Tennessee Small School Systems v. McWherter*, 1993). During the 1993-94 school year approximately 86% of the BEP was funded. In 1994-95, funding of the BEP had climbed to 88%. Future funding estimates are 92% by the 1995-96 school year, 95% by 1996-97, with full funding to be achieved by July 1, 1997 (Tennessee Department of Education, 1995).

Question one addressed four of the major findings of the Tennessee Small Schools lawsuit.

They include:

Finding (1) that the statutory funding scheme had produced a great disparity in the revenues available to local school districts;

Finding (2) because of lack of fiscal capacity, there is little poorer school districts can do the offset county sales tax disparities;

Finding (3) per classroom funding varied widely statewide; and

Finding (4) the wide disparity is related to differences in fiscal capacity and not inadequate local effort.

Research Question 2

"Has the Better Education Program been effective in reducing the salary gap between teachers from wealthier and poorer districts?"

In 1993, one major finding of the *Tennessee Small Systems v. McWherter* was that poorer school districts fail in their efforts to retain teachers. This conclusion was primarily based on inequities in teacher pay. During the 1988-89 school year, the following high and low salaries were reported by the TEA News (January 1989):

Bachelor's degree no experience

Highest salary	$21,300	Bristol City Schools
Lowest salary	$16,925	Claiborne County, Clay County, Hancock County, Hardin County, Jefferson County, McNairy County, Pickett County, and Wayne County

Master's degree maximum experience

Highest salary	$33,160	Alcoa City Schools
Lowest salary	$21,575	Clay County, Hancock County, Pickett County

Six years later, despite several state pay raises, disparities in teachers salaries were still evident when reported by the TEA News (March 1995):

Bachelor's degree no experience

Highest salary	$27,580	Bristol City Schools
Lowest salary	$21,115	Clay County, Hancock County, Pickett County

Master's degree maximum experience

Highest salary	$41,540	Oak Ridge City Schools
Lowest salary	$26,665	Clay County, Hancock County, Pickett County

In order to more closely examine the issue of the salary gap between wealthier and poorer school districts, a 25% stratified random sample was

selected from Tennessee's 139 public school systems (Selby, 1980). Prior to selecting the sample, school systems were categorized based on location (East, Middle, or West Tennessee), type (city or county school system), and fiscal capacity (wealthier or poorer based on the TACIR index ranking of the county in which they are located) (see Tables 1-13). School systems selected for both studies (teacher salaries and BEP spending patterns) included:

East Tennessee:	**Wealthier**-Hamilton County	**Poorer**-Polk County
	Hawkins County	Morgan County
	Monroe County	Union County
	Knox County	
	Bristol City	Newport City
	Maryville City	
	Harriman City	
	Dayton City	
Middle Tennessee:	**Wealthier**-Montgomery County	**Poorer**-Cheatham County
	Sumner County	Overton County
	Dickson County	Lewis County
	Trousdale County	Fentress County
	Davidson County	Clay County
	Manchester City	Fayetteville City
	Richard City	

West Tennessee:	**Wealthier**-Henry County	**Poorer**-Lake County
	Shelby County	Tipton County
		Hardeman County
	Memphis City	Bells City
	Humbolt City	
	South Carroll City	
	McKenzie City	

Salaries for these selected 35 school systems were compared for the 1988-89 and 1994-95 school years. The 1988-89 data represented salaries three years prior to the BEP, while the 1994-95 date represented salaries three years after the inception of the BEP program. Salaries were analyzed at the bottom of the pay scale (BA degree no experience), and at the top of the pay scale (MA degree maximum experience). To achieve more accurate comparisons and avoid distortions caused by schedules with extended experience steps, all maximum salaries are ranked at the 15th year of experience or the final step of the schedule, whichever occurs first (TEA News, March 1995).

In order to compare the salary gap between wealthier and poorer school systems, the following procedures were followed. First, a statewide

mean salary was calculated for all 35 selected schools in the following four categories:

Statewide Mean	1988-89		1994-95	
Salaries For	BA Min	MA Max	BA Min	MA Max
Selected Systems	17,936	24,967	22,807	31,569

Salary data for the selected 35 school systems were then compared to the statewide means for the 35 selected school systems. Salaries above the mean were designated (+) scores and the exact salary difference was calculated. Salaries below the mean were designated (-) scores and the exact salary difference was also calculated for these scores. Table 19 shows the results of these calculations. Wealthier schools in East Tennessee paid salaries above the statewide mean for school systems in the sample, while poorer schools paid salaries below the mean (see Table 19). To calculate the salary gap between wealthier and poorer school systems, the absolute value of the average difference for poorer school systems was added to the average difference of the rich school systems as follows:

salary gap = absolute value (|x|) of the average difference poorer schools + average difference wealthier school systems (see Table 19).

Statewide Average	1988-89		1994-95	
Salary Gap Between	BA Min	MA Max	BA Min	MA Max
Selected Wealthier and Poorer Schools	$949	$2,798	$1,261	$3,917

During the six year period from 1988-89 through 1994-95, the salary gap for beginning teachers in the 35 selected school systems, had grown from $949 to $1261 (a difference of $312). This meant that wealthier school systems in the study were continuing to widen the salary gap between themselves and the poorer school systems when competing for new teachers. The salary gap for experienced teachers was more pronounced. The gap had increased from $2,798 to $3,917 (a difference of $1119). This meant that wealthier school systems from the study group were better able to recruit experienced teachers away from their rival poorer school systems in the study.

A comparison of mean salaries had clearly shown that the salary gap

Table 19. Domain 2: Differences in Teacher Salary Data for Selected Tennessee Public Schools

Location	Fiscal Capacity	System	1988-89 BA Min	1988-89 MA Max	1994-95 BA Min	1994-95 MA Max
Statewide Mean Salaries for Select Systems			**17,936**	**24,967**	**22,807**	**31,569**
East Tennessee	**Wealthier**	Hamilton County	+497	+3300	+852	+6896
		Hawkins County	-711	-1717	-837	-2094
		Monroe County	+17	+628	-265	-2720
		Knox County	+104	+2293	-22	+1192
		Bristol City	+3364	+4893	+4773	+5441
		Maryville City	+1149	+556	+1418	+7191
		Harriman City	-401	+1566	+264	+1519
		Dayton City	+494	+238	+266	+255
	Average Difference		+564	+2096	+806	+2210
East Tennessee	**Poorer**	Polk County	-923	-286	-1234	-700
		Morgan County	-937	-2500	-1137	-3249
		Union County	-250	-2531	-818	-2487
		Newport City	-481	-617	+173	-464
	Average Difference		-648	-1484	-754	-1725
Salary Gap Between Wealthier and Poorer Selected Schools in East Tennessee			**$1212**	**$3580**	**$1560**	**$3935**

Table 19. Domain 2: Differences in Teacher Salary Data for Selected Tennessee Public Schools (con)

Location	Fiscal Capacity	System	1988-89 BA Min	1988-89 MA Max	1994-95 BA Min	1994-95 MA Max
Middle Tennessee		Montgomery County	+564	+1463	+8	+1281
		Sumner County	+94	+1228	+113	+1611
		Dickson County	-486	+72	-787	-649
		Trousdale County	-417	-2798	-931	-4143
		Davidson County	+264	+6337	+381	+7454
	Wealthier					
		Manchester City	+1114	+2190	+1245	+2760
		Richard City	-786	-154	-1086	-304
	Average Difference		+50	+1191	-151	+1144
Middle Tennessee		Cheatham County	-449	-438	-658	-1020
		Overton County	-559	+1619	-1136	-3709
		Lewis County	-706	-3087	-1136	-4349
		Fentress County	-386	-2520	-860	-3617
		Clay County	-1011	-3392	-1692	-4904
	Poorer					
Middle Tennessee		Fayetteville City	-5	-119	-96	-604
	Average Difference		-519	-1323	-930	-3034
Salary Gap Between Wealthier and Poorer Selected Schools in Middle Tennessee			**$569**	**$2514**	**$779**	**$4178**

Table 19. Domain 2: Differences in Teacher Salary Data for Selected Tennessee Public Schools (con)

Location	Fiscal Capacity	System	1988-89 BA Min	1988-89 MA Max	1994-95 BA Min	1994-95 MA Max
West Tennessee		Henry County	-731	-1252	-912	-1309
		Shelby County	+2302	+5320	+3078	+7137
	Wealthier					
		Memphis City	+1164	+1456	+3078	+7137
		Humbolt City	+269	-227	+3	-1037
		South Carroll City	-36	-1939	+113	-2568
		McKenzie City	+194	-732	+237	-1187
	Average Difference		+527	+438	+933	+1362
West Tennessee		Lake County	-294	-1992	-37	-2443
		Tipton County	-561	-499	-522	-879
		Hardeman County	-921	-1662	-1012	-1429
	Poorer					
		Bells City	-631	-3012	-812	-4024
	Average Difference		-602	-1791	-596	-2194
Salary Gap Between Wealthier and Poorer Selected Schools in Middle Tennessee			**$1129**	**$2229**	**$1529**	**$3556**
Statewide Average Salary Gap Between Selected Wealthier and Poorer Schools			**$949**	**$2798**	**$1261**	**$3917**

between selected wealthier and poorer school systems were increasing. The question remained, however, was this increase significant?

To test the significance of the increasing salary gap, the Fisher median sign test was used. This nonparametric test compares two correlated samples, and is applicable to data composed of N paired observations. The difference between each pair of observations is obtained. The null hypothesis is that the median difference between the pairs is 0. The test is based on the idea that under the null hypothesis the expectation is that half the differences between the paired observations will be positive and the other half negative (Ferguson and Takane, 1989).

For this test, salary data for each of the selected poorer school districts was compared to the statewide mean salaries for the selected wealthier school systems to determine what percentage of the statewide mean the poorer systems paid their teachers (see Table 20). If the selected poorer school system paid a higher percentage of the mean salary for the selected wealthier school systems during the 1994-95 school year than during the 1988-89 school year the change was designated (+). If the selected poorer school

Table 20. Domain 2: Significance of Teacher Salary Gaps

Location	Fiscal Capacity	System	1988-89 BA Min	% of Wealthier Mean	1994-95 BA Min	% of Wealthier Mean	Change (+/-)
Statewide Mean Salaries for Selected Wealthier Systems			**$18,323**		**$23,152**		
East Tennessee		Polk County		92.85%		93.18%	+
		Morgan County		92.77%		93.60%	+
	Poorer	Union County		96.52%		94.98%	-
		Newport City		95.26%		99.26%	+
Middle Tennessee		Cheatham County		95.44%		95.67%	+
		Overton County		94.83%		93.60%	-
		Lewis County		94.03%		93.60%	-
		Fentress County		95.78%		94.79%	-
	Poorer	Clay County		92.37%		91.20%	-
		Fayetteville City		97.86%		98.10%	+
West Tennessee		Lake County		96.28%		98.35%	+
		Tipton County		94.83%		96.26%	+
		Hardeman County		92.86%		94.14%	+
	Poorer	Bells City		94.44%		95.00%	+

(+) = 9
(-) = 5

Table 20. Domain 2: Significance of Teacher Salary Gaps (con)

Location	Fiscal Capacity	System	1988-89 MA Max	% of Wealthier Mean	1994-95 MA Max	% of Wealthier Mean	Change (+/ -)
Statewide Mean Salaries for Selected Wealthier Systems			**$26,175**		**$33,182**		
East Tennessee	**Poorer**	Polk County		94.29%		93.03%	-
		Morgan County		85.83%		85.35%	-
		Union County		85.72%		87.64%	+
		Newport City		93.02%		93.74%	+
Middle Tennessee	**Poorer**	Cheatham County		93.71%		92.06%	-
		Overton County		84.98%		83.96%	-
		Lewis County		83.59%		82.03%	-
		Fentress County		85.75%		84.24%	-
		Clay County		82.43%		80.36%	-
		Fayetteville City		94.93%		93.32%	-
West Tennessee	**Poorer**	Lake County		97.77%		87.78%	+
		Tipton County		93.48%		92.48%	-
		Hardeman County		89.04%		90.83%	+
		Bells City		83.88%		83.01%	-
						(+) = 4	
						(-) = 10	

Table 21. **Domain 2:** **Fisher Median Sign Test**

Fisher Median Sign Test (Bachelor Degree - Minimum Experience)

$$z = \frac{|D| - 1}{\sqrt{N}} = \frac{|9 - 5| - 1}{\sqrt{14}} = 0.802$$

Level of significance for one-tailed test

t 0.05, one-tailed, df ∞ = 1.645

Ho : D median = O

Therefore, we do not reject the null hypothesis.

Table 21. **Domain 2:** **Fisher Median Sign Test (con)**

Fisher Median Sign Test (Masters Degree - Maximum Experience)

$$z = \frac{|D| - 1}{\sqrt{N}} = \frac{|4 - 10| - 1}{\sqrt{14}} = 1.336$$

Level of significance for one-tailed test

t 0.05, one-tailed, df ∞ = 1.645

Ho : D median = O

Therefore, we do not reject the null hypothesis.

---

system paid a lower percentage, the change was designated (-). Salary changes were examined at the BA minimum and MA maximum levels.

Table 20 shows that nine of the fourteen selected poorer school systems paid a higher percentage of the statewide mean salaries for selected wealthier systems (+), while five systems paid a lower percentage (-) at the BA minimum level. At the MA maximum level, four school systems paid a greater percentage of the statewide mean salaries (+), while ten school systems paid a lower percentage (-).

Table 21 shows the results of the Fisher Sign Test. D represents the absolute value of the difference between the number of (+) and (-) signs. N represents the number of school systems used in the study. At the BA minimum level, the calculated value of 0.802 did not approach the predicted value of 1.645 for a one-tailed test at the 0.05 level of significance, and was clearly short of significance. At the MA maximum level, the calculated value of 1.336 was much closer to the predicted value of 1.645, but once again fell short of significance.

Two things can be concluded from the Fisher Sign Tests. The salary

gap for teachers in selected Tennessee school systems had increased from 1988 through 1995, but not at a significant level. Also, the salary gap at the MA level was more pronounced than at the BA level.

Tennessee state teacher pay increased 15% from July, 1992 through October, 1994. Nationwide, teacher pay in Tennessee had climbed to 28th place, after being in the low 40's for much of the 1980's (TEA News, January 1996). Despite this tremendous boost in pay, a great disparity still existed in the pay for teachers from wealthier and poorer school districts. The BEP, however, in its original form did not include teacher pay. The Education Improvement Act of 1992 specifically stated that BEP money could not be used to improve teacher salaries. Teacher raises would have to come entirely from local funds. As part of their continuing challenge to funding inequities, the rural school systems who challenged the TFP funding scheme, returned to court alleging that equity could not be achieved as long as poorer school systems continued to lag behind the wealthier systems in teacher pay. In a February 16th, 1995 ruling the Tennessee Supreme Court unanimously ruled:

> "Teachers, obviously, are the most important component of any education plan or system, and compensation is, at least, a significant factor determining a teacher's place of employment. The costs of teachers' compensation and benefits is the major item in every education budget. The failure to provide for the equalization of teachers' salaries according to the BEP formula, puts the entire plan at risk functionally and, therefore legally" (TEA NEWS, March 1995).

The court rejected an appeal from plaintiffs to immediately fund the BEP and equalize funding, including salaries. Instead the state legislature was given until the 1997-98 school year to fully fund BEP and equalize teacher pay. Rural school systems have asked that salaries be equalized so that no systems pays less than 95% of the state average. Pay is to be equalized without lowering pay to teachers in wealthier school systems.

In response to the Tennessee Supreme Courts ruling in February, 1995, over $8 million of BEP funds were awarded to forty-nine public school systems as salary equity funds. The local systems receiving the equity funds were required to provide matching funds at an average of 13% or over $1 million total from all systems (TEA NEWS, January 1996). The decision was made not to amend the state minimum schedule, to avoid the question of

fair treatment to the larger, wealthier school systems. Teacher salaries for these selected 49 school systems now include a base (state minimum) schedule, a local supplement schedule and a salary equity schedule. School systems were allowed to distribute the money according to local needs. Twenty systems divided the dollars equally to every teacher. Other systems awarded funds based on experience and training, while a few systems paid only their most experienced teachers the salary equity dollars. Local school systems receiving equity salary dollars included:

East Tennessee	Middle Tennessee	West Tennessee
Claiborne County	Bledsoe County	Carroll County
Cocke County	Cannon County	Chester County
Grainger County	*Clay County	Crockett County
Hancock County	DeKalb County	Decatur County
Johnson County	*Fentress County	Fayette County
*Monroe County	Grundy County	*Hardeman County
*Morgan County	Hickman County	Hardin County
Scott County	Houston County	Haywood County
*Union County	Jackson County	Henderson County
Oneida City	*Lewis County	*Lake County

East Tennessee	Middle Tennessee	West Tennessee
	Macon County	Lauderdale County
	*Overton County	McNairy County
	Perry County	*Tipton County
	Pickett County	Weakley County
	Sequatchie County	Alamo City
	Smith County	*Bells City
	*Trousdale County	*South Carroll
	Van Buren County	West Carroll
	Wayne County	
	White County	
	*Richard City	

* - Denotes school systems selected for domain 2 and 3 studies (From TEA NEWS, January 1996).

Question two addressed finding 6 of the Tennessee Small Schools lawsuit, that poorer school districts fail in their efforts to retain teachers.

Research Question 3

"Do wealthier and poorer school districts utilize their Better Education Program funds differently or in a similar manner?"

In the fall of 1994, the Kingsport City Schools used their BEP funds to equip twenty-five 21st Century classrooms, while the nearby Hancock County schools purchased a few computers but spent most of their new money to hire art teachers and guidance counselors. This illustration is just one example of how differently rich and poorer school systems spend their BEP funds (The Daily Times, August 1995). A report released by the Tennessee Department of Education in August 1995, showed BEP funds being spent in the following categories:

- $101.1 million to hire 2,999 teachers to reduce class sizes in grades K-8,
- $18.3 million for 541 high school teachers,
- $21.4 million to buy new textbooks, instructional supplies and materials for classroom use,
- $12.7 million to buy instructional technology and equipment,
- $25 million for construction and renovation of classrooms,

- $63 million for equipment, teacher training and instructional materials for 4,150 21st Century classrooms, and

- $11.2 million for equipment, software, training and mainframe development for a student management information system (The Daily Times, August 1995).

To study the BEP spending patterns of wealthier and poorer school systems, the same 25% stratified random sample of 35 school systems used to study domain 2, was used for domain three. The BEP Accountability Budget Summary for Fiscal Year 1994-95 was used to calculate the percent of BEP funds spent on classroom versus nonclassroom expenditures (see Tables 16-18) (21st Century Schools Report Card, 1995). Classroom expenditures includes teacher salaries and benefits, teacher assistants, textbooks, library books, inservice training, instructional supplies and materials, and technology such as computers. Nonclassroom expenditures includes building construction or improvements, transportation equipment, utilities, custodians, or administrative expenses. An analysis of tables 16-18 revealed several pieces of data:

- the range of spending for classroom expenditures for wealthier schools in the study group extended from 45.2% to 100%,

- the range of spending for classroom expenditures for poorer schools in the study group extended from 34.91% to 84.89%,

- the statewide average of classroom expenditures for wealthier schools in the study group was 77.93%, while

- the statewide average of classroom expenditures for poorer schools in the study group was 64.01% (See Table 22).

Table 22 clearly shows that wealthier school systems spend almost fourteen percent more of their BEP funds for classroom items than poorer school systems. A line by line examination of BEP spending for schools in the study group suggests that wealthier school systems are more likely to spend BEP funds for teacher salaries and computers, while poorer school systems tend to spend more BEP funds for utility bills and buses. The spending of BEP funds, however, also appears to strongly reflect the perceived needs of each individual school system.

To examine the relationship between BEP funds and how they are spent a scatter plot was constructed. Table 23 shows the amount of BEP funds received per student in dollars and the percent of funds spent on classroom spending for all thirty five school systems in the study group. BEP

Table 22. Domain 3: Average Spending of BEP Funds for Selected Tennessee School Systems

Region	Fiscal Capacity	Average % Classroom Spending	Average % Nonclassroom Spending
East Tennessee	Wealthier	78.26%	21.74%
	Poorer	60.92%	39.08%
Middle Tennessee	Wealthier	79.63%	20.37%
	Poorer	65.51%	24.49%
West Tennessee	Wealthier	75.49%	24.51%
	Poorer	64.84%	35.16%
Statewide	Wealthier	77.93%	22.07%
	Poorer	64.01%	35.99%

From 1990 State of Tennessee TACIR Index and 1994-95 BEP Accountability Budget Summary

Table 23. Domain 3: BEP Funds Per Student for Selected Tennessee School Systems.

Region	Fiscal Capacity	School System	BEP Funds Per Student in Dollars	% Classroom Spending
East Tennessee	**Wealthier**	Hamilton County	$ 80.97	94.30
		Hawkins County	541.46	96.92
		Monroe County	763.23	45.50
		Knox County	135.02	90.78
		Bristol City	145.42	92.08
		Maryville City	257.51	94.15
		Harriman City	586.72	65.45
		Dayton City	926.75	46.84
	Poorer	Polk County	622.41	53.72
		Morgan County	732.03	60.03
		Union County	1076.80	49.29
		Newport City	510.43	80.62

From 1994-95 BEP Accountability Budget Summary.

Table 23. Domain 3: BEP Funds Per Student for Selected Tennessee School Systems (con)

Region	Fiscal Capacity	School System	BEP Funds Per Student in Dollars	% Classroom Spending
Middle Tennessee	**Wealthier**	Montgomery County	$ 644.69	89.46
		Sumner County	554.89	92.12
		Dickson County	608.66	73.95
		Trousdale County	786.11	54.24
		Davidson County	135.59	100.00
		Manchester City	323.82	83.28
		Richard City	673.85	64.38
	Poorer	Cheatham County	844.00	70.87
		Overton County	781.40	68.75
		Lewis County	774.22	61.12
		Fentress County	688.90	49.01
		Clay County	630.15	64.01
		Fayetteville City	512.97	79.29

From 1994-95 BEP Accountability Budget Summary.

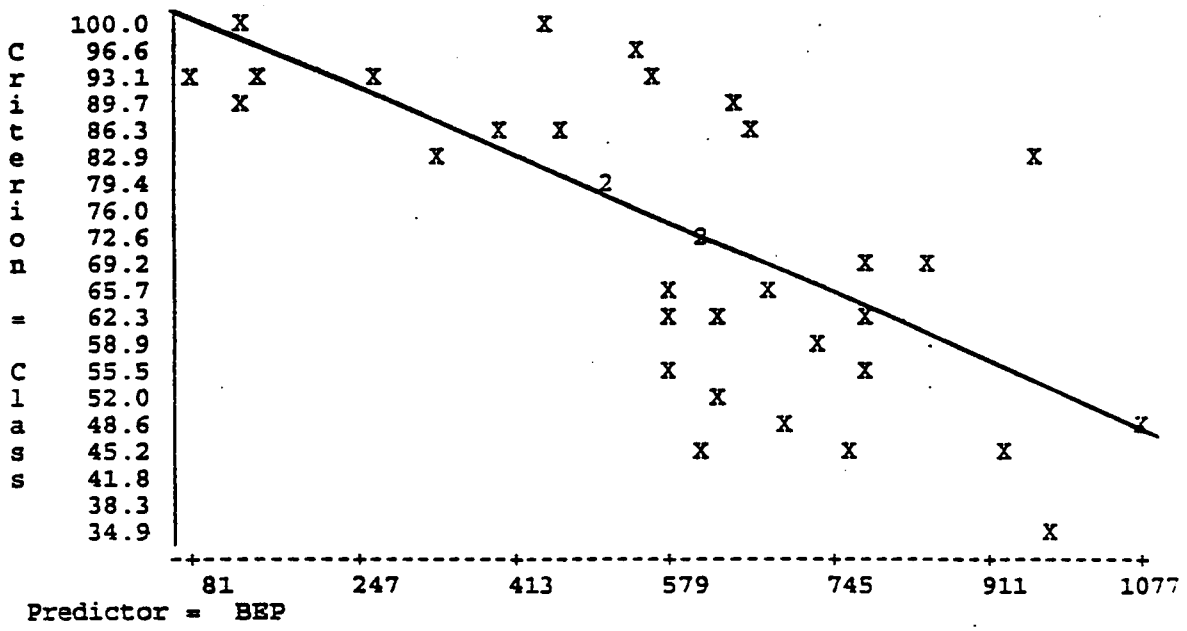
Table 23. Domain 3: BEP Funds Per Student for Selected Tennessee School Systems (con)

Region	Fiscal Capacity	School System	BEP Funds Per Student in Dollars	% Classroom Spending
West Tennessee	**Wealthier**	Henry County	$ 619.70	45.20
		Shelby County	462.97	86.42
		Memphis City	396.25	86.38
		Humbolt City	603.79	71.35
		South Carroll City	438.51	100.00
		McKenzie City	577.41	63.57
	Poorer	Lake County	582.43	56.41
		Tipton County	963.21	83.15
		Hardeman County	974.01	34.91
		Bells City	659.19	84.89

From 1994-95 BEP Accountability Budget Summary.

Table 24. **Domain 3:** **Scatterplot**

Procedure: Pearson Correlation



Criterion =

% Classroom Spending of BEP Funds

Predictor =

BEP Funds Per Student

From Stat Star (1994)

Table 24. **Domain 3:** **Scatterplot (con)**

MATRIX OF r (UPPER) AND r^sq (LOWER) VALUES:

	Class	
BEP	-0.712*	BEP
	0.506	
	Class	

* = P-VALUE < .05 (2-tail)

TABLE OF MEANS AND STANDARD DEVIATIONS:

	N	MEAN	SD	estSD
BEP	35	589.013	241.060	244.580
Class	35	72.356	18.109	18.373

The PEARSON CORRELATION COEFFIIENT (r) between variables BEP and Class is computed using the formula:

r = SUM [(X-Mx) * (Y-My)] / (N * Sx * Sy)

= -108723.112 / (35 * 241.060 * 18.109)
= -108723.112 / 152785.038
= -0.712

The COEFFICIENT OF DETERMINATION (r^SQ) is obtained by squaring r, yielding 0.506.

From Stat Star 1994

funds received per student in dollars was plotted on the X-axis and ranged from a low of $80.97 per student to a high of $1,076.80 per student. The percent of BEP funds spent for classroom uses was plotted on the Y-axis and ranged from a low of 34.91% to a high of 100%. An analysis of the data calculated a slope of -0.053 and a y-intercept of 103.843. The best-fit line revealed a strong negative correlation of -0.712 between BEP funds received per student and the amount of funds spent in the classroom. As predicted, this suggests that the more BEP funds a poorer school system receives per student the lower the percentage of funds spent in the classroom. Wealthier school systems receive less BEP funds per student, but spend a greater percentage of their BEP funds in the classroom (see Table 24).

Question three addressed three of the major findings of the Tennessee Small Schools lawsuit. They include:

> finding (5) that poorer school districts offer less curriculum choices to their students than wealthier districts;
>
> finding (7) a direct correlation exists between dollars expended and the quality of education a student receives, and

finding (8) some of the poorer school districts cannot comply with the states minimum standards because of inadequate funding.

Research Question 4

"What are the strengths and weaknesses of the Better Education Program?"

Question four addressed all eight of the major findings of the Tennessee Small Schools lawsuit.

They include:

finding (1) the TFP funding scheme had produced great disparities in available revenues for local school districts,

finding (2) because of lack of fiscal capacity, there is little poorer school districts can do to offset county sales tax disparities,

finding (3) per classroom spending varied widely throughout Tennessee,

finding (4) the wide disparity is related to differences in fiscal capacity and not inadequate local effort,

finding (5) poorer school districts offer less curriculum choices to their students than wealthier districts,

finding (6) poorer school districts fail in their efforts to retain teachers,

finding (7) a direct correlation exists between dollars expended and the quality of education a student receives, and

finding (8) some of the poorer school districts cannot comply with the state's minimum standards because of inadequate funding.

The first strength of the BEP is the increased amount of funds it has provided for local school systems. When the BEP is fully funded for the 1997-1998 school year, it will provide approximately $664 million additional funds for education. This program did not redistribute existing funds as once feared, but created a larger revenue source for all public school systems.

A second strength of the BEP is a funding scheme that is simplified and much improved when compared to the TFP. The creation of the BEP phased out the Tennessee Foundation Program and eliminated a dozen categorical grants which were incorporated into the BEP. The funding basis for the BEP is now fiscal capacity calculated from sales tax base, property tax base, and income as opposed to just property tax base under the TFP. The BEP also provides a greater equalization of the local share of school funds.

A final strength of the BEP is that the state of Tennessee now provides

67% of the funds needed for education, compared to the old standard of 45%. Local school systems must follow some restrictions while spending their BEP funds, but appear to have great latitude in spending choices for classroom and nonclassroom items in response to perceived local needs.

A major weakness of the BEP is its failure to address the inequity in teacher's salaries found across Tennessee. Salary differences of over $15,000 existed in 1992, when the BEP was created, for teachers of similar experience and training. This salary disparity makes it difficult for poorer school districts to attract and retain quality teachers. A court challenge to the BEP, has resulted in the creation of a salary dollar equity program. During the 1995-96 school year, over $8 million was awarded to 49 school systems to improve teacher salaries. These equity dollars were distributed as across the board pay raises, improved salary schedules, or simply divided among the more experienced teachers.

Other weaknesses of the BEP includes that it will take six years for the program to be fully funded. Also, an excellent opportunity was missed by state legislatures to revamp Tennessee's tax structure and put in place a more

progressive funding mechanism. Instead, the legislatures simply raised the already high sales tax and asked lower and middle-class Tennesseans to shoulder the increased cost of public education.

A third weakness of the BEP is that the program did not address the need for curricular reform in Tennessee's public schools. The same curriculum is not offered, for example, in all public high schools. The BEP's equalization of funds provision could be used to ensure that a more standardized curriculum is found in all public schools.

Finally, one other higher controversial aspect tied to the BEP must be addressed. This is the value-added assessment program developed by University of Tennessee professor Dr. William Sanders. The value-added assessment program is designed to measure a student's yearlong progress, the effectiveness of individual schools, and the effectiveness of individual teachers. Recent efforts have delayed the release of individual teachers' value-added scores. Assessment of learning is extremely difficult to measure and the Sander's statistical model appears to be fair and provides must needed data on student achievement. However, the accountability issue must

not be allowed to destroy the improved funding mechanism and the rest of the Better Education Program.

CHAPTER V

SUMMARY, CONCLUSIONS, DISCUSSIONS, AND RECOMMENDATIONS

Introduction

This final chapter consists of a summary of the study and the conclusions reached at its completion. Also, a discussion of specific findings and recommendations for future research are included. This chapter is organized into five sections. Section one contains a summary of the research study. Next, section two includes a summary of the finding. Section three discusses the conclusions reached in the study. A general discussion of the research findings and conclusion is presented in section four. The final section concludes the study with recommendations for future research.

Summary of the Study

Public schools are a vital, yet somewhat controversial, cornerstone of American society. Much debate has centered on the question, what is the purpose of education? Many authors believe that several key aspects of education are included in the political, social, and economic goals of public schooling.

The next important question to be answered is how to pay for public education. Amendment X of the United States Constitution reserves the control of public education to the individual states. Therefore, most of the funding for public education in the United States comes from state foundation programs. Recent litigation has shifted an even greater burden of the expense of public education to the state government. As local funding of public schools has diminished, so has the reliance on property taxes to fund education.

A thorough review of literature revealed twenty years of lawsuits nationwide as many state's educational funding schemes were legally

challenged. Inequity in the distribution of funds and the inability of local school districts to raise adequate funding through property taxes are fundamental issues found in most of these cases. Other key issues include justiciability, educational clause challenges, and equal protection challenges. In Tennessee, the *Small School Systems vs. McWherter* lawsuit led to the creation of a new educational funding method, the Better Education Program.

The purpose of this study was to evaluate the effectiveness of the BEP in equalizing available educational opportunities in select Tennessee public schools. Two key areas that were investigated included teacher salaries and BEP spending patterns. The study was designed to obtain information, reach conclusions, and add to the limited amount of literature concerning the BEP. The following research questions guided the study:

Question 1. Has the Better Education Program resulted in more funds being allocated for educational programs in Tennessee's public schools?

Question 2. Has the Better Education Program been effective in reducing the salary gap between teachers from wealthier and poorer school

districts?

Question 3. Do wealthier and poorer school districts utilize their Better Education Program funds differently or in a similar manner?

Question 4. What are the strengths and weaknesses of the Better Education Program?

Two specific sets of data were analyzed for this study. The first phase of the study utilized salary data, published in the TEA News, to compare teacher salaries. Geographic location (East, Middle, or West Tennessee), type of system (city or county), and fiscal capacity (wealthier or poorer based on the TACIR index rating for the county where the school system was located) was used to select a stratified random 25% sample from Tennessee's 139 public school systems. The 35 schools selected for this sample were used in both phases of the study. Teacher data were used to calculate a salary gap. The Fisher median sign test was used to test the significance of the salary gaps.

The second phase of the study was intended to analyze and compare the spending patterns of selected wealthier and poorer school districts. BEP

Accountability Budget Summaries for fiscal year 1994-95 were used to compare expenditures for classroom and nonclassroom items. This data were published in each school system's 21st Century Schools Report Card. A Pearson Correlation scatterplot was used to identify the relationship between the amount of BEP funds received per student and the amount of BEP funds spent in the classroom.

Summary of Findings

Question 1. Has the Better Education Program resulted in more funds being allocated for educational programs in Tennessee's public schools?

The BEP, when fully funded in July 1997, will include over $660 million of additional funds raised to fund public schools. As was initially feared, wealthier school systems did not have their funds shifted to poorer school systems. Instead, every school system in Tennessee received additional funds from the BEP. A permanent one-half percent increase in the state sales tax was used to raise these additional funds. Many people

believed that the BEP should have been funded by a more progressive tax, such as a state income tax.

Question 2. Has the Better Education Program been effective in reducing the salary gap between teachers for wealthier and poorer school districts?

The Education Reform Act of 1992, which created the Better Education Program, initially contained legislation which strictly forbid using BEP funds to improve or equalize teacher salaries. After the creation of the BEP, however, the State of Tennessee funded three consecutive five percent per year pay raises for all Tennessee teachers. This fifteen percent pay raise, moved teacher salaries in Tennessee form 48th to 28th nationally. Table 19 clearly shows that despite this marked increased in pay, the salary gap between teacher pay in wealthier and poorer school systems continued to widen. A Fisher median sign was used to test the significance of this increasing pay discrepancy. At both the bachelor's degree with minimum experience (beginning teacher) and master's degree maximum experience (highly experienced teacher) levels the increased salary gap fell short of

significance. The McWherter v. Small School System lawsuit was renewed in February, 1995 to address teacher salaries and to speed up the full funding of the BEP.

In response to the Tennessee Supreme Courts ruling, over $8 million of BEP funds were awarded to forty-nine public school systems as salary equity funds. The local systems receiving the equity funds were required to provide matching funds at an average of 13% or over $1 million total from all systems (TEA NEWS, January 1996). The state minimum salary schedule was not amended to avoid litigation from wealthier school systems. Also, local school systems were allowed to distribute the funds to meet perceived local needs.

Question 3. Do wealthier and poorer school districts utilize their Better Education Program funds differently or in a similar manner?

To study the BEP spending patterns of wealthier and poorer school systems, the same 25% stratified random sample of 35 school systems used to study domain two was used for domain three. The BEP Accountability Budget Summary for Fiscal Year 1994-95 was used to calculate the percent

of BEP funds spent on classroom versus nonclassroom expenditures (see Tables 16-18) (21st Century Schools Report Card, 1995). An analysis of BEP spending revealed several pieces of data:

- the range of spending for classroom expenditures for wealthier schools in the study group ranged from 45.2% to 100%,

- the range of spending for classroom expenditures for poorer schools in the study group extended from 34.91% to 84.89%,

- the statewide average of classroom expenditures for wealthier schools in the study group was 77.93%, while

- the statewide average of classroom expenditures for poorer schools in the study group was 64.01% (See Table 22).

Wealthier schools clearly spent a greater percentage of their BEP funds for classroom expenditures than the poorer school systems in the study group. A line item analysis of BEP spending patterns strongly suggests that local school systems spend their BEP funds to meet perceived local needs.

A Pearson correlation scatterplot was constructed for the amount of BEP funds received per student versus the percent of BEP funds spent in the classroom. The best-fit line revealed a strong negative correlation of -0.712. This suggested that the more BEP funds a poorer school system received per

student, the lower the percentage of funds spent in the classroom. Conversely, wealthier school systems receive less BEP funds per student, but spend a higher percentage of their BEP funds in the classroom (see Table 24).

Question 4. What are the strengths and weaknesses of the Better Education Program.

The major strength of the BEP is that it increased funding for public education in Tennessee by raising an additional $664 million. The State of Tennessee now provides 67% of the funds needed for education, compared to the old standard of 45%.

Also, the BEP has simplified the funding scheme used for Tennessee's school systems. The new funding basis for the BEP is now fiscal capacity calculated from sales tax base, property tax base, and income as opposed to just property tax base under the Tennessee Foundation Program. The creation of the TACIR index to evaluate a county's fiscal capacity, was a major step in creating a fairer distribution of BEP funds.

A major weakness of the BEP was its failure to address the inequity

found in teachers' salaries across Tennessee. A 1995 court challenge regarding teacher salaries, has resulted in the creation of a salary dollar equity program. During the 1995-96 school year, over $8 million were awarded to 49 school systems to improve teacher salaries. The equity dollars were distributed as across the board pay raises, improved salary schedules, or simply divided among the more experienced teachers.

A second weakness of the BEP is that it will take over six years to fully fund the program. The funding for the BEP came from increasing the already high state sales tax by 1/2 percent.

Other weaknesses of the BEP includes the failure to address the need for curricular reform in Tennessee's public schools and the connection between the highly controversial value-added assessment program and the BEP.

Conclusions

This study was undertaken in order to determine the effectiveness of the Better Education Program in equalizing available educational opportunities in select wealthier and poorer Tennessee public schools. A 25% stratified, random sample of thirty-five Tennessee school systems were selected for inclusion in the study. The first area evaluated was teacher salaries at the BA minimum experience level and at the MA maximum experience level. Mean salaries were used to calculate a salary gap, and the Fisher Median Sign test was used to evaluate the significance of the salary gap. The second phase of the study was designed to evaluate spending patterns of BEP funds by wealthier and poorer school districts. The percentage of BEP funds spent in the classroom was calculated for each school system in the study group. A Pearson Correlation Scatterplot was drawn to examine the relationship between BEP funds received per student and the percent of BEP funds spent in the classroom. Based on an evaluation of nationwide litigation regarding educational funding, the analysis of

collected data and subsequent findings that emerged, the following conclusions can reasonably be determined:

1. The Better Education Program is effective in increasing the amount of funding for public education in Tennessee.

2. The Better Education Program did not shift funds from wealthier to poorer school systems, but instead raised additional dollars for education through a one-half percent increase in the State's sales tax.

3. The Better Education Program has created a more equitable distribution of funds for public education. Major innovations include the creation of the TACIR Index and fiscal calculations based on sales tax base, property tax base, and income.

4. A salary gap exists at both the BA and MA salary levels in Tennessee. However, no significant increase in the gap occurred form 1988 through 1995, even through the BEP could not be used to improve teacher salaries.

5. The awarding of $8 million as salary equity funds for the 1995-96 school year was a small, but significant first step toward equalizing teacher

pay.

6. Better Education Program funds are spent on perceived local needs.

7. As the amount of BEP funds received per student increases, the amount of BEP funds spent in the classroom decreases.

8. The Better Education Program has several strengths. Funding for education in Tennessee has increased, the State of Tennessee now supplies a greater percentage of funds (67%), and the new funding system produces a more equitable distribution of funds.

9. A major weakness of the Better Education Program was its inability to address the inequity in teacher's salaries found across Tennessee. The creation of salary equity funds is a much needed first step in addressing the salary gap issue.

10. Several changes in the Better Education Program could greatly alter Tennessee's public schools. A revised funding scheme could result in a more progressive tax structure in Tennessee. Also, a more standardized curriculum could be implemented using BEP equalization funds.

Discussion

During the past two hundred years, national, state, and local political attention has focused on the purpose of public education in the United States. The debate soon shifted to how should we pay for public education. Today, the question raised is: Who should pay for public education?

During the 1950's and 1960's public education grew rapidly as enrollments peaked throughout the United States. Swelling enrollments created financial problems in the 1970's as revenues became limited. In 1971, a landmark California court case, *Serrano v. Priest*, marked the first successful attack on striking down a discrimatory statewide funding scheme. When the educational funding issue reached the U.S. Supreme Court in 1973 (*Rodrigues v. San Antonio Independent School District*), however the Supreme Court ruled that the right to an education was a matter reserved for state courts.

In Tennessee, the funding scheme was challenged by the *Tennessee Small School Systems v. McWherter* lawsuit in July, 1988. Before the

lawsuit was settled, the state legislator created a new funding scheme designated the Better Education Program.

The purpose of this study was to evaluate the effectiveness of the BEP in equalizing available educational opportunities in select Tennessee public schools. Two key areas that were examined included teacher salaries and BEP spending patterns.

Based on the findings and conclusion, the tasks to evaluate the effectiveness of the BEP in equalizing available educational opportunities has been accomplished. This study was analytical in nature; findings and conclusion reached apply specifically to the Tennessee Better Education Program and the thirty-five school systems selected for the study group. The researcher does not intend for the results to apply to any other educational funding program of this type found throughout the nation.

Four basic research questions guided this study. The instruments used were designed to reach conclusions concerning the four research questions. "Has the Better Education Program resulted in more funds being allocated for educational programs in Tennessee's public schools?" The answer is yes.

By 1997, over $664 million in additional funds will be generated annually for the BEP by a 1/2 percent increase in the state's sales tax. No funds were shifted from wealthier to poorer school systems as was initially feared. Instead, the funding pot has been significantly increased.

"Has the Better Education Program been effective in reducing the salary gap between teachers from wealthier and poorer school districts?" The answer is no. Initial BEP legislation forbid using BEP funds to improve teacher salaries. Between 1988 and 1995 the teacher salary gap increased, but not at a significant level. In February, 1995 the Tennessee Supreme Court addressed the issue of teacher salaries and authorized the use of BEP funds to equalize teacher pay. During the 1995-96 school year, forty-nine school systems received over $8 million in salary equity funds.

"Do wealthier and poorer school districts utilize their Better Education Program funds differently or in a similar manner?" The answer is "differently". The study found that on the average, wealthier school systems spent 14 percent more of their BEP funds for classroom uses than poorer school systems. A Pearson Correlation scatterplot revealed a strong negative

correlation between the amount of BEP funds received per student and the percent of funds spent in classrooms. As poorer school systems received more BEP funds, they spent less funds for classroom items. In general, it can be concluded that most school systems base the spending of BEP funds on perceived local needs.

"What are the strengths and weaknesses of the Better Education Program?" Clearly, the major strength of the BEP is increased funding for Tennessee's public school systems. A more equitable fund distribution system based on the TACIR Index is an equally important strength of the BEP.

The major weakness of the BEP was its failure to address the issue of teacher pay. The creation of BEP salary equity funds in 1995 was a positive first step taken to alleviate this teacher pay disparity.

It seems apparent that the results of this study are positive and support the continued development of the Better Education Program. It is important to note that the BEP may be linked with future efforts to develop a more progressive tax scheme in Tennessee, standardize the curriculum statewide,

and to continue value-added assessment of teachers, schools, and school systems.

Recommendations

A variety of educational funding lawsuits and newly created funding programs are in various stages of development and implementation across the United States. Many opportunities for research concerning new and innovative funding schemes are available. This analytical study explored many components of the Better Education Program in Tennessee.

The data collected and findings and conclusions presented in this study support the continued implementation of this program and the effectiveness of similar programs nationwide. The effectiveness of the Better Education Program requires further study. Recommendations for program implementation and further research include the following:

1. The distribution of salary equity funds should be monitored to evaluate their effectiveness in closing the teacher salary gap.

2. Analysis should be conducted of BEP line item spending patterns to determine if BEP spending guidelines should be revised.

3. The Tennessee tax structure should be reviewed to see if a more equitable funding method exists for the BEP. This study could be tied to other studies involving lotteries and a Tennessee state income tax.

4. The value-added assessment program has many direct links to the BEP program. A study should be conducted regarding the effect on the BEP if the value-added assessment program is revised or eliminated.

5. Attempts to link statewide curricular reform to the BEP should be studied as to their possible effect on the BEP.

6. Many other Southeastern states, such as Kentucky and Georgia, are at various stages of revising their educational funding schemes. A regional study should be conducted to identify significant similarities and differences in reform attempts throughout the region.

7. A national reform study should also be conducted. This study may reveal significant regional trends or point out a nationwide pattern of educational finance reform.

8. Lawsuits should continue to be monitored for any changes in the political climate regarding the financing of public education. Vouchers and school choice may develop into important legal issues regarding school finance.

9. A study should be conducted on the effect of the wording of state constitutions in shaping the financial reform programs for education.

10. Full state funding should be examined in states like Hawaii and Florida, to see if a similar funding scheme would improve education in Tennessee.

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APPENDIXES

APPENDIX A

Teacher Salary Data for Selected Tennessee Public School Systems

County System	1988-89		1994-95	
	BA Min	MA Max	BA Min	MA Max
Cheatham	17,487	24,529	22,149	30,549
Clay	16,925	21,575	21,115	26,665
Cumberland	17,771	23,853	22,511	29,979
Davidson	18,200	31,304	23,188	39,023
Fentress	17,550	22,447	21,947	27,952
Hamilton	18,433	28,267	23,659	38,465
Hardeman	17,015	23,305	21,795	30,140
Hawkins	17,225	23,250	21,970	29,475
Henry	17,305	23,715	21,895	30,260
Lake	17,642	22,975	22,770	29,126
Lewis	17,230	21,880	21,670	27,220
Knox	18,040	27,260	22,785	32,761
Montgomery	18,500	26,430	22,815	32,850
Morgan	16,999	22,467	21,670	28,320
Overton	17,377	22,244	21,670	27,860
Polk	17,013	24,681	21,573	30,869
Shelby	20,238	30,287	25,885	38,706
Sumner	18,030	26,195	22,920	33,180
Trousdale	17,519	22,169	21,876	27,426
Union	17,686	22,436	21,989	29,082

From TEA News January 1989 and March 1995.

APPENDIX A

Teacher Salary Data for Selected Tennessee Public School Systems

City System	1988-89		1994-95	
	BA Min	MA Max	BA Min	MA Max
Bells	17,305	21,955	21,995	27,545
Bristol	21,300	29,860	27,580	37,010
Chattanooga	19,000	29,742	22,585	36,019
Fayetteville	17,931	24,848	22,711	30,965
Harriman	17,535	26,533	23,071	33,088
Humbolt	18,205	24,740	22,810	30,532
Manchester	19,050	27,157	24,052	34,329
Maryville	19,085	30,536	24,225	38,760
McKenzie	18,130	24,235	23,044	30,382
Memphis	19,100	26,423	25,885	38,706
Newport	17,455	24,350	24,350	31,105
Richard	17,150	24,813	21,721	31,265
South Carroll	17,900	23,028	22,920	29,001

From TEA News January 1989 and March 1995.

APPENDIX B

1994-95 Spending Summary of Selected BEP Funds in Tennessee

COUNTY SYSTEMS	FUNDS SPENT FOR CLASSROOMS	%	FUNDS SPENT FOR NONCLASSROOMS	%
Cheatham	3,662,279	70.87	1,505,521	29.13
Clay	506,985	64.01	285,115	35.99
Davidson	9,541,000	100.00	0	0.00
Fentress	778,222	49.01	809,697	50.99
Hamilton	1,819,041	94.30	109,959	5.70
Hardeman	1,629,262	34.91	3,037,231	65.09
Hawkins	3,431,083	96.92	108,967	3.08
Henry	1,004,352	45.20	1,217,888	54.80
Knox	6,392,344	90.78	648,956	9.22
Lake	359,125	56.41	277,475	43.59
Lewis	927,077	61.12	589,618	38.88
Monroe	1,652,207	45.50	1,979,243	54.50
Montgomery	11,752,325	89.46	1,383.975	10.54
Overton	1,643,446	68.75	746,861	31.25
Polk	740,270	53.72	637,744	46.28
Shelby	10,780,165	86.42	1,693,835	13.58
Sumner	10,751,949	92.12	919,151	7.88
Trousdale	497,138	54.24	419,462	45.76
Union	1,477,363	49.29	1,520,073	50.71

From 1990 State of Tennessee TACIR INDEX and 1994-95 BEP Accountability Budget Summary.

APPENDIX B

1994-95 Spending Summary of Selected BEP Funds in Tennessee

CITY SYSTEMS	FUNDS SPENT FOR CLASSROOMS	%	FUNDS SPENT FOR NONCLASSROOMS	%
Bells	179,070	84.89	31,870	15.11
Bristol	493,163	92.08	42,437	7.92
Chattanooga	1,010,950	84.47	185,850	15.53
Fayetteville	423,386	79.29	110,614	20.71
Harriman	648,594	65.47	342,375	34.53
Humbolt	946,868	71.35	380,262	28.65
Manchester	307,976	83.28	61,824	16.72
Maryville	912,333	94.15	56,667	5.85
McKenzie	518,300	63.57	297,000	36.43
Memphis	25,370,740	86.38	4,000,260	13.62
Newport	306,968	80.62	73,814	19.38
Richard	141,000	64.38	78,000	35.62
South Carroll	170,581	100.00	0	0.00

From 1990 State of Tennessee TACIR INDEX and 1994-95 BEP Accountability Budget Summary.

VITA

Charles Thomas Frye, Jr. was born on March 13, 1957 in Maryville, Tennessee. Currently he teaches algebra and biology, and is an assistant football coach at Maryville High School. A ten year teaching veteran, he has also spent three years as the director of the Alternate School for the Alcoa City Schools in Alcoa, Tennessee.

He spent six years on active duty in the Air Force as a navigator/bombardier on B-52 and B-1 bombers. Currently, he is finishing his seventh year as a part-time KC-135 navigator for the Tennessee Air National Guard stationed at McGhee-Tyson Airbase in Knoxville, Tennessee.

He is married to the former Kim Berrong of Maryville, Tennessee and has two sons, Brandon Thomas (11) and Robert Andrew (8).