Variability of student achievement attributed to school district wealth
by Joyce Jeanne Ley

A thesis submitted in partial fulfillment of the requirements for the degree of Doctor of Education
Montana State University

Abstract:
The major problem of this study was to determine if there was a statistically significant amount of variability in normal curve equivalents of mean scores of third and sixth grade student reading and mathematics achievement tests attributed to school district taxable valuation per student and total instruction-related expenditures per student. The secondary problem of this study was to determine if there was a statistically significant amount of variability in the dependent variables of normal curve equivalents of mean scores on third and sixth grade student reading and mathematics achievement tests attributed to each of the following independent variables: beginning teacher salaries, maximum teacher salaries, percentage of students eligible for free and/or reduced lunch, district student enrollment, and teacher-student ratio.

For both the major and secondary studies, multiple regression procedures were used to determine if the independent variables contributed significantly to the variability of third and sixth grade student reading and mathematics achievement. The F-test was applied to determine if the R2 was significant, and forward stepwise procedures were applied when the R2 was significant.

The conclusions of the major problem of this study suggested that taxable valuation and instruction-related expenditures do not contribute significantly to the variability of student achievement. Students from the poorer school districts scored as well on reading and mathematics achievement tests as did students from the wealthier districts. The conclusions of the secondary problem suggested that third grade student reading achievement was influenced by the percentage of students eligible for free and reduced lunch and beginning teacher salaries, particularly in Class 3 school districts, and that student achievement in third and sixth grade mathematics, and sixth grade reading was influenced by maximum teacher salaries.

The major recommendations for further study include: (1) a determination of enhancement/enrichment opportunities for preschool children in Class 3 school districts, (2) school district-community partnerships to provide enhancement programs for primary-level students, (3) investigation of statewide programs for continued staff development and improved salaries for experienced teachers, and (4) a determination of the relationship between school district wealth and achievement of high school students.

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by

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A thesis submitted in partial fulfillment
of the requirements for the degree

of

Doctor of Education

MONTANA STATE UNIVERSITY
Bozeman, Montana

May 1989

APPROVAL

of a thesis submitted by

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This thesis has been read by each member of the graduate committee and has been found to be satisfactory regarding content, English usage, format, citations, bibliographic style, and consistency, and is ready for submission to the College of Graduate Studies.

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Date June 8, 1989

ACKNOWLEDGEMENTS

I wish to acknowledge and thank my doctoral committee members: Dr. Donald Robson, despite his demanding schedule, was never too busy to provide assistance with the statistics used in this study; Dr. Robert Thibeault offered professional commentary for this study; Dr. Gerald Sullivan served as an outstanding editor and grammarian; Dr. Karen Carlson provided insightful perspectives for the study; and Dr. William Locke, graduate representative, took special interest in the study and furnished beneficial statistical guidelines. Finally, I would like to extend special thanks and gratitude to Dr. Ardy Clarke, chairperson, for her guidance and commitment to my work. She has become both a professional and personal friend to whom I will always be indebted.

I would also like to acknowledge the Montana Office of Public Instruction, the Montana Education Association, the Montana School Boards' Association, and the school districts that were involved in the study. The assistance they gave to collection of data needed for this study is appreciated.

My parents, Herbert and Irene Ley, deserve credit for instilling within me the value of education. Although my father is deceased, my memory of him provided inspiration to complete this doctoral study. My mother has encouraged me throughout my life, and her assurance in these academic endeavors was one more extension of her unselfish devotion to her daughter. Thank you, Mom; you truly are my oldest and dearest friend.

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ABSTRACT

The major problem of this study was to determine if there was a statistically significant amount of variability in normal curve equivalents of mean scores of third and sixth grade student reading and mathematics achievement tests attributed to school district taxable valuation per student and total instruction-related expenditures per student. The secondary problem of this study was to determine if there was a statistically significant amount of variability in the dependent variables of normal curve equivalents of mean scores on third and sixth grade student reading and mathematics achievement tests attributed to each of the following independent variables: beginning teacher salaries, maximum teacher salaries, percentage of students eligible for free and/or reduced lunch, district student enrollment, and teacher-student ratio.

For both the major and secondary studies, multiple regression procedures were used to determine if the independent variables contributed significantly to the variability of third and sixth grade student reading and mathematics achievement. The F-test was applied to determine if the R^2 was significant, and forward stepwise procedures were applied when the R^2 was significant.

The conclusions of the major problem of this study suggested that taxable valuation and instruction-related expenditures do not contribute significantly to the variability of student achievement. Students from the poorer school districts scored as well on reading and mathematics achievement tests as did students from the wealthier districts. The conclusions of the secondary problem suggested that third grade student reading achievement was influenced by the percentage of students eligible for free and reduced lunch and beginning teacher salaries, particularly in Class 3 school districts, and that student achievement in third and sixth grade mathematics, and sixth grade reading was influenced by maximum teacher salaries.

The major recommendations for further study include: (1) a determination of enhancement/enrichment opportunities for preschool children in Class 3 school districts, (2) school district-community partnerships to provide enhancement programs for primary-level students, (3) investigation of statewide programs for continued staff development and improved salaries for experienced teachers, and (4) a determination of the relationship between school district wealth and achievement of high school students.

CHAPTER 1

INTRODUCTION

Equality of educational opportunity has been a goal of American education since the earliest days of U.S. history (Rossmiller, 1986a). The initial goal was expanded beyond access to elementary education to include secondary education in the 1820s (Wood, Nicholson, & Findley, 1985). Prior to the 1970s, the general attitude of the American public was that the financing of public education was a state obligation mandated by the provisions of the 10th Amendment to the U.S. Constitution (Hack, 1978). This attitude was also held by state and federal courts. The U.S. Supreme Court ruled that segregation in public schools was unconstitutional in *Brown v. Board of Education of Topeka, Kansas* in 1954, but there was no specific mention of the financing of public education (Reutter, 1985). Disparities in educational revenues, expenditures, and opportunities existed, and challengers to systems that allowed disparities received only limited hearings and no resolution to their claims.

In *Rodriquez v. San Antonio Independent School District* (1973), the U.S. Supreme Court reaffirmed that education was a function reserved for the states under the 10th Amendment to the U.S. Constitution (Ornstein, 1978), and the

Court suggested that this issue be brought forth in state courts since most state constitutions mention education (Odden, McGuire, & Belschos-Simmons, 1983). The first case to successfully challenge a state's structure of school finance was that of *Serrano v. Priest* in California in 1971 (Hack, 1978). *Serrano* alleged that the existing structure of school finance was in violation of the California State Constitution because the state's school finance formula did not provide equality in terms of educational opportunity, educational expenditures per student, or tax burden; thus, it violated the equal protection clause of the state's constitution (Hack, 1978). *Serrano* was eventually heard by the California Supreme Court which held that financing of public education must not be based on the wealth of a school district (Friedman & Wiseman, 1978).

The political issue of school finance reform became a salient one during the 1970s and 1980s, and over half of the states have legislated reforms in the methods of financing public education (Alexander & Salmon, 1982). Montana's structure of financing public education was challenged in state district court by several Montana school districts in 1987. These districts contended that the existing school finance system denied equal protection to a basic system of quality education to many students (*Helena Elementary School District #1 et al. v. State of Montana,* 1988). The challenge was brought before Judge Henry Loble, and trial proceedings began in May 1987. Judge Loble issued his decision for the school districts on January 13, 1988. His decision was later upheld by the Montana Supreme Court *(Montana Supreme Court, #88-381).*

Judge Loble's decision focused on the equity of students' educational opportunities. The allegation of the plaintiff school districts was that Montana's school funding structure allowed for different levels of per-pupil expenditures. Testimony presented in the district court trial proceedings did not address student achievement. The relationship between school district expenditure levels and student achievement was not a consideration in Loble's decision.

The question of the correlation between school district wealth and expenditures with student achievement is particularly relevant and pertinent in the State of Montana. Because of the large number of students affected by disparities in school district wealth, it was appropriate that the data be examined to determine the correlation between school district wealth and expenditures and student achievement in Montana.

Statement of the Problem

The major problem addressed by this study was to determine if there was a statistically significant amount of variability in normal curve equivalents of mean scores of student reading and mathematics achievement tests which could be attributed to school district wealth.

The solution to this major problem allowed the researcher to determine if there was a statistically significant amount of variability in normal curve equivalents of mean scores of students' reading and mathematics achievement tests attributed to the independent variables of school districts' taxable valuation per

student and instruction-related expenditures per student. The dependent variables were normal curve equivalents of student reading and mathematics achievement mean test scores of third graders and sixth graders in Montana elementary school districts.

A secondary problem addressed by this study was to determine if there was a statistically significant amount of variability in the dependent variables of normal curve equivalents of mean scores of reading and mathematics achievement tests of third and sixth grade students attributed by each of the following selected independent variables.

(1) Beginning (base) teacher salaries in the districts

(2) Maximum teacher salaries in the districts

(3) Percentage of students eligible for free and/or reduced lunch

(4) District enrollment sizes, commonly referred to as average number belonging (ANB)

(5) Teacher-student ratios in the districts

The results of statistical analyses allowed the researcher to determine if there was a statistically significant amount of variability in the normal curve equivalents of mean scores of student reading and mathematics achievement tests for third and sixth grade students in Montana school districts attributed to each independent variable.

Need for the Study

The following research supports the need to expand upon the current body of literature:

(1) There were conflicting reports that student achievement was affected by school district wealth (Guthrie, Kleindorfer, Levin, & Stout, 1971). Mort, Reusser and Polley (1960) concluded that student achievement was greater when expenditure levels per student were higher. Coleman et al. (1966) found that student achievement was more affected by socioeconomic status and family backgrounds than by characteristics of school district wealth.

(2) A statistically significant relationship between beginning teacher salaries and student achievement was found in a study conducted by J.A. Thomas (Guthrie et al., 1971).

(3) There was an implication that there should be more centralized control of educational policy and educational spending at the state level to ensure equality of educational achievement (McGuire, 1983).

(4) Accountability was demanded by taxpayers and legislators. With increased educational revenues, controls and assessments were expected to ensure that money was being used for intended purposes. Testing for minimal competencies became a national norm, and anxiety increased because of nationwide evidence of falling pupil achievement. This raised the question as to whether money could produce quality education (Fuhrman, 1978).

(5) Programs of compensatory education carried out under Title I of the Elementary and Secondary Education Act of 1965 were unable to demonstrate a significant relationship between improved test scores and increased resources for schools (Levin, 1976).

(6) Over one-half of the chairpersons of state legislature education committees believed that student achievement tests were an adequate measure of learning in mathematics and reading, and two-thirds of those surveyed indicated that accountability of a school district was measured by good student achievement (President's Commission on School Finance, 1972).

(7) Bandy (1980) recommended that the Montana Foundation Program (the basis for Montana's system of school finance) be carefully reviewed with regard to the question of whether it would meet the test of equality of educational opportunity for students. Bandy stated, "Substantial increases in Foundation Program schedules would reduce vulnerability on questions of equity and equalization [of tax effort]" (Bandy, 1980, p. 77).

(8) Although some economically stressed school districts produced excellent students, Judge Henry Loble wrote in his 1988 state district court decision (*Helena Elementary School District #1 et al. v. State of Montana*):

> There can be no doubt that many students in the State . . . are not being provided with the educational opportunities that other students who reside in wealthier school districts receive as a matter of course.

Questions to Be Answered

The following research questions were answered in this study:

(1) Major Problem: Was there a statistically significant amount of variability in normal curve equivalents of school district mean scores on student reading and mathematics achievement tests at the third and sixth grade levels attributed to school district taxable valuation per student and instructional related expenditures per student?

(2) Secondary Problem: Was there a statistically significant amount of variability in normal curve equivalents of mean scores on student reading and mathematics achievement tests at the third and sixth grade levels attributed by the independent variables of beginning (base) teacher salaries, maximum teacher salaries, percentage of students eligible for free and/or reduced lunch, district ANB, and teacher-student ratios?

General Procedure

The sample for both the major and secondary problems of this study was the population of all public elementary school districts operating in Montana during the 1986-87, 1987-88, and 1988-89 school years with enrollment (ANB) of more than 50 students.

School districts in Montana did not use one standardized achievement test (Olson, 1987). For that reason, this study used normal curve equivalents of the mean test scores rather than the mean scores.

This study was conducted in 1989 using data from the 1986-87 school year. Information relative to the taxable valuations of school districts was obtained from the Application for Tax Levies and State Equalization (see Appendix D) for budget years of 1986-87, 1987-88, and 1988-89 and Trustees' Financial Summary for 1986-87. Data from 1986-87 was used because it was the most complete, current data available. The "Application" was the school district budget document reported by every school district to the respective County Superintendent of Public Instruction and to the Montana Office of Public Instruction. The Trustees' Financial Summary was the official record of expenditures made by a school district and was also reported to County Superintendents and the Montana Office of Public Instruction.

Budget items that were used to determine the instruction related expenditures per student were the following categories from school districts' general fund budgets:

(1) Item 1.10 -- Instructional Services, Regular Programs

(2) Item 1.20 -- Supportive Services - Instructional

(3) Item 1.22 -- Educational Media Services

(4) Item 2.10 -- Instructional Services, Special Programs

(5) Item 2.20 -- Transportation Services, Special Programs

(6) Item 3.10 -- Instructional Services, Vocational Programs

These six categories represented a minimum of 71 separate line items of the general fund budget. Data from school district budget documents were collected from records on file with the Montana Office of Public Instruction.

The amount of expenditures per student was based on actual expenditures for the 1986-87 school year as indicated in the 1988-89 general fund budgets and 1986-87 Trustees' Financial Summaries. The amounts for each category were added to determine the total amount of instruction-related expenditures for a school district. The total amount was divided by school districts' student enrollment (ANB) to determine the amount of instruction-related expenditures per student. ANB data were included in budget documents filed by school districts with County Superintendents and verified with the Montana Office of Public Instruction.

The following information was obtained from school districts, County Superintendents, Montana School Boards' Association (MSBA), Montana Education Association (MEA), and Montana Office of Public Instruction (OPI):

(1) Beginning (base) teacher salaries

(2) Maximum teacher salaries

(3) Percentage of students eligible for free and/or reduced lunch

(4) Normal curve equivalents of mean scores of reading and mathematics achievement tests for third and sixth grade students

One-way analysis of variance (ANOVA) statistical procedures were used to determine if there were statistically significant differences between school districts with achievement test and salary data and those without these data.

Multiple regression analysis was the statistical procedure applied to the data to determine the amount of variability each independent variable identified had on the dependent variables of normal curve equivalents of mean scores of third and sixth grade students' reading and mathematics achievement tests. The F test was applied to test the statistical significance of the multiple correlation coefficient (R^2). When the F-value was statistically significant, forward stepwise regression analysis was conducted to determine how much of the variability in student achievement was determined by each respective independent variable.

Limitations and Delimitations of the Study

Limitations

(1) The only socioeconomic variable included in this study was the percentage of students eligible for free and/or reduced lunch.

(2) No single standardized test was used by all school districts in Montana to measure student reading and mathematics achievement.

(3) Accuracy of instruction-related expenditures was limited to the accuracy of school districts' reporting of expenditures in the Trustees' Financial Summaries.

Delimitations

(1) This study was limited to the relationship between the wealth of school districts and student achievement.

(2) This study was concerned only with the correlation between the identified independent and dependent variables as they relate to Montana public elementary school districts in the defined population.

(3) This study was concerned only with the normal curve equivalents of mean scores of third and sixth grade students' reading and mathematics achievement tests.

(4) Teacher-student ratio reported in this study was not indicative of class size, but limited to the ratio of teachers to student enrollment as documented in the Application(s) for Tax Levies and State Equalization (school district budget documents).

(5) Instruction related expenditures included the total of all line items reported in each of the following general fund budget categories:

   (a) Item 1.10 -- Instructional Services, Regular Programs

   (b) Item 1.20 -- Supportive Services - Instructional

   (c) Item 1.22 -- Educational Media Services

   (d) Item 2.10 -- Instructional Services, Special Programs

   (e) Item 2.20 -- Transportation Services, Special Programs

   (f) Item 3.10 -- Instructional Services, Vocational Programs

(6) This study was limited to Montana public elementary school districts with a student enrollment of more than 50 students.

CHAPTER 2

REVIEW OF RELATED LITERATURE

On May 11, 1987, a case challenging the constitutionality of the present structure for the financing of education in Montana began trial proceedings before the First Judicial District Court of Montana, Lewis and Clark County, in Helena, Montana. Sixty-five Montana school districts and eight individuals joined in a suit against the State of Montana, the Montana Board of Public Education, and the State Superintendent of Public Instruction alleging that the State's school finance system denied equal protection to a basic system of quality education to many students. The allegation contended that the existing structure allowed for school districts to have different levels of expenditures per student, and the plaintiffs charged that the practice denied equal opportunities for student achievement. The District Court decision, issued by Judge Henry Loble on January 13, 1988, ruled in favor of the school districts with an order to the Montana State Legislature to restructure the system of educational funding. Judge Loble's decision stated, "Infringement, burden and denial [of equal opportunity] clearly exists," and he instructed the Montana Legislature to "search for and present an equitable system of school financing" (*Helena Elementary School District #1 et al. v. State of*

Montana, 1988). This case, like similar cases in other states, has brought attention to the question: What is the relationship between school district wealth and student achievement? This question was the focus of this study.

The review of literature on this subject has been grouped into two categories:

(1) Historical and legal issues related to the problem.

(2) Research which discussed a relationship between achievement and expenditure level per student.

History of the Problem

The concept of access to equal educational opportunity has been the basis for legal challenges in school finance cases focusing on unequal distribution of public resources used for education. In 1971, a case involving the issue of equal educational opportunities was heard in a federal district court in Texas. *Rodriquez v. San Antonio Independent School District* was based on the equal protection provisions of the 14th Amendment to the U.S. Constitution. However, the district court decision which held in favor of *Rodriquez*, was appealed and ultimately heard by the U.S. Supreme Court in 1973 (Ornstein, 1978).

The U.S. Supreme Court opinion in *Rodriquez* clarified that cases of this nature were a matter of states' rights and not a federal issue (Hack, 1978). In the Court's five-to-four decision, the lower federal district court ruling was

overturned on the basis that the U.S. Constitution made no explicit guarantee to the right of education, and that education was a function reserved for the states under the 10th Amendment to the U.S. Constitution (Burrup & Brimley, 1982; Odden et al., 1983). The 10th Amendment provides that powers not delegated to the federal government are reserved for the states (as long as the power is not prohibited for the states). This amendment is the source of "states' rights" (Reutter, 1985). The majority opinion of the U.S. Supreme Court in *Rodriquez* included the following four points:

(1) No group, because of poverty or property tax or income, was absolutely deprived of public education.

(2) The presence of relative deprivation was not sufficient to identify a suspected discriminated group.

(3) Low-income people lived in both rich and poor school districts.

(4) The importance of a service (in this case, public education) did not raise it to the level of a constitutionally protected right. (Ornstein, 1978)

John Coons (1978) presented the argument that education represented a fundamental human right in that public education played a vital role in maintaining the system of American democracy. He advocated that schools were the identified institutions designed to educate children, holding that education was a planned, continuous service that must be provided by the state, and society has the responsibility to see that children are given the educational services they need.

Since *Rodriquez*, over half of the states have had cases seeking reforms in the methods of financing public education argued before their high courts (Alexander & Salmon, 1982). The most publicized case has been that of *Serrano v. Priest* in California in 1971. *Serrano* alleged that the educational finance system, based on local property taxes, did not provide equal education because wealth in the various districts of California was unequal. *Serrano* resulted in three court rulings which all stated that financing of public education must not be based on the wealth of a school district. The decisions held that children in property-poor districts had been injured because lower expenditures per student resulted in disparities when compared to expenditures per student of property-rich districts. These disparities made the quality of a child's education a function of the wealth of his parents and his neighborhood. Consequently, there were disparities in the availability of educational opportunities (Friedman & Wiseman, 1978).

The various state court cases challenging the constitutionality of systems of school finance stemmed from equal protection clauses of state constitutions and/or state constitutional provisions for thorough and efficient educational systems (Hack, 1978). Equal protection related to equal access of students to educational resources, and efficient educational systems related to the just use of resources provided for education (Rossmiller, 1986a). State high courts used three primary standards in evaluating a school finance system to determine if it met constitutional requirements (Odden et al., 1983). These standards were fiscal neutrality, equal inputs, and equal outcomes. The principle of fiscal neutrality was that

expenditures per student should not systematically be related to school district property wealth per student. Equal inputs mandated that levels of spending were created to reflect the wealth of the state as a whole and not that of individual school districts. Equal outcomes mandated that preparation of students by the educational system provides adequate achievement (Odden et al., 1983).

Modern school finance reformers took the position that equality of educational opportunity must be defined as equality of outcomes (Rossmiller, 1986b). This was a shift from the attitudes that prevailed in the early part of this century when minimum standards were equated to resource inputs in monetary terms. The emergence of recent equity issues focused on educational processes rather than the previous exclusive concern with educational inputs (Rossmiller, 1986b).

Relationship Between Achievement and Expenditure Level

The relationship between student achievement and expenditures per student by school districts has been the object of continued research. Mort et al. (1960) concluded that the expenditure level of a school district is a highly important factor in achieving quality education. They noted that prior to 1950 there was general acceptance of a strong relationship between the expenditure level of school districts and the achievement level of students. The practice of increasing expenditure levels by school districts was viewed as a reflection of effort to improve the quality of education. Early beliefs held that expenditure levels

revealed more about the type of education a school system provided than any other factor (Mort et al., 1960).

In the studies by Mort et al. (1960) of school district expenditure levels, it was found that the concept that student achievement was greater when expenditure levels per student were higher was taken for granted. This cost-quality relationship was also assumed by Strayer and Haig as they conducted studies to determine an actuarial basis for determining cost levels of state foundation programs for education finance systems (Mort et al., 1960).

A study conducted by Thomas (1962), using stepwise multiple regression techniques, found a statistically significant relationship between student achievement and beginning teachers' salaries. This was supported by the study of Benson (1965) wherein per-pupil instruction related expenditures and teachers' salaries were related to student achievement. Cohn (1968) found that higher teacher salaries were related to higher gains in scores on achievement tests of high school students.

In 1966, the report on *Equality of Educational Opportunity*, commonly referred to as the Coleman Report, was presented to the U.S. Congress. The study consisted of a sample of 645,000 students from 4,000 public schools in the United States. Data were gathered in September and October of 1965 from third, sixth, ninth, and twelfth grades in all schools in the sample. Data were also collected from the first grade in one-half of the schools in the sample. The study

was sponsored by the U.S. Office of Education and mandated by Section 402 of the Civil Rights Act of 1964 (Coleman et al., 1966).

Coleman et al. (1966) found that variations in socioeconomic status and the family backgrounds of students accounted for more variation in student achievement than did variations in school characteristics. School characteristics included in the study were facilities, teachers, curriculum, and student body traits. Schools were found to be similar in their relationship to student achievement when the socioeconomic status of students was taken into account. Coleman et al. indicated that precautions should be taken with respect to interpretation of assessing the effects of school characteristics on student achievement. The analysis of this study found that when a relationship existed between school characteristics and achievement, it did not prove that the school characteristics caused the variations in student achievement. Coleman et al. suggested that it might be more preferable to study the effects of school characteristics through examination of educational growth over a period of time. Educational growth was defined as change in student achievement. The criterion of achievement in the study by Coleman et al. was a student's score on a verbal ability test that measured verbal skills through a vocabulary test. Conclusions offered by this study were as follows:

(1) The largest part of variation in student achievement was within the same school and not between schools.

(2) Only a small part of achievement variations resulted from school characteristics.

(3) There was indirect evidence to show that school characteristics affected the achievement of minority students more than non-minority students. (Coleman et al., 1966)

The findings of the Coleman Report were substantiated through evaluations of programs of compensatory education that were carried out under Title I of the Elementary and Secondary Education Act. The evaluations done in 1965 were unable to demonstrate a significant relationship between improved achievement test scores and increased resources for schools (Levin, 1976).

When Jencks et al. (1972) studied the relationship between student achievement and the percentage of students eligible for free lunch, they found that there was no relationship to verbal achievement after taking into account students' relationship to school social class. Although there was a slight relationship to reading scores, there was none indicated with mathematics scores.

In the evaluation of the Coleman Report by Jencks et al. (1972), they attributed the positive relationship between student achievement and school district expenditures to pupil-teacher ratio rather than a relationship between achievement and teacher salaries. Smith (1972) supported the analysis of Coleman et al. with respect to the existence of a weak relationship between student achievement and size of school and per-pupil expenditures. He added that reducing the

pupil-teacher ratio "may make no difference until instruction can be really individualized, which might require a pupil-teacher ratio of less than 10:1" (p. 283). Smith indicated that the Coleman Report had few schools with a ratio lower than 10-to-1; thus the effect of the ratio went unnoticed.

Rossmiller's (1986b) research on effective schools, conducted at the University of Wisconsin, addressed the issue of educational equity in terms of student achievement and expenditure levels per student. Variables included in his study were school administrative leadership, classroom management and discipline, student use of time while in school, expenditures per student, and home environment of students. The majority of these variables related to the way resources were used (processes) rather than to what resources were available. The research supported processes as being more important than the amount of resources; resources were not sufficient *per se* to guarantee better student achievement. Rossmiller concluded that research offers no proof that spending more money will bring forth better or more effective schools. Money was essential to purchase necessary equipment, supplies, and services for education, but abundance of these did not imply that better student achievement would result. More important than abundance of resources was how the resources were used.

Frohreich's (1986) research on effective elementary schools studied the issue of student access to monetary resources and its relationship to student academic achievement. Access to monetary resources was measured in expenditures per student, and student academic achievement was measured by performance on

standardized achievement tests. Cross-sectional and longitudinal analyses were completed on relationship and interaction on variables of student, teacher, and school district characteristics. The sample consisted of four public elementary schools located in four different school districts in Wisconsin. Approximately 240 students were included in the sample. The students in the sample were third graders in the 1979-80 school year, and they were part of the study through the fifth grade in the 1981-82 school year. Data collected for achievement variables consisted of reading and mathematics achievement test scaled scores on the Stanford Achievement Test. Differences between the scores from spring of 1980, spring of 1981, and spring of 1982 were used to determine gains or losses in scaled scores of each student. The progress of each student was used as a measure of effectiveness rather than mean scores of each group of students.

Instruction related costs were independent variables and achievement variables were the dependent variables. A regression analysis was run for each possible combination of cost and achievement variables. The correlations between all cost variables and all achievement variables were negative. As costs increased, student achievement scores declined when all students were grouped together. When students in special education programs were included, the F-values were statistically significant; when they were excluded, there was no significance. This study indicated that when more resources were spent on students with special needs, there were increases in student achievement. Frohreich did not make generalizations about these findings but indicated that most micro-analyses had not

found significant relationships between costs (expenditure levels) and student achievement (Frohreich, 1986).

The emphasis of research has been on who paid for education and who received it, but limited knowledge has been revealed about the benefits of the expenditures. The focus of recent research has been on how schools and individuals reacted to various financing plans, but there was little evidence that available research was being used to alter existing policies that affected resource distribution systems (Frohreich, 1986).

Jencks (1972) made a similar observation with respect to use of resources. "If schools continue to use their resources as they now do, giving them more resources will not change children's test scores" (Jencks, 1972, p. 97). Although resource allocation produced increased achievement of students in some communities, this was not universally true; thus, "Legislators, school boards, and school superintendents cannot expect that any general policy which simply provides more school resources will raise children's test scores" (Jencks, 1972, p. 97).

CHAPTER 3

PROCEDURES AND METHODOLOGY

The major problem of this study was to determine if there was a statistically significant amount of variability in student achievement attributed to school district wealth expressed in terms of taxable valuation and instruction-related expenditures. For the secondary problem of this study the researcher determined if there was a statistically significant amount of variability in the dependent variables of student reading and mathematics achievement contributed to by each of the following selected independent variables:

(1) Beginning (base) teacher salaries

(2) Maximum teacher salaries

(3) Percentage of students eligible for free and/or reduced lunch

(4) School district enrollment sizes, commonly referred to as average number belonging (ANB)

(5) Teacher-student ratio

This chapter includes a description of the population, the data collection process, the hypotheses and questions, and the statistical procedures applied in the analyses of the data.

Population of the Major and Secondary Problems

The population identified for both the major and secondary problems was made up of 219 public elementary school districts with student enrollment (ANB) of more than 50 students and which operated in Montana during the 1986-87, 1987-88, and 1988-89 academic years.

The following class categories, established by Montana law (20-6-201 MCA) were used:

Class 1 -- Community population of 6,500 or more

Class 2 -- Community population less than 6,500 but more than 1,000

Class 3 -- Community population less than 1,000

The researcher included all Class 1 and Class 2 districts and all Class 3 districts that had more than 50 students (ANB) during the 1987-88 school year. School districts with less than 50 students were not included in the study because of a limited number of student achievement test scores in those districts. In many of those districts, the mean scores were based on achievement test results of one or two students. To have included these districts in the study would have introduced data that would have produced large errors resulting in a broad scatter that would be too broad for conclusions. Table 1 shows the number of school districts included in each classification as established by this researcher and the number of districts listed in the *Directory of Montana Schools, 1987-1988.*

Table 1. Classification of elementary school districts.

Stratum	Number of Schools in Strata (1987)	Number of Schools Operating (1987)
Class 1	17	17
Class 2	100	100
Class 3	102**	261
Total	219	378*

*Five school districts held non-operating status during 1988-89, two school districts were new districts during 1987-88, and one school district held non-operating status during 1986-87 and changed to operating status in 1987-88.

**Only Class 3 school districts with more than 50 students were included in the study.

Data Collection

The data used in this study was obtained from various sources: elementary school districts, the Montana Office of Public Instruction, County Superintendents of Public Instruction, the Montana School Boards' Association, and the Montana Education Association.

The superintendent of each school district was initially informed of the study to be conducted by this researcher by letter and was requested to provide information needed for the study. They were advised that all test data used in the study would be confidential and would be used only by this researcher. Other data obtained from school districts were public in nature and were available on request. The mailing included an instrument (see Appendix C) wherein the following data from the 1986-87 academic year were requested:

(1) Name of norm referenced achievement test used by the district for third and sixth grades

(2) Normal curve equivalents of the mean score on third grade student reading achievement tests

(3) Normal curve equivalents of the mean score on third grade student mathematics achievement tests

(4) Normal curve equivalents of the mean score on sixth grade student reading achievement tests

(5) Normal curve equivalents of the mean score on sixth grade student mathematics achievement tests

(6) Percentage of students eligible for free and/or reduced lunch

(7) Identification of school district classification as stipulated in Section 20-6-201 of the *Montana Codes Annotated*

Each school district was asked to provide a copy of the 1986-87 teacher salary schedule showing beginning and maximum salaries. For those school districts that operated without a superintendent, the data were obtained from respective County Superintendents of Public Instruction and/or supervising teachers.

Normal curve equivalents (NCE) of mean scores of all third and sixth grade students in the districts were used rather than mean scores, as there was no uniform norm referenced test given by school districts in Montana for the measurement of student achievement (Olson, 1987). Normal curve equivalents were

used because percentile or standard scores have meaning in reference to one specific test and do not necessarily equate to percentiles or standard scores for another test (Glass & Stanley, 1970). Achievement tests were designed to determine the knowledge and skills acquired by students in specific content areas at a certain point in time. Norm referenced tests, based on a relative standard, showed student performance in relation to a norm group which had been predetermined with specified characteristics. These data were obtained from school districts and the Montana Office of Public Instruction.

Beginning (base) teacher salaries and maximum teacher salaries for each district were obtained from the salary schedules provided by school districts, the Montana School Boards' Association, the Montana Education Association, and County Superintendents.

All budget data needed for this study were public information and were obtained from records on file with the Montana Office of Public Instruction. Budget data were taken from the Application for Tax Levies and State Equalization and the Trustees' Financial Summary that were filed by each school district with the respective County Superintendent of Public Instruction and the Montana Office of Public Instruction. The "Application" was a 16-page document that reflected general fund budgets of school districts. Applications for 1986-87, 1987-88, and 1988-89 and the Trustees' Financial Summaries for 1986-87 were the sources for ANB, number of teachers, taxable valuation, and instruction-related costs.

Listed below are the codes used for the variables in the study of both the major and secondary problems:

(1) TVANB -- taxable valuation per student

(2) TEXANB -- total instruction-related expenditures per student

(3) TCHANB -- teacher-student ratio

(4) ANB -- district student enrollment (average number belonging)

(5) LUNCH -- percentage of students eligible for free and/or reduced lunch

(6) BSALARY -- minimum (base) salary paid to teachers

(7) MSALARY -- maximum salary paid to teachers

(8) 3RNCE -- normal curve equivalents of mean scores on third grade reading achievement tests

(9) 3MNCE -- normal curve equivalents of mean scores on third grade mathematics achievement tests

(10) 6RNCE -- normal curve equivalents of mean scores on sixth grade reading achievement tests

(11) 6MNCE -- normal curve equivalents of mean scores on sixth grade mathematics achievement tests

For study of the major problem, 100 percent of the data for the independent variables was obtained, as reported in Table 2. Table 3 reports the data obtained for the independent variables used in the secondary problem.

Table 2. Data collection of independent variables for the major problem by stratum.

Variable	Class 1	Class 2	Class 3	Total
TVANB				
Total Districts:	17	100	102	219
Districts with Data:	17	100	102	219
Percentage:	100%	100%	100%	100%
TEXANB				
Total Districts:	17	100	102	219
Districts with Data:	17	100	102	219
Percentage:	100%	100%	100%	100%

Table 3. Data collection of independent variables for the secondary problem by stratum.

Variable	Class 1	Class 2	Class 3	Total
TCHANB				
Total Districts:	17	100	102	219
Districts with Data:	17	100	102	219
Percentage:	100.0%	100.0%	100.0%	100.0%
ANB				
Total Districts:	17	100	102	219
Districts with Data:	17	100	102	219
Percentage:	100.0%	100.0%	100.0%	100.0%
LUNCH				
Total Districts:	17	79*	86*	182*
Districts with Data:	17	79	86	182
Percentage:	100.0%	100.0%	100.0%	100.0%
BSALARY				
Total Districts:	17	100	102	219
Districts with Data:	17	97	71	185
Percentage:	100.0%	97.0%	69.6%	83.1%
MSALARY				
Total Districts:	17	100	102	219
Districts with Data:	17	97	71	185
Percentage:	100.0%	97.0%	69.6%	84.5%

*Not all school districts provide a school lunch program for students.

Data obtained for the dependent variables used in both the major and secondary problems are reported in Table 4. Not all school districts tested students in each grade every year, and not all districts tested students for both reading and mathematics achievement every year.

Table 4. Data collection for dependent variables used for the major and secondary problems by stratum.

Variable	Class 1	Class 2	Class 3	Total
3RNCE				
Total Districts:	17	100	102	219
Districts with Data:	17	81	57	155
Percentage:	100.0%	81.0%	55.9%	70.8%
3MNCE				
Total Districts:	17	100	102	219
Districts with Data:	16	74	60	150
Percentage:	94.1%	74.0%	58.8%	68.5%
6RNCE				
Total Districts:	17	100	102	319
Districts with Data:	17	79	59	155
Percentage:	100.0%	79.0%	55.9%	70.8%
6MNCE				
Total Districts:	17	100	102	219
Districts with Data:	16	78	62	156
Percentage:	94.1%	78.0%	60.8%	71.2%

Hypotheses and Question

Four hypotheses were used to test the major problem, and four hypotheses were used to test the secondary problem. All hypotheses were expressed in alternate forms. Independent variables and dependent variables cited in the

following hypotheses for the major and secondary problems were referenced as follows:

Independent Variables

(1) x_1 -- taxable valuation per student

(2) x_2 -- total instruction-related expenditures per student

(3) x_3 -- beginning teacher salaries

(4) x_4 -- maximum teacher salaries

(5) x_5 -- percentage of students eligible for free and/or reduced lunch

(6) x_6 -- school district enrollment size

(7) x_7 -- teacher-student ratio

Dependent Variables

(1) y_1 -- NCEs of mean scores of third grade student reading achievement tests

(2) y_2 -- NCEs of mean scores of third grade student mathematics achievement tests

(3) y_3 -- NCEs of mean scores of sixth grade student reading achievement tests

(4) y_4 -- NCEs of mean scores of sixth grade student mathematics achievement tests

Hypotheses for Major Problem

(1) The independent variables of school district taxable valuation per student and school district instruction-related expenditures per student contribute

significantly to the amount of variability in the dependent variable of normal curve equivalents of mean scores on third grade student reading achievement tests.

- H_1: $R^2y_1, x_1, x_2 > 0$.

(2) The independent variables of school district taxable valuation per student and school district instruction-related expenditures per student contribute significantly to the amount of variability in the dependent variable of normal curve equivalents of mean scores on third grade student mathematics achievement tests.

- H_1: $R^2y_2, x_1, x_2 > 0$.

(3) The independent variables of school district taxable valuation per student and school district instruction-related expenditures per student contribute significantly to the amount of variability in the dependent variable of normal curve equivalents of mean scores on sixth grade student reading achievement tests.

- H_1: $R^2y_3, x_1, x_2 > 0$.

(4) The independent variables of school district taxable valuation per student and school district instruction-related expenditures per student contribute significantly to the amount of variability in the dependent variable of normal curve equivalents of mean scores on sixth grade student mathematics achievement tests.

- H_1: $R^2y_4, x_1, x_2 > 0$.

Hypotheses for Secondary Problem

(5) The independent variables of beginning teacher salaries, maximum teacher salaries, percentage of students eligible for free and/or reduced lunch, district ANB, and teacher-student ratio contribute significantly to the amount of variability in the dependent variable of normal curve equivalents of mean scores on third grade student reading achievement tests.

- H_1: $R^2y_1, x_3, x_4, x_5, x_6, x_7 > 0$.

(6) The independent variables of beginning teacher salaries, maximum teacher salaries, percentage of students eligible for free and/or reduced lunch, district ANB, and teacher-student ratio contribute significantly to the amount of variability in the dependent variable of normal curve equivalents of mean scores on third grade student mathematics achievement tests.

- H_1: $R^2y_2, x_3, x_4, x_5, x_6, x_7 > 0$.

(7) The independent variables of beginning teacher salaries, maximum teacher salaries, percentage of students eligible for free and/or reduced lunch, district ANB, and teacher-student ratio contribute significantly to the amount of variability in the dependent variable of normal curve equivalents of mean scores on sixth grade student reading achievement tests.

- H_1: $R^2y_3, x_3, x_4, x_5, x_6, x_7 > 0$.

(8) The independent variables of beginning teacher salaries, maximum teacher salaries, percentage of students eligible for free and/or reduced lunch, district ANB, and teacher-student ratio contribute significantly to the amount of

variability in the dependent variable of normal curve equivalents of mean scores on sixth grade student mathematics achievement tests.

- H_1: $R^2y_4, x_3, x_4, x_5, x_6, x_7 > 0$.

Question

(1) What is the ranked order of each independent variable in terms of its unique statistical contribution to the variability of the normal curve equivalents of the mean scores on third and sixth grade student reading and mathematics achievement tests after the other independent variables have been taken into account?

Statistical Procedures for Analyses of Data

For this study, all hypotheses were tested for statistical significance with an alpha (α) level of .05. The probability of committing a Type I error (rejection of a true null hypothesis) occurs in only five percent of actual cases. For most practical purposes, the probability of .05 can be determined to be significant (Ferguson, 1981). All statistical procedures applied in both the major and secondary studies utilized the SPSS^x statistical package.

One-way analysis of variance tests (ANOVA) were used to determine if Class 2 and Class 3 school districts with achievement test data were representative of all districts in their respective class stratum. One-way analysis of variance was the appropriate statistical procedure to determine if there was a significant variation between the means of two groups (Williams, 1979). In this case, those

two groups were school districts with achievement test data and school districts without achievement test data. For each group the means tested for any significant variation were those of the following known parameters:

(1) TVANB -- taxable valuation per student

(2) TEXANB -- total instruction-related expenditures per student

(3) TCHANB -- teacher-student ratio

(4) ANB -- district student enrollment

Test data categories were:

(1) 3RNCE -- normal curve equivalents of mean scores on third grade reading achievement tests

(2) 3MNCE -- normal curve equivalents of mean scores on third grade mathematics achievement tests

(3) 6RNCE -- normal curve equivalents of mean scores on sixth grade reading achievement tests

(4) 6MNCE -- normal curve equivalents of mean scores on sixth grade mathematics achievement tests

One-way analysis of variance tests were also used to determine if Class 2 and Class 3 school districts with salary data were representative of all districts in their respective class stratum. The means of the known parameters of taxable valuation per student, total instruction-related expenditures per student, teacher-student ratio, and district student enrollment were used in the analyses.

To test Hypotheses 1 through 8, multiple regression analysis was the statistical procedure used. Multiple regression is a method of analysis used to study the nature and magnitude of relations between variables in terms of the collective and separate contributions of two or more independent variables to the variability of a dependent variable (Kerlinger & Pedhazur, 1973). Multiple regression analysis determined the level of accuracy with which the dependent variables could be determined by the significant, unique contributions of the independent variables. R^2, as the multiple correlation coefficient of determination, was an estimate of the proportion of the variability of the dependent variables accounted for by the independent variables in concert. The value of R^2 varies from 0 to 1.00; there are no negative values.

To test the eight hypotheses for the major and secondary problems, the independent and dependent variables, identified earlier in this chapter, were used in the following multiple regression model:

$$Y' = b_1x_1 + b_2x_2 \ldots + b_kx_k + a$$

Kerlinger (1973) indicated that this model could be used to determine if there was a statistically significant amount of variability in the dependent variables contributed to by the independent variables.

Sixteen separate multiple regression analyses were conducted (four for all school districts in the study, four for Class 1 districts, four for Class 2 districts, and four for Class 3 districts) for each of the third grade and sixth grade dependent variables (reading achievement and mathematics achievement).

The F-test was applied to test the statistical significance of the multiple correlation coefficient (R^2) for each of the 16 multiple regression analyses discussed above. When there was a statistically significant F-value for any of the multiple correlation coefficients, forward stepwise regression analysis was conducted. This statistical procedure was used to determine the unique contribution of each independent variable to the variability of the third grade and sixth grade dependent variables. The inclusion of each independent variable in the forward stepwise regression analysis was used to determine its unique ability to contribute to the prediction of each of the dependent variables when other independent variables were held in account. The addition of each independent variable showed the amount of increase in R^2 to determine whether it was statistically significant and its unique contribution to the variability of the dependent variable. The purpose of using this procedure was to construct the most efficient model for each set of variables. Kerlinger (1973) indicated that there can be redundancy when additional independent variables contribute no additional regression in the dependent variable.

Question one was answered through forward stepwise regression analyses explained above.

CHAPTER 4

ANALYSIS OF DATA

This chapter contains the results of the data analyses used for the major and secondary problems of this study. The tests of the hypotheses for the major and secondary problems are presented.

Major Problem Data Analyses

The major problem of this study was to determine if there was a statistically significant amount of variability in student achievement attributed to school district wealth expressed in terms of taxable valuation and instruction-related expenditures. There were four hypotheses established and tested in the study of the major problem. Each hypothesis was tested for its application to all school districts included in the study and separately for its application to each school district class stratum, Class 1, Class 2, and Class 3. The results of those tests are presented and analyzed separately in this chapter.

One-way analysis of variance tests were used to determine that school districts with achievement test data were not significantly different ($P > .05$) than those school districts without achievement test data. These two groups of school districts, compared by each class stratum, were compared on the means of known

parameters of taxable valuation per student, total instruction-related expenditures per student, teacher-student ratio, and district student enrollment. One-way analysis of variance procedures were not used to test Class 1 school districts for differences in the known parameters because 100 percent of the data for third and sixth grade reading test scores was obtained, and 94 percent of the data for third and sixth grade mathematics test scores was obtained. Results of these analyses for Class 2 and Class 3 school districts, summarized in Table 5, showed that Class 2 and Class 3 school districts with achievement test data were representative of all school districts in those respective strata.

Table 5. Class 2 and Class 3 school district test data ANOVA summary table.

Test Data	Dependent Variable	F Probability Class 2 SD	F Probability Class 3 SD
3RNCE	TVANB	.7181	.8141
3RNCE	TEXANB	.7139	.8739
3RNCE	TCHANB	.4081	.8575
3RNCE	ANB	.8133	.3606
3MNCE	TVANB	.5408	.7485
3MNCE	TEXANB	.8124	.8039
3MNCE	TCHANB	.8442	.6523
3MNCE	ANB	.0951	.5416
6RNCE	TVANB	.5488	.5139
6RNCE	TEXANB	.2240	.6408
6RNCE	TCHANB	.8191	.8968
6RNCE	ANB	.2477	.7010
6MNCE	TVANB	.7401	.8900
6MNCE	TEXANB	.2739	.8879
6MNCE	TCHANB	.7219	.7153
6MNCE	ANB	.0652	.4525

Analyses of the dependent variables of third grade reading, third grade mathematics, sixth grade reading, and sixth grade mathematics (achievement test NCEs) were conducted to determine if there were significant differences between school district class strata. The breakdown analyses of the means of the dependent variables by school district class showed there were no significant differences ($P > .05$) between the school district strata. These data are summarized in Table 45, Appendix A.

Multiple regression procedures were used to test Hypotheses 1, 2, 3, and 4, and the F-test was applied to each of these hypotheses. The multiple regression analyses included the adjusted R^2 in order to provide a better fit for the most efficient multiple regression formula in its applications for prediction of an entire population. The mathematical calculations of the adjusted R^2 can produce a negative value. When this occurs, the negative R^2 value is interpreted as zero.

Application of multiple regression analyses of Class 1 school district data was conducted but is not detailed in this discussion because of the limited number of cases (17) in the Class 1 category. Limited number of cases in a study allows for limited interpretations. Kerlinger (1973, p. 127) stated, "The smaller the sample, the larger the error."

All Class 1 multiple regression procedure applications resulted in rejection of Hypotheses 1 through 4. The summary data for these tests are contained in Table 6.

Table 6. Summary table of multiple regression of Class 1 school districts for major problem (Hypotheses 1 through 4).

Indep. Var.	Mult. R	R^2	Adjusted R^2	Standard Error	F-Ratio	F-Prob.
3RNCE	.30917	.09559	-.03362	17.52133	.73982	.4950
3MNCE	.22989	.05285	-.08246	24.31054	.39059	.6838
6RNCE	.11725	.01375	-.12715	18.04825	.09757	.9076
6MNCE	.20969	.04397	-.09261	24.68419	.32194	.7300

Hypothesis 1

Hypothesis 1 stated that the independent variables of school district taxable valuation per student (TVANB) and school district instruction-related expenditures per student (TEXANB) contribute significantly to the amount of variability in the dependent variable of normal curve equivalents of mean scores on third grade student reading achievement tests (3RNCE). To test this hypothesis, multiple regression procedures were used. The data for this test are contained in Table 7.

Table 7. Multiple regression table of school district third grade reading achievement test NCEs by taxable valuation per student and total instruction-related expenditures per student.

Multiple R	R^2	Adjusted R^2	Standard Error	F-Ratio	F-Probability
.16255	.02642	.01732	26.95243	2.90386	.0570

The R^2 (.02642) between the dependent variable of third grade reading achievement test scores and the independent variables of taxable valuation and total instruction-related expenditures per student was not significant. Therefore, Hypothesis 1A was rejected.

Hypothesis 1 was also tested in its application to Class 2 and Class 3 school districts. The data for Class 2 are contained in Table 8.

Table 8. Multiple regression table of Class 2 school district third grade reading achievement test NCEs by taxable valuation per student and total instruction-related expenditures per student.

Multiple R	R^2	Adjusted R^2	Standard Error	F-Ratio	F-Probability
.18969	.03598	.01611	24.03524	1.81026	.1691

The R^2 (.035998) was not significant. Therefore, rejection of Hypothesis 1B was appropriate for Class 2 school districts.

The data for Class 3 school districts are contained in Table 9.

Table 9. Multiple regression table of Class 3 school district third grade reading achievement test NCEs by taxable valuation per student and total instruction-related expenditures per student.

Multiple R	R^2	Adjusted R^2	Standard Error	F-Ratio	F-Probability
.08739	.00764	-.01282	29.05730	.37329	.6895

The R^2 (.00764) was not significant. Rejection of Hypothesis 1C was appropriate for Class 3 school districts.

Hypothesis 2

Hypothesis 2 stated that the independent variables of school district taxable valuation per student (TVANB) and school district instruction-related expenditures per student (TEXANB) contribute significantly to the amount of variability in the dependent variable of normal curve equivalents of mean scores on third grade student mathematics achievement tests (3MNCE). Multiple regression procedures were used to test this hypothesis. The data for this test are contained in Table 10.

Table 10. Multiple regression table of school district third grade mathematics achievement test NCEs by taxable valuation per student and total instruction-related expenditures per student.

Multiple R	R^2	Adjusted R^2	Standard Error	F-Ratio	F-Probability
.08934	.00798	-.00129	27.94919	.86095	.4242

The R^2 (.00798) between the dependent variable of third grade mathematics achievement test scores and the independent variables of taxable valuation and total instruction-related expenditures was not significant. Therefore, Hypothesis 2A was rejected.

Hypothesis 2 was also tested in its application to Class 2 and Class 3 school districts. The data are contained in Tables 11 and 12, respectively.

Table 11. Multiple regression table of Class 2 school district third grade mathematics achievement test NCEs by taxable valuation per student and total instruction-related expenditures per student.

Multiple R	R^2	Adjusted R^2	Standard Error	F-Ratio	F-Probability
.13830	.01913	-.00110	26.45961	.94571	.3920

The R^2 (.01913) was not significant. Therefore, rejection of Hypothesis 2B was appropriate for Class 2 school districts.

Table 12. Multiple regression table of Class 3 school district third grade mathematics achievement test NCEs by taxable valuation per student and total instruction-related expenditures per student.

Multiple R	R^2	Adjusted R^2	Standard Error	F-Ratio	F-Probability
.04883	.00238	-.01818	29.04082	.11593	.8907

The R^2 (.00238) was not significant. Therefore, rejection of Hypothesis 2C was also appropriate for Class 3 school districts.

Hypothesis 3

Hypothesis 3 stated that the independent variables of school district taxable valuation per student (TVANB) and school district instruction-related expenditures per student (TEXANB) contribute significantly to the amount of variability in the dependent variable of normal curve equivalents of mean scores on sixth grade

student reading achievement tests (6RNCE). Multiple regression procedures were used to test this hypothesis. The data are contained in Table 13.

Table 13. Multiple regression table of school district sixth grade reading achievement test NCEs by taxable valuation per student and total instruction-related expenditures per student.

Multiple R	R^2	Adjusted R^2	Standard Error	F-Ratio	F-Probability
.16955	.02875	.01967	26.74753	3.16689	.0441

The R^2 (.02875) between the dependent variable of sixth grade reading achievement test scores and the independent variables of taxable valuation per student and total instruction-related expenditures per student was significant. Therefore, Hypothesis 3A was retained. Although the R^2 was significant, less than three percent of the variability in sixth grade reading can be attributed to the independent variables. When forward stepwise multiple regression procedures were applied to the same data, the independent variable of total instruction-related expenditures per student had an R^2 value of .02071 when taxable valuation was held constant. Once again, notation must be made that the magnitude of R^2 is limited, and only two percent of the variability in sixth grade reading achievement can be attributed to instruction-related expenditures. The data are presented in Table 14.

Table 14. Forward stepwise multiple regression table of school district sixth grade reading achievement test NCEs by total instruction-related expenditures per student when taxable valuation per student is held constant.

Multiple R	R^2	Adjusted R^2	Standard Error	F-Ratio	F-Probability
.14390	.02071	.01615	26.79548	4.54587	.0341

Hypothesis 3 was also tested for its application to Class 2 and Class 3 school districts. The data are contained in Tables 15 and 16, respectively.

Table 15. Multiple regression table of Class 2 school district sixth grade reading achievement test NCEs by taxable valuation per student and total instruction-related expenditures per student.

Multiple R	R^2	Adjusted R^2	Standard Error	F-Ratio	F-Probability
.14510	.02105	.00087	24.28318	1.04304	.3563

The R^2 (.02105) was not significant. Therefore, rejection of Hypothesis 3B was appropriate for Class 2 school districts.

Table 16. Multiple regression table of Class 3 school district sixth grade reading achievement test NCEs by taxable valuation per student and total instruction-related expenditures per student.

Multiple R	R^2	Adjusted R^2	Standard Error	F-Ratio	F-Probability
.16061	.02580	.00571	28.60969	1.28425	.2815

The R^2 (.02580) was not significant. Therefore, rejection of Hypothesis 3C was appropriate for Class 3 school districts.

Hypothesis 4

Hypothesis 4 stated that the independent variables of school district taxable valuation per student (TVANB) and school district instruction-related expenditures per student (TEXANB) contribute significantly to the amount of variability in the dependent variable of normal curve equivalents of mean scores on sixth grade student mathematics achievement tests (6MNCE). Multiple regression procedures were used to test the hypothesis. The data are contained in Table 17.

Table 17. Multiple regression table of school district sixth grade mathematics achievement test NCEs by taxable valuation per student and total instruction-related expenditures per student.

Multiple R	R^2	Adjusted R^2	Standard Error	F-Ratio	F-Probability
.15010	.02253	.01339	27.17694	2.46627	.0873

The R^2 (.02253) between the dependent variable of sixth grade mathematics achievement test scores and the independent variables of taxable valuation and total instruction-related expenditures per student was not significant. Therefore, Hypothesis 4A was rejected.

Hypothesis 4 was also tested for its application to Class 2 and Class 3 school districts. The data are contained in Tables 18 and 19, respectively.

Table 18. Multiple regression table of Class 2 school district sixth grade mathematics achievement test NCEs by taxable valuation per student and total instruction-related expenditures per student.

Multiple R	R^2	Adjusted R^2	Standard Error	F-Ratio	F-Probability
.15984	.02555	.00546	25.48948	1.27165	.2850

The R^2 (.02555) was not significant. Therefore, rejection of Hypothesis 4B was appropriate for Class 2 school districts.

Table 19. Multiple regression table of Class 3 school district sixth grade mathematics achievement test NCEs by taxable valuation per student and total instruction-related expenditures per student.

Multiple R	R^2	Adjusted R^2	Standard Error	F-Ratio	F-Probability
.14374	.02066	.00047	28.43106	1.02318	.3633

The R^2 (.02066) was not significant. Therefore, rejection of Hypothesis 4C was appropriate for Class 3 school districts.

Secondary Problem Data Analyses

A secondary problem of this study was to determine if there was a statistically significant amount of variability in the dependent variables of student reading and mathematics achievement attributed to each of the following selected independent variables:

(1) Beginning (base) teacher salaries

(2) Maximum teacher salaries

(3) Percentage of students eligible for free and/or reduced lunch

(4) School district enrollment, commonly referred to as average number belonging (ANB)

(5) Teacher-student ratio

There were four hypotheses established and tested for the study of this secondary problem. As with the study of the major problem, each hypothesis was tested for its application to all school districts in the study and separately for its application to Class 1, Class 2, and Class 3. The results of those tests are presented and analyzed separately in this chapter.

One-way analysis of variance tests were used to determine that school districts with salary data were not significantly different ($P > .05$) than those school districts without salary data. These two groups of school districts were compared on the means of the known parameters of taxable valuation per student, total instruction-related expenditures per student, teacher-student ratio, and district student enrollment. One-way analysis of variance procedures were not used to test Class 1 school district salary data because 100 percent of the data was obtained. The results of these analyses for Class 2 and Class 3 school districts showed that Class 2 and Class 3 school districts with salary data were representative of all school districts in those respective strata. These data are summarized in Table 20.

Table 20. Class 2 and Class 3 school district salary data ANOVA summary table.

Data Variable	Dependent Variable	F-Probability Class 2 SD	F-Probability Class 3 SD
SALARY	TVANB	.4992	.2175
SALARY	TEXANB	.8148	.0515
SALARY	TCHANB	.8769	.5650
SALARY	ANB	.2221	.1183

Application of multiple regression analyses of Class 1 school district data was conducted but is not detailed in this discussion because of the limited number of cases (17) in the Class 1 category. All Class 1 multiple regression procedure applications resulted in rejection of Hypotheses 5 through 8. The data for these tests are contained in Table 21.

Table 21. Summary table of multiple regression of Class 1 school districts for secondary problem (Hypotheses 5 through 8).

Indep. Var.	Mult. R	R^2	Adjusted R^2	Standard Error	F-Ratio	F-Prob.
3RNCE	.70040	.49056	.25899	14.83536	2.11845	.1391
3MNCE	.54428	.29624	-.02365	23.64093	.92607	.5000
6RNCE	.53199	.28301	-.04289	17.36061	.86839	.5321
6MNCE	.58171	.33839	.03765	23.16607	1.12521	.4022

Multiple regression tables for the secondary problem (Table 22 through Table 41) do not state each independent variable separately, but do reference them as a group ("Independent Variables"). Those independent variables, listed

in Hypotheses 5 through 8, were beginning teacher salaries, maximum teacher salaries, percentage of students eligible for free and/or reduced lunch, district student enrollment, and teacher-student ratio.

Hypothesis 5

Hypothesis 5 stated that the independent variables of beginning teacher salaries (BSALARY), maximum teacher salaries (MSALARY), percentage of students eligible for free and/or reduced lunch (LUNCH), district ANB (ANB), and teacher-student ratio (TCHANB) contribute significantly to the amount of variability in the dependent variable of normal curve equivalents of mean scores of third grade student reading achievement tests (3RNCE). Multiple regression procedures were used to test the hypothesis. The data are contained in Table 22.

Table 22. Multiple regression table for school district third grade reading achievement test NCEs by independent variables.

Multiple R	R^2	Adjusted R^2	Standard Error	F-Ratio	F-Probability
.38033	.14465	.12438	25.44196	7.13639	.0000

The R^2 (.14465) between the dependent variable of third grade reading achievement test scores and the independent variables of beginning and maximum teacher salaries, percentage of students eligible for free and/or reduced lunch, district student enrollment, and teacher-student ratio was significant. Over 14

percent of the variability in third grade reading achievement can be attributed to these independent variables when considered in concert. Hypothesis 5A was retained.

Application of forward stepwise multiple regression procedures revealed an R^2 value of .12181 for the percentage of students eligible for free and/or reduced lunch when all other independent variables were held constant. Twelve percent of the variability in third grade reading achievement can be attributed to the "lunch" variable when other independent variables are held constant. The R^2 was tested for significance with an F-statistic which produced an F-ratio of 15.97969 which was significant. The data are contained in Table 23.

Table 23. Forward stepwise multiple regression table of school district third grade reading achievement test NCEs by percentage of students eligible for free and/or reduced lunch when other independent variables are held constant.

Multiple R	R^2	Adjusted R^2	Standard Error	F-Ratio	F-Probability
.36047	.12994	.12181	25.47931	15.97969	.0000

The correlation between the "lunch" variable and third grade student reading achievement was .081. A much higher correlation of .559 existed between beginning teacher salaries and third grade student reading achievement.

In the application of forward stepwise multiple regression procedures, the independent variable of beginning teacher salaries had an R^2 value of .09321 when all other independent variables were held constant. Nine percent of the variability

in third grade reading achievement can be attributed to beginning teacher salaries when other independent variables are held constant. The R^2 was tested for significance using an F-statistic. This produced an F-ratio of 22.10065 which was significant. The data are contained in Table 24.

Table 24. Forward stepwise multiple regression table of school district third grade reading achievement test NCEs by beginning teacher salaries when other independent variables are held constant.

Multiple R	R^2	Adjusted R^2	Standard Error	F-Ratio	F-Probability
.30531	.09321	.08899	25.95093	22.10065	.0000

Notation should be made that the percentages of contribution of the variables considered in the forward stepwise procedure are not cumulative. The independent variables of maximum teacher salaries, student enrollment, and teacher-student ratio did not provide any unique statistical contribution to the variability of third grade reading achievement.

Hypothesis 5 was also tested for its application to Class 2 and Class 3 districts. The data for Class 2 are contained in Table 25.

Table 25. Multiple regression table of Class 2 school district third grade reading achievement test NCEs by independent variables.

Multiple R	R^2	Adjusted R^2	Standard Error	F-Ratio	F-Probability
.20724	.04295	-.00796	24.32738	.84368	.5222

The R^2 (.04295) between the dependent variable of third grade reading achievement test scores and the independent variables of beginning and maximum teacher salaries, percentage of students eligible for free and/or reduced lunch, student enrollment, and teacher-student ratio was not significant. Hypothesis 5B was rejected in its application to Class 2 school districts.

The data for Class 3 are contained in Table 26.

Table 26. Multiple regression table of Class 3 school district third grade reading achievement test NCEs by independent variables.

Multiple R	R^2	Adjusted R^2	Standard Error	F-Ratio	F-Probability
.388820	.15070	.10552	27.30695	3.33583	.0081

The R^2 (.15070) between the dependent variable of third grade reading achievement test scores and the independent variables of beginning and maximum teacher salaries, percentage of students eligible for free and/or reduced lunch, district student enrollment, and teacher-student ratio was significant. Fifteen percent of the variability in third grade reading achievement in Class 3 school districts can be attributed to these independent variables when considered in concert. Hypothesis 5C was retained in its application to Class 3 school districts.

Application of forward stepwise multiple regression procedures revealed an R^2 value of .13375 for the percentage of students eligible for free and/or reduced lunch when all other independent variables were held constant. Thirteen percent of the variability in third grade reading achievement can be attributed to the "lunch" variable when other independent variables are held constant. The R^2 was

tested for significance with an F-statistic which produced an F-ratio of 7.48815 which was significant. The data are contained in Table 27.

Table 27. Forward stepwise multiple regression table of Class 3 school district third grade reading achievement test NCEs by percentage of students eligible for free and/or reduced lunch when other independent variables are held constant.

Multiple R	R^2	Adjusted R^2	Standard Error	F-Ratio	F-Probability
.36571	.13375	.11588	27.14832	7.48815	.0009

In the application of forward stepwise multiple regression procedures, the independent variable of beginning teacher salaries had an R^2 value of .09676 when all other independent variables were held constant. Nine percent of the variability in third grade reading achievement in Class 3 school districts can be attributed to beginning teacher salaries when other independent variables are held constant. The R^2 was tested for significance using an F-statistic. This produced an F-ratio of 10.49824 which was significant. The data are contained in Table 28.

Table 28. Forward stepwise multiple regression table of Class 3 school district third grade reading achievement test NCEs by beginning teacher salaries when other independent variables are held constant.

Multiple R	R^2	Adjusted R^2	Standard Error	F-Ratio	F-Probability
.31106	.09676	.08754	27.58003	10.49824	.0016

The correlation between the "lunch" variable and third grade student reading achievement was -.151. The correlation between beginning teacher salaries and third grade student reading achievement was .323.

Notation should be made that the percentages of contribution of the variables considered in the forward stepwise procedure are not cumulative. The independent variables of maximum teacher salaries, student enrollment, and teacher-student ratio did not provide any unique statistical contribution to the variability of third grade reading achievement.

Hypothesis 6

Hypothesis 6 stated that the independent variables of beginning teacher salaries (BSALARY), maximum teacher salaries (MSALARY), percentage of students eligible for free and/or reduced lunch (LUNCH), district ANB (ANB), and teacher-student ratio (TCHANB) contribute significantly to the amount of variability in the dependent variable of normal curve equivalents of mean scores of third grade student mathematics achievement tests (3MNCE). Multiple regression procedures were used to test the hypothesis. The data are contained in Table 29.

Table 29. Multiple regression table for school district third grade mathematics achievement test NCEs by independent variables.

Multiple R	R^2	Adjusted R^2	Standard Error	F-Ratio	F-Probability
.27028	.07305	.05109	27.20840	3.32572	.0065

The R^2 (.07305) between the dependent variable of third grade mathematics achievement test scores and the independent variables of beginning and maximum teacher salaries, percentage of students eligible for free and/or reduced lunch, district student enrollment, and teacher-student ratio was significant. Seven percent of the variability in third grade mathematics achievement can be attributed to these independent variables when considered in concert. Hypothesis 6A was retained.

Application of forward stepwise multiple regression procedures revealed an R^2 value of .03756 for maximum teacher salaries when all other independent variables were held constant. The R^2 was tested for significance with an F-statistic which produced a significant F-ratio of 8.39028. Less than four percent of the variability in third grade mathematics achievement can be attributed to maximum teacher salaries. Although this finding was statistically significant, the practical limitation of the magnitude of 3.76 percent must be noted. The data are contained in Table 30.

Table 30. Forward stepwise multiple regression table of school district third grade mathematics achievement test NCEs by maximum teacher salaries when other independent variables are held constant.

Multiple R	R^2	Adjusted R^2	Standard Error	F-Ratio	F-Probability
.19380	.03756	.03308	27.46529	8.39028	.0042

The correlation between maximum teacher salaries and third grade student mathematics achievement was .478. The independent variables of beginning teacher salaries, percentage of students eligible for free and/or reduced lunch, district student enrollment, and teacher-student ratio did not provide any unique statistical contribution to the variability of third grade mathematics achievement.

Hypothesis 6 was also tested for its application to Class 2 and Class 3 school districts. Data for Class 2 are contained in Table 31.

Table 31. Multiple regression table for Class 2 school district third grade mathematics achievement test NCEs by independent variables.

Multiple R	R^2	Adjusted R^2	Standard Error	F-Ratio	F-Probability
.16933	.02867	-.02299	26.74741	.55495	.7342

The R^2 (.02867) between the dependent variable of third grade mathematics achievement test scores and the independent variables of beginning and maximum teacher salaries, percentage of students eligible for free and/or reduced lunch, district student enrollment, and teacher-student ratio was not significant. Hypothesis 6B was rejected in its application to Class 2 school districts.

Table 32 contains the data for Class 3 school districts.

Table 32. Multiple regression table for Class 3 school district third grade mathematics achievement test NCEs by independent variables.

Multiple R	R^2	Adjusted R^2	Standard Error	F-Ratio	F-Probability
.23530	.05536	.00512	28.70657	1.10186	.3647

The R^2 (.05536) between the dependent variable of third grade mathematics achievement test scores and the independent variables of beginning and maximum teacher salaries, percentage of students eligible for free and/or reduced lunch, district student enrollment, and teacher-student ratio was not significant. Hypothesis 6C was rejected in its application to Class 3 school districts.

Hypothesis 7

Hypothesis 7 stated that the independent variables of beginning teacher salaries (BSALARY), maximum teacher salaries (MSALARY), percentage of students eligible for free and/or reduced lunch (LUNCH), district ANB (ANB), and teacher-student ratio (TCHANB) contribute significantly to the amount of variability in the dependent variable of normal curve equivalents of mean scores of sixth grade student reading achievement tests (6RNCE). Multiple regression procedures were used to test the hypothesis. The data are contained in Table 33.

Table 33. Multiple regression table of school district sixth grade reading achievement test NCEs by independent variables.

Multiple R	R^2	Adjusted R^2	Standard Error	F-Ratio	F-Probability
.35271	.12440	.10366	25.57612	5.99579	.0000

The R^2 (.12440) between the dependent variable of sixth grade reading achievement test scores and the independent variables of beginning and maximum teacher salaries, percentage of students eligible for free and/or reduced lunch,

district student enrollment, and teacher-student ratio was significant. Twelve percent of the variability in sixth grade mathematics achievement can be attributed to these independent variables when considered in concert. Hypothesis 7A was retained.

Application of forward stepwise multiple regression procedures revealed an R^2 value of .09893 for maximum teacher salaries when all other independent variables were held constant. More than nine percent of the variability in sixth grade reading achievement can be attributed to maximum teacher salaries when other independent variables are held constant. The R^2 was tested for significance with an F-statistic that produced an F-ratio of 23.60638 which was significant. The data are contained in Table 34.

Table 34. Forward stepwise multiple regression table of school district sixth grade reading achievement test NCEs by maximum teacher salaries when other independent variables are held constant.

Multiple R	R^2	Adjusted R^2	Standard Error	F-Ratio	F-Probability
.31454	.09893	.09474	25.70296	23.60638	.0000

The correlation between maximum teacher salaries and sixth grade reading achievement was .541. The independent variables of beginning teacher salaries, percentage of students eligible for free and/or reduced lunch, district student enrollment, and teacher-student ratio did not provide any unique statistical contribution to the variability of sixth grade mathematics achievement.

Hypothesis 7 was also tested for its application to Class 2 and Class 3 school districts. Data for Class 2 districts are contained in Table 35.

Table 35. Multiple regression table of Class 2 school district sixth grade reading achievement test NCEs by independent variables.

Multiple R	R^2	Adjusted R^2	Standard Error	F-Ratio	F-Probability
.12300	.01513	-.03726	24.74214	.28882	.9181

The R^2 (.01513) between the dependent variable of sixth grade reading achievement test scores and the independent variables of beginning and maximum teacher salaries, percentage of students eligible for free and/or reduced lunch, district student enrollment, and teacher-student ratio was not significant. Hypothesis 7B was rejected in its application to Class 2 school districts.

Data for Class 3 school districts are contained in Table 36.

Table 36. Multiple regression table of Class 3 school district sixth grade reading achievement test NCEs by independent variables.

Multiple R	R^2	Adjusted R^2	Standard Error	F-Ratio	F-Probability
.36957	.13658	.09066	27.36026	2.97399	.0155

The R^2 (.13658) between the dependent variable of sixth grade reading achievement test scores and the independent variables of beginning and maximum teacher salaries, percentage of students eligible for free and/or reduced lunch,

district student enrollment, and teacher-student ratio was significant. More than 13 percent of the variability in Class 3 sixth grade mathematics achievement can be attributed to these independent variables when considered in concert. Hypothesis 7C was retained in its application to Class 3 school districts.

Application of forward stepwise multiple regression procedures revealed an R^2 value of .09085 for beginning teacher salaries when all other independent variables were held constant. Nine percent of the variability in sixth grade reading achievement in Class 3 school districts can be attributed to beginning teacher salaries when other variables are held constant. The R^2 was tested for significance with an F-statistic that produced an F-ratio of 9.79302 which was significant. The data are contained in Table 37.

Table 37. Forward stepwise multiple regression table of Class 3 school district sixth grade reading achievement test NCEs by beginning teacher salaries when other independent variables are held constant.

Multiple R	R^2	Adjusted R^2	Standard Error	F-Ratio	F-Probability
.30141	.09085	.08157	27.49659	9.79302	.0023

The correlation between beginning teacher salaries and sixth grade student reading achievement was .313. The independent variables of maximum teacher salaries, percentage of students eligible for free and/or reduced lunch, district student enrollment, and teacher-student ratio did not provide any unique statistical contribution to the variability of third grade reading achievement.

Hypothesis 8

Hypothesis 8 stated that the independent variables of beginning teacher salaries (BSALARY), maximum teacher salaries (MSALARY), percentage of students eligible for free and/or reduced lunch (LUNCH), district ANB (ANB), and teacher-student ratio (TCHANB) contribute significantly to the amount of variability in the dependent variable of normal curve equivalents of mean scores of sixth grade student mathematics achievement tests (6MNCE). Multiple regression procedures were used to test the hypothesis. The data are contained in Table 38.

Table 38. Multiple regression table of school district sixth grade mathematics achievement test NCEs by independent variables.

Multiple R	R^2	Adjusted R^2	Standard Error	F-Ratio	F-Probability
.29163	.08505	.06336	26.47977	3.92254	.0020

The R^2 (.08505) between the dependent variable of sixth grade mathematics achievement test scores and the independent variables of beginning and maximum teacher salaries, percentage of students eligible for free and/or reduced lunch, district student enrollment, and teacher-student ratio was significant. Eight and one-half percent of the variability in sixth grade mathematics achievement can be attributed to these independent variables when considered in concert. Hypothesis 8A was retained.

Application of forward stepwise multiple regression procedures revealed an R^2 value of .05856 for maximum teacher salaries when all other independent variables were held constant. Nearly six percent of the variability in sixth grade mathematics achievement can be attributed to maximum teacher salaries when other independent variables are held constant. The R^2 was tested for significance with an F-statistic that produced an F-ratio of 13.37258 which was significant. The data are contained in Table 39.

Table 39. Forward stepwise multiple regression table of school district sixth grade mathematics achievement test NCEs by maximum teacher salaries when other independent variables are held constant.

Multiple R	R^2	Adjusted R^2	Standard Error	F-Ratio	F-Probability
.24198	.05856	.05418	26.60932	13.37258	.0003

The correlation between maximum teacher salaries and sixth grade student mathematics achievement was .515. The independent variables of beginning teacher salaries, percentage of students eligible for free and/or reduced lunch, district student enrollment, and teacher-student ratio did not provide any unique statistical contribution to the variability of sixth grade mathematics achievement.

Hypothesis 8 was also tested for its application to Class 2 and Class 3 school districts. Data for Class 2 school districts are contained in Table 40.

Table 40. Multiple regression table of Class 2 school district sixth grade mathematics achievement test NCEs by independent variables.

Multiple R	R^2	Adjusted R^2	Standard Error	F-Ratio	F-Probability
.15294	.02339	-.02856	25.92172	.45025	.8121

The R^2 (.02339) between the dependent variable of sixth grade mathematics achievement test scores and the independent variables of beginning and maximum teacher salaries, percentage of students eligible for free and/or reduced lunch, district student enrollment, and teacher-student ratio was not significant. Hypothesis 8B was rejected in its application to Class 2 school districts.

Data for Class 3 school districts are contained in Table 41.

Table 41. Multiple regression table of Class 3 school district sixth grade mathematics achievement NCEs by independent variables.

Multiple R	R^2	Adjusted R^2	Standard Error	F-Ratio	F-Probability
.30262	.09158	.04326	27.81579	1.89530	.1024

The R^2 (.09158) between the dependent variable of sixth grade mathematics achievement test scores and the independent variables of beginning and maximum teacher salaries, percentage of students eligible for free and/or reduced lunch, district student enrollment, and teacher-student ratio was not significant. Hypothesis 8C was rejected in its application to Class 3 school districts.

Summary

There were four hypotheses designed for the study of the major problem. Portions of all hypotheses were rejected, and a portion of one was retained.

There were four hypotheses designed for the study of the secondary problem. Portions of all hypotheses were retained, and portions of all hypotheses were rejected. Tables 42 and 43 summarize the results of the statistical tests for each hypothesis for the major and secondary study areas.

Question 1 was answered through forward stepwise multiple regression procedures to test Hypotheses 3, 5, 6, 7, and 8.

Table 42. Table of hypotheses for major problem.

Hypothesis	Statement	Retained	Rejected
1A	The independent variables of school district taxable valuation per student and school district instruction-related expenditures per student contribute significantly to the variability in the dependent variable of normal curve equivalents of mean scores on third grade student reading achievement tests in all school districts in the study (Class 1, Class 2, and Class 3).		X
1B	The independent variables of school district taxable valuation per student and school district instruction-related expenditures per student contribute significantly to the variability in the dependent variable of normal curve equivalents of mean scores on third grade student reading achievement tests in Class 2 school districts.		X

Table 42--continued.

Hypothesis	Statement	Retained	Rejected
1C	The independent variables of school district taxable valuation per student and school district instruction-related expenditures per student contribute significantly to the variability in the dependent variable of normal curve equivalents of mean scores on third grade student reading achievement tests in Class 3 school districts.		X
2A	The independent variables of school district taxable valuation per student and school district instruction-related expenditures per student contribute significantly to the variability in the dependent variable of normal curve equivalents of mean scores on third grade student mathematics achievement tests in all school districts in the study (Class 1, Class 2, and Class 3).		X
2B	The independent variables of school district taxable valuation per student and school district instruction-related expenditures per student contribute significantly to the variability in the dependent variable of normal curve equivalents of mean scores on third grade student mathematics achievement tests in Class 2 school districts.		X
2C	The independent variables of school district taxable valuation per student and school district instruction-related expenditures per student contribute significantly to the variability in the dependent variable of normal curve equivalents of mean scores on third grade student mathematics achievement tests in Class 3 school districts.		X

Table 42--continued.

Hypothesis	Statement	Retained	Rejected
3A	The independent variables of school district taxable valuation per student and school district instruction-related expenditures per student contribute significantly to the variability in the dependent variable of normal curve equivalents of mean scores on sixth grade student reading achievement tests in all school districts in the study (Class 1, Class 2, and Class 3).	X	
3B	The independent variables of school district taxable valuation per student and school district instruction-related expenditures per student contribute significantly to the variability in the dependent variable of normal curve equivalents of mean scores on sixth grade student reading achievement tests in Class 2 school districts.		X
3C	The independent variables of school district taxable valuation per student and school district instruction-related expenditures per student contribute significantly to the variability in the dependent variable of normal curve equivalents of mean scores on sixth grade student reading achievement tests in Class 3 school districts.		X
4A	The independent variables of school district taxable valuation per student and school district instruction-related expenditures per student contribute significantly to the variability in the dependent variable of normal curve equivalents of mean scores on sixth grade student mathematics achievement tests in all school districts in the study (Class 1, Class 2, and Class 3).		X

Table 42--continued.

Hypothesis	Statement	Retained	Rejected
4B	The independent variables of school district taxable valuation per student and school district instruction-related expenditures per student contribute significantly to the variability in the dependent variable of normal curve equivalents of mean scores on sixth grade student mathematics achievement tests in Class 2 school districts.		X
4C	The independent variables of school district taxable valuation per student and school district instruction-related expenditures per student contribute significantly to the variability in the dependent variable of normal curve equivalents of mean scores on sixth grade student mathematics achievement tests in Class 3 school districts.		X

Table 43. Table of hypotheses for secondary problem.

Hypothesis	Statement	Retained	Rejected
5A	The independent variables of beginning teacher salaries, maximum teacher salaries, percentage of students eligible for free and/ or reduced lunch, district student enrollment, and teacher-student ratio contribute significantly to the variability in the dependent variable of normal curve equivalents of mean scores on third grade reading achievement tests in all school districts in the study (Class 1, Class 2, and Class 3).	X	

Table 43--continued.

Hypothesis	Statement	Retained	Rejected
5B	The independent variables of beginning teacher salaries, maximum teacher salaries, percentage of students eligible for free and/ or reduced lunch, district student enrollment, and teacher-student ratio contribute significantly to the variability in the dependent variable of normal curve equivalents of mean scores on third grade reading achievement tests in Class 2 school districts.		X
5C	The independent variables of beginning teacher salaries, maximum teacher salaries, percentage of students eligible for free and/ or reduced lunch, district student enrollment, and teacher-student ratio contribute significantly to the variability in the dependent variable of normal curve equivalents of mean scores on third grade reading achievement tests in Class 3 school districts.	X	
6A	The independent variables of beginning teacher salaries, maximum teacher salaries, percentage of students eligible for free and/ or reduced lunch, district student enrollment, and teacher-student ratio contribute significantly to the variability in the dependent variable of normal curve equivalents of mean scores on third grade mathematics achievement tests in all school districts in the study (Class 1, Class 2, and Class 3).	X	
6B	The independent variables of beginning teacher salaries, maximum teacher salaries, percentage of students eligible for free and/ or reduced lunch, district student enrollment, and teacher-student ratio contribute significantly to the variability in the dependent variable of normal curve equivalents of mean scores on third grade mathematics achievement tests in Class 2 school districts.		X

Table 43--continued.

Hypothesis	Statement	Retained	Rejected
6C	The independent variables of beginning teacher salaries, maximum teacher salaries, percentage of students eligible for free and/ or reduced lunch, district student enrollment, and teacher-student ratio contribute significantly to the variability in the dependent variable of normal curve equivalents of mean scores on third grade mathematics achievement tests in Class 3 school districts.		X
7A	The independent variables of beginning teacher salaries, maximum teacher salaries, percentage of students eligible for free and/ or reduced lunch, district student enrollment, and teacher-student ratio contribute significantly to the variability in the dependent variable of normal curve equivalents of mean scores on sixth grade reading achievement tests in all school districts in the study (Class 1, Class 2, and Class 3).	X	
7B	The independent variables of beginning teacher salaries, maximum teacher salaries, percentage of students eligible for free and/ or reduced lunch, district student enrollment, and teacher-student ratio contribute significantly to the variability in the dependent variable of normal curve equivalents of mean scores on sixth grade reading achievement tests in Class 2 school districts.		X
7C	The independent variables of beginning teacher salaries, maximum teacher salaries, percentage of students eligible for free and/ or reduced lunch, district student enrollment, and teacher-student ratio contribute significantly to the variability in the dependent variable of normal curve equivalents of mean scores on sixth grade reading achievement tests in Class 3 school districts.	X	

Table 43--continued.

Hypothesis	Statement	Retained	Rejected
8A	The independent variables of beginning teacher salaries, maximum teacher salaries, percentage of students eligible for free and/ or reduced lunch, district student enrollment, and teacher-student ratio contribute significantly to the variability in the dependent variable of normal curve equivalents of mean scores on sixth grade mathematics achievement tests in all school districts in the study (Class 1, Class 2, and Class 3).	X	
8B	The independent variables of beginning teacher salaries, maximum teacher salaries, percentage of students eligible for free and/ or reduced lunch, district student enrollment, and teacher-student ratio contribute significantly to the variability in the dependent variable of normal curve equivalents of mean scores on sixth grade mathematics achievement tests in Class 2 school districts.		X
8C	The independent variables of beginning teacher salaries, maximum teacher salaries, percentage of students eligible for free and/ or reduced lunch, district student enrollment, and teacher-student ratio contribute significantly to the variability in the dependent variable of normal curve equivalents of mean scores on sixth grade mathematics achievement tests in Class 3 school districts.		X

CHAPTER 5

SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

This study has examined the relationship between school district wealth and student achievement. Based on the examination of taxable valuation and instruction-related expenditures, the researcher has made a determination of what kind of relationship exists between school district wealth and student achievement in terms of third and sixth grade achievement in reading and mathematics. This chapter will summarize the findings of the study, present the researcher's conclusions that were drawn, and offer recommendations.

Summary of the Study

The relationship between wealth of school districts and student achievement has been a focus for researchers throughout this century (Mort et al., 1960). Germane literature was reviewed in Chapter 2 of this study under two sections: (1) historical and legal issues related to the problem, and (2) research which discussed a relationship between achievement and expenditure level per student.

The historical aspects of this relationship have been infused with legal controversy. Following the U.S. Supreme Court ruling that educational issues were a matter of states' rights under the 10th Amendment to the U.S. Constitution (*Rodriquez v. San Antonio Independent School District,* 1973), over half of the states have experienced lawsuits on funding issue inequities (Alexander et al., 1982). The same legal contest occurred in Montana through a suit brought against the State by sixty-five school districts (*Helena Elementary School District #1 et al. v. State of Montana,* 1988). The district court decision in favor of the school districts held that funding inequities contributed to denial of equal opportunity for student achievement. This decision was upheld on appeal to the Montana Supreme Court (*Montana Supreme Court, #88-381).* This Montana case was the impetus that prompted the researcher to conduct this study.

Research on school district wealth and its impact on student achievement has produced conflicting reports (Guthrie et al., 1971). The study by Mort et al. (1960) cited that a cost-quality relationship was a general assumption; student achievement was greater when higher expenditure levels per student existed. The Coleman Report (Coleman et al., 1966) concluded that socioeconomic factors and family background contributed more to student achievement than did factors of school characteristics. Rossmiller (1986b) found that there was no proof that increased spending would produce more effective schools. He concluded that processes, the way resources are used, were more important to student achievement than was the amount of resources available. Frohreich's (1986) longitudinal

study of four public elementary school districts in Wisconsin found that when all students were grouped together, student achievement decreased with increased expenditures. However, when students with special needs were considered separately, increased expenditures produced increases in student achievement. Frohreich did not make generalizations from this study, but indicated that most micro-studies did not find significant relationships between expenditure levels and student achievement.

The results of this study are discussed in Chapter 4. In summary, 219 public elementary school districts with enrollments of more than 50 students were studied to reach conclusions for both the major and secondary problems. The major and secondary studies examined data for all school districts in the study. Both studies examined all school districts together as one group and separately according to their classifications by size: Class 1, Class 2, and Class 3. The independent variables in the major study were taxable valuation per student and total instruction-related expenditures per student. The dependent variables were reading and mathematics achievement test scores of third and sixth grade students.

The major study found that school district wealth did not impact the variability in third or sixth grade student mathematics achievement when all school districts were grouped together. The same findings existed for third grade reading achievement.

School district wealth and instruction-related expenditures did contribute to statistically significant variability in sixth grade reading achievement. The results

of forward stepwise multiple regression procedures revealed that two percent of the variability in sixth grade student reading achievement was attributed to total instruction-related expenditures per student. Although the variability of sixth grade reading achievement test scores was influenced by taxable valuation and instruction-related expenditures, the magnitude of that variability (less than three percent) was considered to be negligible by the researcher. Practical significance outweighed statistical significance because of the minimal magnitude of these findings.

When the data for the major study were examined with school districts grouped according to size classification, there were no significant contributions to the variability of student reading and mathematics achievement at the third or sixth grade levels in Class 1, Class 2, or Class 3 school districts.

Independent variables in the secondary study were beginning and maximum teacher salaries, percentage of students eligible for free and/or reduced lunch, school district student enrollment, and teacher-student ratio. The dependent variables were reading and mathematics achievement test scores of third and sixth grade students. The secondary study found that when all elementary school districts in the study were grouped together, there was statistically significant variability in reading and mathematics achievement of students at the third and sixth grade levels attributed to the independent variables. Results of forward stepwise multiple regression procedures revealed the following:

(1a) The percentage of students eligible for free and/or reduced lunch had the largest unique contribution (12 percent) to the variability of third grade student reading achievement when other independent variables were held constant.

(1b) Beginning teacher salaries had a unique contribution (eight percent) to the variability of third grade student reading achievement when other independent variables were held constant.

(2) Maximum teacher salaries had a unique contribution (three percent) to the variability in third grade student mathematics achievement when other independent variables were held constant.

(3) Maximum teacher salaries had a unique contribution (nine percent) to the variability in sixth grade student reading achievement when other independent variables were held constant.

(4) Maximum teacher salaries had a unique contribution (five percent) to the variability in sixth grade student mathematics achievement when other independent variables were held constant.

When school districts were grouped according to size classification, there was no significant variability in third and sixth grade reading and mathematics achievement of students in Class 1 or Class 2 school districts and third and sixth grade mathematics achievement of students in Class 3 districts. However, significant variability in reading achievement of third and sixth grade students in Class

3 school districts was revealed. Application of forward stepwise multiple regression procedures showed the following:

(1a) The percentage of students eligible for free and/or reduced lunch had the largest unique contribution (13 percent) to the variability in third grade student reading achievement in Class 3 school districts when other independent variables were held constant.

(1b) Beginning teacher salaries had a unique contribution (nine percent) to the variability of third grade student reading achievement in Class 3 school districts when other independent variables were held constant.

(2) Beginning teacher salaries had a unique contribution (nine percent) to the variability of sixth grade student reading achievement in Class 3 school districts when other independent variables were held constant.

These study results are summarized in Table 46, Appendix B.

Thomas (1962) found a statistically significant relationship between student achievement and beginning teacher salaries. Cohn (1968) concluded in his study of the relationship between teacher salaries and high school student achievement that higher salaries were related to higher gains in student achievement. This study shows a similar relationship for elementary school student achievement. Table 44 shows the correlation between beginning and maximum teacher salaries and third and sixth grade reading and mathematics achievement for all school districts in the study.

Table 44. Correlation between teacher salaries and third and sixth grade reading and mathematics achievement for all school districts in the study.

Salary Variable	Grade 3 Reading	Grade 3 Mathematics	Grade 6 Reading	Grade 6 Mathematics
BSALARY	.559	.499	.547	.522
MSALARY	.537	.478	.541	.515

The results of the study of the secondary problem of this research tended to support the findings of Rossmiller's (1986b) study which concluded that the way resources were used was more important than the amount of resources available. Money was essential to purchase necessary services for education, but abundance of resources did not imply increased student achievement would result.

Researcher's Conclusions

The researcher drew the following conclusions from the results of this study:

(1) Third grade children whose reading achievement is most impacted are those children from homes near or below the poverty level in Class 3 school districts.

(2) Total instruction-related expenditures per student do not make a significant contribution to reading achievement, but beginning teacher salary does influence third and sixth grade reading achievement of children in Class 3 school districts.

(3) Reading achievement of sixth grade students and math achievement of both third and sixth grade students in all school districts are influenced by maximum teacher salaries. Results of the study show a direct correlation between maximum teacher salaries and student achievement; lower maximum teacher salaries result in lower student achievement.

Researcher's Concluding Remarks

The results of the findings of the major and secondary studies are interpreted specifically to the relationship between student achievement in third and sixth grade reading and mathematics and the selected independent variables identified.

The results of the study of the major problem of this study supported the findings of Rossmiller (1986b) and Coleman (1966), concluding that variability in student achievement was more influenced by variations in socioeconomic status and family backgrounds of students than by variations in school characteristics. With respect to the relationship between school district wealth and student reading and mathematics achievement in the state of Montana, it would appear that regardless of the wealth of a school district or the funds expended for instruction-related costs, it does not make any significant contribution to student achievement in third and sixth grade reading and mathematics. Students from poorer districts scored just as well on achievement tests as did students from wealthier districts. Apparently, variability in student achievement was influenced more by factors

other than school district wealth and instruction-related expenditures. Specific implications and researcher interpretations of the findings of the major and secondary studies follow:

(1) The unique contribution of instruction-related expenditures to sixth grade reading achievement was interpreted to be an indication of the impact of the cumulative result of spending less for instruction-related costs over the years that a student is in school. The researcher based this interpretation on the fact that the statistical analyses of the data did not show a statistically significant relationship between third grade reading achievement and instruction-related expenditures.

(2) An explanation of why reading skills of third grade children from homes near or below the poverty level in Class 3 school districts are negatively impacted may be due to factors such as the following. Class 3 school districts are located in small and often isolated communities that may not have public libraries. Preschool educational opportunities for poverty-level students may be limited in Class 3 school districts because the number of economically disadvantaged preschool aged children may not be large enough to quality for a Head Start program in the community, and participation in other preschool programs may be nonexistent. Research has shown that disadvantaged children who participate in preschool programs experience increases in language achievement and increases in IQ test scores immediately after their preschool experiences. These effects decrease and become

undetectable in later grades (Slavins & Madden, 1989). Children from low-income families may not have access to books, periodical publications, or other enrichment media in their homes. The existence, or combination, of any of these factors could explain why reading skills of third grade children from low-income homes are negatively impacted. Reading achievement of sixth grade students in Class 3 school districts does not appear to be influenced by limitations on family income. This may be due to internal and/or external sources. It may be that the child's own motivation compensates to overcome the economic disadvantages, or it may be due to effective instructional strategies of the classroom teacher and/or parental encouragement and support.

(3) Third and sixth grade reading achievement of children in Class 3 school districts is influenced by beginning teacher salaries. It may be that Class 3 school districts do not attract the same quality of teacher candidates as do Class 1 or Class 2 districts because of low beginning salaries. However, salary may not be the sole indicator of the quality of teacher applicants. Other factors that may limit the quality of applicants may be related to the isolation of the community. Isolated communities often lack employment opportunities for spouses; there are limited opportunities for continued professional development, and the availability of cultural activities is limited.

(4) Maximum teacher salaries influence reading achievement of sixth grade students and math achievement of both third and sixth grade students in all

school districts studied. This may be due to several circumstances. Teachers leave the education profession because they see limited financial reward for remaining. Teachers leave the profession because of stress due to the nature of a litigation-oriented society and lack of parental support. Teachers who remain in the profession may suffer from teacher burnout and lack the dedication and commitment to the educational achievement of children. Teachers who remain in the profession may be unable to obtain employment elsewhere because of limited qualifications and/or abilities.

(5) The researcher did not conduct this study with the intended purpose to find support or opposition to the issue of school consolidation. If the purpose of school consolidation is to spend equal dollars per student, the results of this study show that consolidation should be considered as a remedy to spend equal amounts for all students. This study showed that there are differences in the instruction-related expenditures per student. If the intended purpose of consolidation is to equalize student achievement, the results of this study do not support consolidation. The study showed that there were no significant differences between achievement from poorer districts and students from wealthier districts. When consideration is given to practical significance over statistical significance, the limiting factors influencing student achievement reflect more on the nature of the community where the school district is located than the financial wealth and effort of

the school district. Consolidating isolated school districts would be inappropriate as a remedy for the improvement of student achievement.

(6) The researcher did not conduct this study with the intended purpose of supporting or opposing the decision made by District Court Judge Loble with respect to the school funding equity lawsuit in Montana *(Helena Elementary School District #1 et al. v. State of Montana, 1988)*. As with the issue of school consolidation, results of this study were subject to different interpretations. Considering that the school funding lawsuit centered on equality of opportunity for student achievement, the results of this study showed that students from poor school districts did not have achievement results significantly different students from wealthy school districts. However, when consideration was given to instruction-related expenditures, there were differences in the costs involved to equalize student achievement between poor and wealthy districts. The results of this study showed that cost expenditures were not equal.

Recommendations

Based on the findings of this study, the researcher recommends the following research:

(1) A study should be conducted to describe and determine the type of programs that provide enhancement/enrichment opportunities for preschool and primary school-aged children in Class 3 school districts. Such descriptive

research could provide models to other Class 3 school districts for adaptation.

(2) The researcher recommends that school districts and communities join in partnerships to provide for the needs of their elementary school children. Such partnerships should recruit support from businesses internal and external to the community to provide programs that would enhance student achievement. Montana colleges and universities should also participate in these alliances.

(3) The State of Montana should assume the responsibility of providing earmarked funds to be used by isolated school districts for programs and projects aimed at enhancing the development of skills children need for educational achievement. The use of these funds could include fees required for participation in bookmobile library services or telecommunication networking.

(4) A study should be conducted to determine if there is any correlation between low-achieving third grade students in Class 3 elementary school districts and students who later drop out of school.

(5) A statewide plan for equalization of maximum teacher salaries should be investigated. The State should assume the financial responsibility for a portion of maximum teacher salaries. Participation in continued staff development programs, implemented and financed by the State, should be established as a qualifying incentive in order for experienced teachers to

receive higher maximum salaries. This would not place additional financial stress on less wealthy school districts.

(6) A study should be conducted to determine the relationship between school district wealth and the achievement of high school students.

(7) A study should be conducted to determine if increases in school district wealth provide more educational opportunities which, in turn, could improve student achievement.

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APPENDICES

APPENDIX A

BREAKDOWN ANALYSIS OF ACHIEVEMENT TEST NCEs BY CLASS

Table 45. Analysis of achievement test NCEs by class.

Strata	Mean	Standard Deviation	Number of Cases
Third Grade Reading:			
Class 1	56.6128	17.2340	17
Class 2	41.0430	24.2312	100
Class 3	29.1890	28.8728	102
All Classes	36.8000	27.1890	219
Between Groups:	F-Ratio = 10.497;	F-Probability = .0000	
Third Grade Mathematics:			
Class 1	54.6245	23.3663	17
Class 2	37.4520	26.4451	100
Class 3	31.0630	28.7803	102
All Classes	35.8530	27.3411	219
Between Groups:	F-Ratio = 5.71119;	F-Probability = .0038	
Sixth Grade Reading:			
Class 1	55.1000	16.9999	17
Class 2	40.2540	24.2937	100
Class 3	28.8740	28.6917	102
All Classes	36.1728	25.9898	219
Between Groups:	F-Ratio = 9.6843;	F-Probability = .0001	
Sixth Grade Mathematics:			
Class 1	53.2059	23.6149	17
Class 2	39.8200	25.5593	100
Class 3	31.7220	28.4377	102
All Classes	37.1369	26.7961	219
Between Groups:	F-Ratio = 5.5998;	F-Probability = .0043	

APPENDIX B

RESULTS OF FORWARD STEPWISE MULTIPLE REGRESSION PROCEDURES RELATED TO THIRD AND SIXTH GRADE READING AND MATHEMATICS ACHIEVEMENT

Table 46. Summary table: Results of forward stepwise multiple regression procedures revealing statistically significant magnitude of R^2 of each independent variable on the dependent variables of third and sixth grade reading and mathematics achievement.

Independent Variable	3rd Grade Reading (Percent)	3rd Grade Mathematics (Percent)	6th Grade Reading (Percent)	6th Grade Mathematics (Percent)
All School Districts in Study:				
BSALARY	9	NS	NS	NS
MSALARY	NS	3	9	5
LUNCH	12	NS	NS	NS
ANB	NS	NS	NS	NS
TCHANB	NS	NS	NS	NS
Class 3 School Districts:				
BSALARY	9	NS	9	NS
MSALARY	NS	NS	NS	NS
LUNCH	13	NS	NS	NS
ANB	NS	NS	NS	NS
TCHANB	NS	NS	NS	NS

NS = No significantly unique contribution to the variability of the independent variables

APPENDIX C

MONTANA PUBLIC ELEMENTARY

SCHOOL DISTRICT SURVEY

MONTANA PUBLIC ELEMENTARY SCHOOL DISTRICT SURVEY

Survey information for _____ Elementary School.

District located in _____ County, Montana.

Please respond to all questions with data from the 1986-87 school year.

(1) Name of norm referenced achievement test used by your district for third grade: _____

(2) NCE* of the mean composite score on reading achievement tests for ***all*** third graders: _____

(a) NCE* for ***female*** third graders: _____**
(b) NCE* for ***male*** third graders: _____**

(3) NCE* of the mean composite score on mathematics achievement tests for ***all*** third graders: _____

(a) NCE* for ***female*** third graders: _____**
(b) NCE* for ***male*** third graders: _____**

(4) Name of norm referenced achievement test used by your district for sixth grade: _____

(5) NCE* of the mean composite score on reading achievement tests for ***all*** sixth graders: _____

(a) NCE* for ***female*** sixth graders: _____**
(b) NCE* for ***male*** sixth graders: _____**

(6) NCE* of the mean composite score on mathematics achievement tests for ***all*** sixth graders: _____

(a) NCE* for ***female*** sixth graders: _____**
(b) NCE* for ***male*** sixth graders: _____**

Survey, cont'd.

(7) What percentage of students in your district qualified for free and/or reduced lunch during the 1986-87 school year? _____

(8) Please check the appropriate classification for your school district:

[ ] Class I -- population of 6,500 or more
[ ] Class II -- population of less than 6,500 but more than 1,000
[ ] Class III -- population of less than 1,000

*NCE refers to normal curve equivalents. (Percentile scores may be used.)
**If data is not available for these categories, mark "N/A."

Please return this and a copy of your district's ***1986-87 Teacher Salary Schedule Placement Matrix*** to:

Joyce Calhoun
MSU Department of Education
213 Reid Hall
Bozeman, MT 59717-9947

APPENDIX D

APPLICATION FOR TAX LEVIES AND STATE EQUALIZATION FORM

87 Part 1 — Budget for Year Beginning July 1, 1987 Application for Tax Levies and State Equalization

Elementary School Dist. No. _____, _____, _____, Montana
City; if none, school — County

1. District Total ANB	Foundation Program: 2. District Share (Non-Isolated Only)	Foundation Program: 3. County and State Share	4. Permissive Amount Used	5. Over Schedule Amount	6. Total General Fund Budget	FOR OPI USE ONLY: Co.	Legal Entity	JDC	NBU	INDC
	$	$	$	$	$					

7. General Fund Reserve	8. Cash Reappropriated	9. Non-Tax Revenue	10. Taxable Valuation Dollars Only	11. PI Days	12. PIR Days	DISTRICT LEVIES IN MILLS: 13. General Fund	14. Transportation Fund
$	$	$	$				

DISTRICT LEVIES IN MILLS: 15. Bus Reserve Fund	16. Tuition Fund	17. Debt Service Fund	18. Building Reserve Fund	19. Comp. Insur. Fund	20. Adult Ed. Fund	21. Amount of Outstanding Bonds Dollars Only	22. Allowable Cost Special Ed. Dollars Only
						$	$

FOR OPI USE ONLY

23. School Budget Unit	24. No. of Teachers (FTE)	25. Isolated Yes or No	Aggregate Days: 26. Present	27. Absent	Additional Approved ANB: 29. New Kinder-Garten	30. Transfer	31. Unusual Enroll. Increase	32. Open or Reopen	33. TOTAL ANB	34. Foundation Program Dollars	Cents	FOR OPI USE ONLY: Isolated	Accr. Jr. Hi.	Pairs: Schedule	Budget Unit	Legal Entity
01											$					
02																
03																
04																
05																
06																
07																
08																
09																
10																

FOR JOINT DISTRICTS ONLY — APPORTIONMENT INFORMATION—ALL PORTIONS

35. No. of Portions	Located Portion—No. 1: 36. Co.	37. ANB	38. Taxable Valuation Dollars Only	Non-Located Portion—No. 2: 39. Co.	40. ANB	41. Taxable Valuation Dollars Only	Non-Located Portion—No. 3: 42. Co.	43. ANB	44. Taxable Valuation Dollars Only
			$			$			$

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COUNTY _____ DIST. _____

01. GENERAL FUND BUDGET		Actual Expenditure, Last Completed School Year 1985-86	Approved Expenditure Current Year 1986-87	Ensuing School Year Expenditures	
				Preliminary 1987-88	Approved 1987-88
1. EXPENDITURES—REGULAR PROGRAMS					
10. Instructional Services					
101-1-10-112	Regular Salaries, Teachers				
101-1-10-117	Regular Salaries, Aides				
101-1-10-120	Temporary Salaries				
101-1-10-260	Health Insurance				
101-1-10-270	Life and Disability Insurance				
101-1-10-320	Professional-Educational Services				
101-1-10-340	Technical Services				
101-1-10-440	Repair and Maintenance Services				
101-1-10-451	Rental of Land and Buildings				
101-1-10-580	Travel				
101-1-10-610	Supplies				
101-1-10-640	Textbooks				
101-1-10-650	Periodicals				
101-1-10-660	Minor New Equipment				
101-1-10-670	Minor New Equipment-Replacement				
101-1-10-680	Computer Software				
101-1-10-730	Major New Equipment				
101-1-10-740	Major New Equipment-Replacement				
20. Supportive Services—Instructional					
101-1-20-113	Regular Salaries, Professional				
101-1-20-115	Regular Salaries, Clerical				
101-1-20-120	Temporary Salaries				
101-1-20-260	Health Insurance				
101-1-20-270	Life and Disability Insurance				
101-1-20-320	Professional-Educational Services				
101-1-20-340	Technical Services				
101-1-20-440	Repair and Maintenance Services				
101-1-20-450	Rental				
101-1-20-580	Travel				
101-1-20-610	Supplies				
101-1-20-650	Periodicals				
22. Educational Media Services					
101-1-22-112	Regular Salaries, Teachers				
101-1-22-120	Temporary Salaries				
101-1-22-260	Health Insurance				
101-1-22-270	Life and Disability Insurance				
101-1-22-320	Professional-Educational Services				
101-1-22-340	Technical Services				
101-1-22-440	Repair and Maintenance Services				
101-1-22-450	Rental				
101-1-22-580	Travel				
101-1-22-610	Supplies				
101-1-22-640	Books				
101-1-22-650	Periodicals				
101-1-22-660	Minor Equipment				

COUNTY _____ DIST. _____

01. GENERAL FUND BUDGET		Actual Expenditure, Last Completed School Year 1985-86	Approved Expenditure Current Year 1986-87	Ensuing School Year Expenditures	
				Preliminary 1987-88	Approved 1987-88
23. General Administrative Services					
101-1-23-111	Regular Salaries, Administrators				
101-1-23-115	Regular Salaries, Clerical				
101-1-23-260	Health Insurance				
101-1-23-270	Life and Disability Insurance				
101-1-23-320	Professional-Educational Services				
101-1-23-340	Technical Services				
101-1-23-350	Contracted Services				
101-1-23-440	Repair and Maintenance Services				
101-1-23-450	Rental				
101-1-23-580	Travel				
101-1-23-610	Supplies				
101-1-23-850	Interest on Warrants				
24. Building Administrative Services					
101-1-24-111	Regular Salaries, Principals				
101-1-24-115	Regular Salaries, Clerical				
101-1-24-260	Health Insurance				
101-1-24-270	Life and Disability Insurance				
101-1-24-340	Technical Services				
101-1-24-580	Travel				
101-1-24-610	Supplies				
26. Operation & Maintenance Services					
101-1-26-114	Regular Salaries, Technical				
101-1-26-260	Health Insurance				
101-1-26-270	Life and Disability Insurance				
101 1-26-350	Contracted Services				
101-1-26-410	Heat for Buildings				
101-1-26-420	Utilities, except heating				
101-1-26-440	Replacement & Parts				
101-1-26-520	Insurance				
101-1-26-600	Other Supplies & Expenses				
40. Replacement Equipment					
101-1-40-740	Major Equipment-Replacement				
41. Sites—Acquisition					
101-1-41-710	Sites—Acquisition				
45. Buildings					
101-1-45-720	Buildings				
46. Remodeling Services					
101-1-46-460	Remodeling Services				

COUNTY _____ DIST. _____

01. GENERAL FUND BUDGET		Actual Expenditure, Last Completed School Year 1985-86	Approved Expenditure Current Year 1986-87	Ensuing School Year Expenditures	
				Preliminary 1987-88	Approved 1987-88
2. EXPENDITURES - SPECIAL PROGRAMS					
10. Instructional Services					
101-2-10-111	Regular Salaries, Directors				
101-2-10-112	Regular Salaries, Teachers				
101-2-10-117	Regular Salaries, Aids				
101-2-10-260	Health Insurance				
101-2-10-270	Life and Disability Insurance				
101-2-10-320	Professional-Educational Services				
101-2-10-340	Technical Services				
101-2-10-350	Contracted Services				
101-2-10-580	Travel				
101-2-10-610	Supplies, Instructional				
20. Transportation Services					
101-2-27-514	Room and Board				
101-2-21-580	Travel, Support Services				
3. EXPENDITURES–VOCATIONAL PROGRAMS					
10 Instructional Services					
101-3-10-112	Regular Salaries, Teachers				
101-3-10-117	Regular Salaries, Aides				
101-3-10-260	Health Insurance				
101-3-10-270	Life and Disability Insurance				
101-3-10-320	Professional-Educational Services				
101-3-10-340	Technical Services				
101-3-10-440	Repair and Maintenance Services				
101-3-10-451	Rental of Land and Buildings				
101-3-10-580	Travel				
101-3-10-610	Teaching Supplies				
101-3-10-640	Textbooks				
101-3-10-650	Periodicals				
101-3-10-660	Minor New Equipment				
101-3-10-670	Minor New Equipment-Replacement				
101-3-10-730	Major New Equipment				
101-3-10-740	Major New Equipment-Replacement				
7. EXPENDITURES - EXTRACURRICULAR ACT.					
34. School Sponsored Extracurricular Activities					
101-7-34-112	Regular Salaries				
101-7-34-580	Travel				
101-7-34-610	Supplies				
35. School Sponsored Athletics					
101-7-35-112	Regular Salaries				
101-7-35-580	Travel				
101-7-35-610	Supplies				

COUNTY _____ DIST. _____

01. GENERAL FUND BUDGET	Actual Expenditure, Last Completed School Year 1985-86	Approved Expenditure Current Year 1986-87	Ensuing School Year Expenditures	
			Preliminary 1987-88	Approved 1987-88
9. EXPENDITURES - SCHOOL FOOD SERVICES				
31. School Food Services				
101-9-31-570 School Food Services				
Total General Fund Expenditures				
New Cash ADDED to Reserve (Not Cash Balance Retained as Reserve)				
Total Authorized General Fund Budget				
REVENUES				
Revenues - District				
101-1110 District Levies				
101-1210 Motor Vehicle Fees				
101-1310 Regular School Tuition				
101-1320 Summer School Tuition				
101-1330 Special Education Tuition				
101-1510 Interest				
101-1900 Miscellaneous Revenue				
101-5300 Transfer from Housing & Dorm. Cash Reappropriated				
Revenues - County				
101-2110 County Equalization				
Revenue - State				
101-3110 State Equalization				
101-3120 State Permissive				
101-3320 State Bonus				
101-3310 State Impact				
101-3410 Motor Vehicle Reimbursement				
Revenue - Federal				
101-4820 Federal Impact (P.L. 874)				
Total General Fund Revenues				

COUNTY _____ DIST. _____

10. TRANSPORTATION FUND BUDGET	Actual Expenditure, Last Completed School Year 1985-86	Approved Expenditure Current Year 1986-87	Ensuing School Year Expenditures	
			Preliminary 1987-88	Approved 1987-88
1. EXPENDITURES - REGULAR PROGRAMS				
27. Student Transportation Services				
110-1-27-111 Regular Salaries, Professional				
110 1-27-114 Regular Salaries, Drivers				
110-1-27-115 Regular Salaries, Clerical				
110-1-27-260 Health Insurance				
110-1-27-270 Life and Disability Insurance				
110-1-27-320 Professional-Educational Services				
110-1-27-340 Technical Services				
110-1-27-440 Repair and Maintenance Services				
110-1-27-450 Rental				
110 1 27-511 Contracted Services-Other Districts				
110-1 27-513 Contracted Services-Private Contr.				
110-1-27-514 Individual Contracts				
110-1-27-515 Contingency				
110 1-27-520 Insurance				
110-1-27-610 Supplies				
110-1-27-624 Gasoline				
110-1-27-730 Major New Equipment (Buses)				
110-1-27-734 Other Equipment				
110-1-27-740 Major New Equip.-(Replacement Bus)				
110-1-27-840 Retirement Prior Year's Warrants (Deficit Balance)				
110-1-27-850 Interest on Warrants				
2. EXPENDITURES - SPECIAL PROGRAMS				
27. Student Transportation Services				
110-2-27-111 Regular Salaries, Professional				
110-2-27-114 Regular Salaries, Drivers				
110-2-27-115 Regular Salaries, Clerical				
110-2-27-260 Health Insurance				
110-2-27-270 Life and Disability Insurance				
110-2-27-320 Professional-Educational Services				
110-2-27-340 Technical Services				
110-2-27-440 Repair and Maintenance Services				
110-2-27-450 Rentals				
110-2-27-511 Contracted Services-Other Districts				
110-2-27-513 Contracted Services-Private Contr.				
110-2-27-514 Individual Contracts				
110 2-27-515 Contingency				
110-2-27-520 Insurance				
110-2-27-610 Supplies				
110-2-27-624 Gasoline				
110 2-27-730 Major New Equipment (Buses)				
110-2-27-734 Other Equipment				
110-2-27-740 Major New Equip.-(Replacement Bus)				
110-2-27-840 Retirement Prior Year's Warrants (Deficit Balance)				
110-2-27-850 Interest on Warrants				
Total Transportation Expenditures				
New Cash ADDED to Reserve (Not Cash Balance Retained as Reserve)				
Total Authorized Transportation Budget				

COUNTY _____ DIST. ____

10. TRANSPORTATION FUND BUDGET	Actual Expenditure, Last Completed School Year 1985-86	Approved Expenditure Current Year 1986-87	Ensuing School Year Expenditures	
			Preliminary 1987-88	Approved 1987-88
REVENUES				
Revenue - District				
110-1110 District Levies				
110-1210 Motor Vehicle Fees				
110-1410 Payments-Individual				
110-1420 Payments-Other Districts				
110-1510 Interest				
110-1900 Other				
110-1930 Sale of Property				
Cash Reappropriated				
Revenue - County				
110-2220 County Reimbursement				
Revenue - State				
110-3210 State Reimbursement				
110-3410 Motor Vehicle Reimbursement				
Revenue - Federal				
110-4820 Federal Impact (P.L. 874)				
Total Transportation Fund Revenue				

Transportation Schedule Data for Expenditures Authorized by SECTION 20-10-141 and SECTION 20-10-142.

a. On Schedule (Topic 4, School Finance and Statistics Reference Manual)	$	$
b. Maximum Reimbursable Amount (line a + 110-1-27-515 + 110-2-27-515)	$	$
c. 1/3 Maximum Reimbursable Amount (line b ÷ 3)	$	$
d. Amount Over Schedule (Total authorized transportation budget less line b)	$	$

COUNTY _____ DIST. _____

11. BUS DEPRECIATION RESERVE FUND BUDGET	Actual Expenditure, Last Completed School Year 1985-86	Approved Expenditure Current Year 1986-87	Ensuing School Year Expenditures	
			Preliminary 1987-88	Approved 1987 88
1. EXPENDITURES–REGULAR PROGRAMS				
27. Acquisition Services				
111-1-27-740 Major Equip.-Replacement Bus				
2. EXPENDITURES–SPECIAL PROGRAMS				
27. Acquisition Services				
111-2-27-740 Major Equip.-Replace Spec. Ed. Bus				
Total Bus Depreciation Reserve Expenditures				
REVENUES - ALL PROGRAMS				
111-1110 District Levy				*
111-1210 Motor Vehicle Fees				
111-1510 Interest				
111-3410 Motor Vehicle Reimbursement				
Total Bus Depreciation Reserve Revenue				
Schedule	Date of Purchase	Cost to District	Amount in Depreciation Fund	Requirement Ensuing Year
Bus A		$	$	$
Bus B				
Bus C				
Bus D				
* These items must agree in amount.		TOTAL	$	$ *

COUNTY _____ DIST. _____

13. TUITION FUND BUDGET	Actual Expenditure, Last Completed School Year 1985-86	Approved Expenditure Current Year 1986-87	Ensuing School Year Expenditures	
			Preliminary 1987-88	Approved 1987-88
1. EXPENDITURES–REGULAR PROGRAMS				
10. Instructional Services				
113-1-10-560 Tuition				
113-1-10-840 Retirement Prior Year's Warrants				
113-1-10-850 Interest				
2. EXPENDITURES–SPECIAL PROGRAMS				
10. Instructional Services				
113-2-10-560 Tuition				
113-2-10-840 Retirement Prior Year's Warrants				
113-2-10-850 Interest				
Total Tuition Fund Expenditures				
REVENUES				
Revenue - District				
113-1110 District Levy				
113-1210 Motor Vehicle Fees				
113-1510 Interest				
113-1900 Miscellaneous Revenue				
Cash Reappropriated				
Revenue - State				
113-3410 Motor Vehicle Reimbursement				
Revenue - Federal				
113-4820 Federal Impact (P.L. 874)				
Total Tuition Fund Revenue				

COUNTY _____ DIST. _____

14. RETIREMENT FUND BUDGET	Actual Expenditure, Last Completed School Year 1985-86	Approved Expenditure Current Year 1986-87	Ensuing School Year Expenditures	
			Preliminary 1987-88	Approved 1987-88
1. EXPENDITURES—REGULAR PROGRAMS				
114-1-00-210 Social Security				
114-1-00-220 Contribution, TRS				
114-1-00-230 Contribution, PERS				
114-1-00-240 Contribution, Unemployment				
114-1-00-840 Retirement Prior Year's Warrants				
114-1-00-850 Interest on Warrants				
2. EXPENDITURES—SPECIAL PROGRAMS				
114-2-00-210 Social Security				
114-2-00-220 Contribution, TRS				
114-2-00-230 Contribution, PERS				
114-2-00-240 Contribution, Unemployment				
114-2-00-840 Retirement Prior Year's Warrants				
114-2-00-850 Interest on Warrants				
New Cash ADDED to Reserve (Not Cash Balance Retained as Reserve)				
Total Retirement Fund Expenditures				
REVENUES				
Revenue - District				
114-1510 Interest				
114-1900 Miscellaneous Revenue				
Cash Reappropriated				
Revenues—County				
114-2200 County Reimbursement				
Revenues—Federal				
114-4820 Federal Impact (P.L. 874)				
Total Retirement Fund Revenues				

COUNTY _____ DIST. _____

16. COMPREHENSIVE INSURANCE FUND BUDGET		Actual Expenditure, Last Completed School Year 1985-86	Approved Expenditure Current Year 1986-87	Ensuing School Year Expenditures	
				Preliminary 1987-88	Approved 1987-88
EXPENDITURES					
116-0-00-520	Insurance				
116-0-00-250	Worker's Compensation				
116-0-00-840	Retirement Prior Year's Warrants				
116-0-00-850	Interest on Warrants				
New Cash ADDED to Reserve (Not Cash Balance Retained as Reserve)					
Total Insurance Fund Expenditures					
REVENUES					
Revenues - District					
116-1110	District Levy				
116-1210	Motor Vehicle Fees				
116-1510	Interest				
116-1900	Miscellaneous Revenue				
	Cash Reappropriated				
Revenues - State					
116-3410	Motor Vehicle Reimbursement				
Revenues - Federal					
116-4820	Federal Impact (P.L. 874)				
Total Comprehensive Insurance Fund Revenue					

COUNTY _____ DIST. _____

17. ADULT EDUCATION FUND BUDGET		Actual Expenditure, Last Completed School Year 1985-86	Approved Expenditure Current Year 1986-87	Ensuing School Year Expenditures	
				Preliminary 1987-88	Approved 1987-88
4. EXPENDITURES—ADULT BASIC PROGRAMS					
117-4-10-112	Regular Salaries, Teachers				
117-4-10-260	Health Insurance				
117-4-10-270	Life and Disability Insurance				
117-4-10-451	Rent				
117-4-10-610	Instructional Supplies				
117-4-10-660	Minor Equipment				
117-4-10-840	Retirement Prior Year's Warrants				
117-4-10-850	Interest on Warrants				
Subtotal—Adult Basic Expenditures					
6. EXPENDITURES—GENERAL PROGRAMS					
117-6-10-112	Regular Salaries, Teachers				
117-6-10-260	Health Insurance				
117-6-10-270	Life and Disability Insurance				
117-6-10-451	Rent				
117-6-10-610	Instructional Supplies				
117-6-10-660	Minor Equipment				
117-6-10-840	Retirement Prior Year's Warrants				
117-6-10-850	Interest on Warrants				
Subtotal—General Expenditures					
Total Adult Education Fund Expenditures					
REVENUES					
Revenues—District					
117-1110	District Levy				
117-1210	Motor Vehicle Fees				
117-1341	Registration Fees				
117-1510	Interest				
117-1900	Miscellaneous Revenue				
117-1920	Donations				
	Cash Reappropriated				
Revenues—State					
117-3250	Reimbursement - State				
117-3410	Motor Vehicle Reimbursement				
Revenues—Federal					
117-4540	Reimbursement—Federal				
Total Adult Education Fund Revenues					

COUNTY _____ DIST. _____

50. DEBT SERVICE FUND BUDGET

Date of Maturity	Date of Issue	Amount Originally Issued	Amount Outstanding	Rate of Interest	TAX REQUIREMENT Principal	Interest	TOTAL
		$	$	%	$	$	$
		$	$	%	$	$	$
		$	$	%	$	$	$
		$	$	%	$	$	$
		$	$	%	$	$	$
			Total Bond Requirement		$	$	$

Special Improvement Districts				

Total Requirement $_____

		Actual Expenditure, Last Completed School Year 1985-86	Approved Expenditure Current Year 1986-87	Ensuing School Year Expenditures	
				Preliminary 1987-88	Approved 1987-88
EXPENDITURES					
150-0-50-830	Special Assessments				
150-0-50-840	Principal on Bonds				
150-0-50-850	Interest on Bonds				
Total Debt Service Fund Expenditures					
REVENUES					
159-1110	District Levy				
150-1210	Motor Vehicle Fees				
150-1510	Interest				
150-1900	Miscellaneous Revenue				
150-1930	Sale of Property				
150-3410	Motor Vehicle Reimbursement				
	Cash Reappropriated				
Total Debt Service Fund Revenues					

Debt Service If the Debt Service Levy is not uniform for the entire district, enter below the amount of outstanding bonds, the taxable valuation applicable and the mill levy for each portion and put an asterisk in Item 17 on Page 1.

Portion of District (Use County Assessor's Designation)	Amount of Outstanding Bonds Dollars Only	Taxable Valuation Dollars Only	Levy in Mills
	$	$	
	$	$	
	$	$	

COUNTY _____ DIST. _____

61. BUILDING RESERVE FUND BUDGET		Actual Expenditure, Last Completed School Year 1985-86	Approved Expenditure Current Year 1986-87	Ensuing School Year Expenditures	
				Preliminary 1987-88	Approved 1987-88
EXPENDITURES					
161-0-40-460	Remodeling, improvements				
161-0-40-710	Land and Improvements				
161-0-40-720	Building				
161-0-40-730	New Equipment				
161-0-40-740	Replacement Equipment				
Total Building Reserve Fund Expenditures					
REVENUES					
161-1110	District Levy				
161-1210	Motor Vehicle Fees				
161-1510	Interest				
161-1900	Miscellaneous Revenue				
161-3410	Motor Vehicle Reimbursement				
Total Building Reserve Fund Revenues					

Election Date	Total Authorized*	No. of Years	Amount in Fund

*May not exceed 45% of taxable valuation.

DIST. _____ COUNTY _____

BUDGET AND TAX LEVY SUMMARY

Fund	Approved Expenditure	Cash Reappropriated to Reduce Levies	Est. Revenue Excluding Cash Reappropriated & Dist. Levies	—District Tax Levies Required— Amount	Mill Rate	
General	$	$	$	$	.	
Transportation					.	
Bus Reserve		XXXXXXXXXXXXXXXX		*	.	
Tuition					.	
Retirement				XXXXXXXXXXXXXXXXX	XXXXX	XXX
Debt Service					.	
Building Reserve		XXXXXXXXXXXXXXXX		*	.	
Comp. Insurance					.	
Adult Education					.	
Total All Funds	$	$	$	$		

Taxable Valuation, Common School District $_____

*Amount allowed under law.

STATEMENT OF CASH BALANCES as of June 30, 1987

(1) Fund	(2) Co. Treas. Cash Balance Include Investments	(3) Outstanding Warrants	(4) Authorized Obligations	Percent Reserve Allowed	(5) Cash Retained as Reserve	(6) Spec. Ed. Allowable Costs Balance	(7) Transferred to Fund 21	(8) Cash for Reappropriation*
General	$	$	$	35	$	$	$	$
Transportation				20		XXXXXXXX	XXXXXXXX	
Bus Reserve				∞		XXXXXXXX	XXXXXXXX	XXXXXXXXXXX
Tuition				XXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	
Retirement				35		XXXXXXXX	XXXXXXXX	
Debt Service				XXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	
Building Reserve				∞		XXXXXXXX	XXXXXXXX	XXXXXXXXXXX
Comp. Insurance				35		XXXXXXXX	XXXXXXXX	
Adult Education				35**		XXXXXXXX	XXXXXXXX	

*Add columns 3 through 7, then subtract total from column 2.

**Adult Basic Education Only

STATEMENT OF SPECIAL EDUCATION ALLOWABLE COSTS BALANCE as of June 30, 1987.

(1)	(2) 1986-87 Approved Allowable Cost	(3) Allowable Costs Expenditures	(4) Cash Retained as Reserve	(5) Allowable Costs Balance
Special Education—Regular	$	$	XXXXXXXXXXXXXX	$
Special Education—Contingency	$	$	XXXXXXXXXXXXXX	$

MOTOR VEHICLE FEE RECONCILIATION*

	1. 1986-87 Receipts	2. 1986-87 Budget	Permissive Adjustment Box 1 minus 2 (+ or −)

*Balance will be calculated with Permissive.

CERTIFICATES County_____, Dist._____

A. APPROVAL OF BUDGET
This budget is approved by the Board of Trustees of District No._____, _____ County. Date _____

Signed _____ Chairman, Board of Trustees _____ Clerk, Board of Trustees

B. AUTHORIZATION OF SPECIAL LEVY FOR GENERAL FUND BUDGET
At an election held on_____, 19_____, an expenditure of $_____ requiring a tax levy of approximately _____ mills was authorized for District No._____, _____ County.

Signed _____ Clerk, Board of Trustees

C. APPROVAL OF ISOLATION
The Board of County Commissioners, the County Superintendent of Schools and the Superintendent of Public Instruction have approved ( ), disapproved ( ) the application for isolation in accordance with Section 20-9-302, MCA.

Date _____ Signed _____ County Superintendent

D. APPROVAL OF SITUATIONS AFFECTING THE SCHOOL DISTRICT BUDGET

1. Opening or Reopening of School Not Operating Last Year

The County Superintendent of_____ County, Montana, certifies that the _____ School which was not in operation last year has met the requirements for _____ (opening or reopening) prescribed by Section 20-9-313, MCA, and is approved for _____ (opening or reopening) by the County Commissioners, and further certifies that written approval of such _____ (opening or reopening) has been granted by the Superintendent of Public Instruction.

Date _____ Signed _____ County Superintendent

2. Transfer From Closed School or From Special Education Classroom

The Superintendent of Public Instruction, according to Section 20-9-313, MCA, has approved a transfer of _____ ANB.

Date _____ Signed _____ County Superintendent

3. Unusual Enrollment Increase
The County Superintendent of_____ County, Montana, certifies that the _____ School is entitled to increase its ANB by _____ under the provisions of Section 20-9-313 as approved by the Superintendent of Public Instruction.
Date _____ Signed _____ County Superintendent

4. Anticipated Special Education Program
The Superintendent of Public Instruction, in accordance with Section 20-7-431, MCA, has approved the use of $ _____ for this district's special education program.

Date _____ Signed _____ County Superintendent

5. Kindergarten Program
The Superintendent of Public Instruction, in accordance with Section 20-9-313, MCA, has approved the use of _____ ANB for the initial year of operating a kindergarten program.

Date _____ Signed _____ County Superintendent

6. Early Graduation (Certificate for High Schools only)
The Superintendent of Public Instruction, in accordance with Section 20-9-313, MCA, has approved the use of _____ ANB for early graduation of students.

Date _____ Signed _____ County Superintendent

E. LEVY OF SCHOOL DISTRICT TAXES

The Board of County Commissioners of _____ County, Montana, certifies that, on the second Monday in August of the current year, the following school district taxes were levied: For the General Fund: _____ mills; For the Transportation Fund: _____ mills; For the Bus Reserve Fund: _____ mills; For the Tuition Fund: _____ mills; For the Debt Service Fund: _____ mills; For the Building Reserve Fund: _____ mills; For the Comprehensive Insurance Fund: _____ mills; For the Adult Education Fund: _____ mills.

Date _____

Signed _____ Chairman, Board of County Commissioners

Signed _____ County Superintendent