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AN ANALYSIS OF GRADE-LEVEL EXPENDITURES OF AT-RISK FUNDING
AMONG DISTRICTS OF DIFFERENT ECONOMIC STATUS
IN THE STATE OF MICHIGAN

by

Benard A. Meyer

A Dissertation
Submitted to the
Faculty of The Graduate College
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requirements for the
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Department of Educational Leadership

Western Michigan University
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AN ANALYSIS OF GRADE-LEVEL EXPENDITURES OF AT-RISK FUNDING
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Benard A. Meyer, Ed.D.

Western Michigan University, 1999

Many of the recent financial reforms failed to address the needs of at-risk children. Effective solutions to the problems of the educationally disadvantaged must include changes within the schools, how the schools are funded, and how the schools spend their funding.

Michigan's 1994 finance reform included a funded plan for "unequal treatment of unequals" directed for the support of at-risk students. This fund was called Section 31a Program for At-Risk Pupils and involved a 230 million dollar compensatory education funding allowance for students at risk of school failure.

This study presented here will determine if there is a relationship between three related variables regarding Section 31a funding for at risk students in the State of Michigan. The study establishes how at-risk money is being used to address the needs of at-risk K-5, 6-8, and 9-12 students in addition to determining if economic differences between districts result in a different pattern of spending.

Research involved two statistical techniques to measure the data: Spearman Rho and two-way analysis of variance (ANOVA). The population for this study was

a sample of 105 school districts in the State of Michigan broken down into three economic groups representing wealthy, intermediate, and poor districts.

Analysis of data revealed a moderately positive correlation between what the surveyed districts “say” and what they “do” with Section 32a funding. The identification of the most important grade level for intervention showed a strong, positive correlation between what districts “say” and what districts “do” with at-risk money. In the ANOVA studies, three categories of district wealth and three categories of grade level resulted in a split between no difference in spending to some significant differences.

Further research should center around alternative ways of measuring student success. With achievement difficult to define, other variables of achievement, such as financial earnings, quality of life, contentment, and successful marriages and families, are potential variables to determine success. Making these factors dependent variables instead of dollars spent may be a better way to establish student success.

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Let me leave these lines by Arthur Hugh Clough to everyone who dreams a dream:

Say not the struggle naught availeth,
For while the tired waves, vainly breaking,
Seem here no painful inch to gain,
Far back, through creeks and inlets making,
Comes silent, flooding in the main.

Benard A. Meyer

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CHAPTER I

INTRODUCTION

Background of the Problem

Quality education is not an expense; it is an investment in the future of our nation. The nation's public schools have traditionally provided a common pathway out of poverty and a roadway to the American Dream. But today, in too many communities, schools are hard pressed to serve the needs of disadvantaged children. With powerful social forces swirling around them, the schools are poorly equipped to respond to the multidimensional problems of poor and minority youngsters (Committee of Economic Development [CED], 1987). Children born into poverty often suffer from disadvantages that impair their ability to learn, achieve, and live productive and fulfilling lives. These children are at-risk children. In recent years, the nation has responded and made an unprecedented commitment to improving the quality of education. Yet many of the recent reforms fail to address the needs of at-risk children. Effective solutions to the problems of the educationally disadvantaged must include changes within the schools, how the schools are funded, and how the schools spend their funding. Solutions must also reach beyond the academic school setting to improve the environment of the youngster. Early and continuous

intervention may be the only way to break the cycle of at-risk children. Each year, more than 1 million young people leave the public schools without graduating. Most of them are deficient in basic skills, marginally literate, and virtually unemployable. Another million will graduate but will be as deficient in employable skills and work habits as the dropouts. The nation can ill afford such a waste of human resources. It makes no economic sense to educate poorly half of our young people and to condemn the lowest-achieving students to the fringes of society. Allowing this to continue will not only impoverish these children, it will also impoverish our nation—culturally, politically, and economically (CED, 1987).

The provision of equal opportunities to learn for all children and all schools is one of the most fundamental and enduring ideals of the republic and provides a foundation stone on which strategies to reform schools may be built (Verstegen, 1993). Lack of equal opportunity, particularly equality in funding is viewed as a major shortcoming in educational quality. Is it possible to provide equal opportunities for academic excellence to all children and all schools? Is it possible that finance systems can drive and guide excellence in education for all children and all schools? The degree to which the level of funding affects the quality of education is an important question (Connors, 1982).

Recent Public Opinion on Education

Review of the literature reveals education in America is now focusing on special-needs students. The public's regard for the quality of education in America has grown significantly in the last two decades. The American public thinks the state of its education system is not satisfactory (Kantrowitz, 1993). "Lack of proper financial support" shared first place with "the use of drugs" as the two most important problems facing education today according to Elam, Rose & Gallup's 24th Annual Gallup Phi Delta Kappa Poll of the Public's Attitudes toward the Public Schools (1992). This was the first time in twenty years that financial concerns had been part of this list. Since 1992, financial support for education has remained on this list as a major public concern. "Lack of discipline and inadequate financing are the local school problems most frequently mentioned by respondents" was reported in the 1997 29th annual poll conducted by the same agency (1997).

Inclusion of at-risk money into a state's education budget is becoming increasingly more common as a method of leveling the field between advantaged and less advantaged youngsters. The 1995-96 Education Commission of the States (ECS), Collection of "Clearinghouse Notes," shows twenty-three states have at-risk funding as a line budget expenditure in addition to their base allowance expenditures (1997). Research findings show that over 70 percent of reform funds were distributed from states to localities through unequalized, categorical funding (Verstegen, 1993).

The Fourteenth Amendment of the U.S. Constitution

The 20th century experienced the question of equitable distribution of school funds. The first case was initiated in 1912 and centered on the Equal Protection Clause of the Fourteenth Amendment. This amendment simply states an education is a constitutionally protected right rather than a state provided privilege. A number of lawsuits in various states challenged this interpretation with some success. It was argued that as a protected right any state that gave fewer dollars for children in poorer school districts may be accused of denying protection rights (Alexander & Alexander, 1985). However, in 1973, the Supreme Court of the United States brought all federally directed litigation to a halt. The court ruled that an education was not a fundamental constitutional right protected by the Fourteenth Amendment (Alexander & Alexander, 1985). This placed the equity issue in the lap of the individual states, who, now with the authority for education, found themselves charged with the responsibility for financing education.

Elementary and Secondary Education Act

Prompted by the civil rights movement citing educational equity as a federal responsibility and public officials crying for more federal funds to handle increasingly overcrowded classrooms and substandard school facilities, President Johnson proposed legislation called the Elementary and Secondary Education Act (ESEA). Passed in 1965, it was the first large-scale federal school aid program. The primary ESEA program was Chapter 1 of Title I. It was designed to provide grants to

local education agencies for supplementary educational and related services for at-risk students. There were two main principles behind the program: to provide services for low-achieving students and supplementing, not supplanting, classroom learning (Legters & Slavin, 1992). Congress has revisited and reformed the program many times since its inception. Initially there was some uncertainty as to how the money should be spent. As a result, many schools were found to have grossly misused this federal at-risk funding. By the mid 1970s specific regulations were amended to Title I¹ of ESEA to indicate how students would be evaluated and how parents should be involved. This proved to be ineffective. In 1981, Congress passed the Education Consolidation and Improvement Act (ECIA) which reduced the strength of the federal government and allowed states and local education agencies more control in monitoring the program (Farrar & Millsap, 1986).

Concerned that the local educational agencies were not paying enough attention to program quality, Congress again amended the program in 1988 with PL 100-297, which was known as Hawkins-Stafford Amendment. This amendment placed new emphasis on the quality and accountability of the program (LeTendre, 1991).

Title I is just one of many federal programs designed to assist at-risk children. Currently, the Federal Title I program allocates over 6 billion dollars to provide services for some 5 million students at risk of school failure. This translates into an additional \$1,200 spent on each student identified as at-risk.

¹ Chapter 1 of this act replaced the former Title I.

Even though the focus of Title I funding has always centered on meeting the needs of at-risk students, the interpretation of effective implementation has changed over the years. After the first ten years of the program, education officials and researchers began studying different programs to find which was most effective. In looking at some of the shortcomings of different programs, Robert Slavin (1989), educational researcher of Johns Hopkins, states, “the problems with the program are not the amount of funds it provides and not even how concentrated these funds are, but the programs that these funds buy” (p. 110). It is clear that responsible spending focuses on the quality of the programs purchased.

Head Start Program

The Head Start program, also initiated by President Johnson, is another federal program that supplies additional funding to prepare children for kindergarten and first grade by “inoculation” of children against their environment through brief intervention (Holden, 1990). Head Start now has a budget over 1.9 billion dollars.

Head Start’s goals have changed over the last two-and-a-half decades reflecting new research findings and modification in the strategies of the program. Initially designed to raise a disadvantaged child’s IQ, the goal is now designed to prepare these children to benefit from school by teaching them rudimentary social skills and social behavior. This current goal reflects the programs and services purchased by Head Start funding.

The National Assessment of Educational Progress has concluded that in America children from some groups are less likely to become literate than are children from others. Black children, Hispanic children, children living in disadvantaged urban communities and those whose parents have a low level of education are at particular risk for future educational failure.

Further, once these children begin their schooling at a disadvantage, they are unlikely to catch up (Applebee et al., 1987). Quality and equality are resolutely joined when addressing financial support. In most states, wealthy districts outspend poor districts by a factor of two to as much as five times, indicating the magnitude of school funding inequities (Harp, 1992).

Michigan History

The situation in Michigan is similar to that in other states (Michigan Department of Education, 1996). For the 1991-92 school year, just before the finance reform, per-pupil funding varied from a high of \$10,749 in Bloomfield Hills to a low of \$3,291 in Kingsley, a differing factor of almost 3.3. The state committed to address this disparity. Michigan's finance reform was not the result of a lawsuit, which was the case in many states, but rather from legislative action.

Between 1972 and 1992, voters were offered on eleven occasions the opportunity to change the means of financing schools by limiting property taxes and/or placing spending limits on districts. Except for P.A. 35 in 1979, known as the

Headlee Amendment,² each measure was defeated. Committed to eliminating property tax as the basis for state educational funding, the governor and three state legislators initiated new constitutional amendments, Proposal C³ in November 1992 and Proposal A⁴ in June of 1993. Both were defeated by large margins when placed before the voters. In July, 1993, Senate Bill 1⁵ (Public Act 145) was adopted by the legislature. The bill eliminated property taxes and forced a change in the state's response to school reform and school finance (National Research Council [NRC], 1995). Nine months later, in March 1994, legislators and the Michigan public passed a constitutional amendment called Proposal A that would change the tax structure and address funding equity for public schools (Kearney, 1994). Proposal A (not the same proposal as the June 93 Proposal A that was defeated) called for an increase in sales tax and some other taxes such as taxes on income, liquor, state lottery, and tobacco (Kearney, 1994; Addonizio, Kearney, & Prince, 1995).

² The Headlee Amendment limited tax increases on all governmental agencies and prohibited the State from mandating activities on local governments that were not reimbursed.

³ Proposal C provided an across-the-board cut in local property taxes and a cap on future increases in the assessed valuation of property.

⁴ Proposal A would roll back school property tax to 18 mills, provide for the district levying the full 18 mills of \$4,800 per pupil foundation grant including state retirement and categorical payments to districts, and provided a local option of an additional 9 mills equalized at 100 per pupil per mill.

⁵ Senate Bill 1 in 1993 was the first time At-Risk funding was included in the State School Aid Act. This is an annual allocation voted on each year by the Legislature.

The tax structure was shifted from a property tax base to a sales tax base and was designed to close the financial gap between school districts. These reform measures increased the state's responsibility for school funding from 30 percent to 80 percent while greatly decreasing the funding responsibility of the local district.

Michigan's finance reform was designed to provide resources for "equal education for equals." In addition to this, the state included a plan for "unequal treatment of unequals" directed for the support of at-risk students (Prince, 1997). This "unequal treatment for unequals" took the form of Section 31a funding for at-risk students and was designed to increase the horizontal equity of the finance reform. Since 1994, with the economy and employment at an all-time high, the financial variation between per-pupil funding, has been narrowed.

In her paper presented at the 10th Annual Meeting of University Council for Educational Administration in Louisville, KY, Catherine Sielke reports that one short term effect of the Michigan finance reform is a greater horizontal equity in terms of dollars per pupil going to the school districts (Sielke, 1996a).

However, with sales tax replacing property tax as the revenue source for education, the stability of the process and the ability of the state to fully fund schools in the future remains a question (Sielke, 1996b).

Michigan's 1994 finance reform included a 230 million-dollar compensatory education funding allowance for students at risk of school failure. This fund is called Section 31a Program for At-Risk Pupils. Local school districts with a combined state and local base revenue of less than or equal to \$6,500, as adjusted by index, per

membership pupil, are eligible for Section 31a at-risk funding. Public school academies that began operations after the prior year membership count day, October 31, 1996, are also eligible. At-risk revenues cannot be spent on programs and services funded by the annual foundation allowance the district receives each year from the state.

The criteria for students eligible for at-risk resources is: qualification for free breakfast, lunch, or milk as established by Federal guidelines. Each qualifying district is eligible for an additional 11.5 percent (a 1.115 per pupil weighting) of the per pupil district foundation allowance. With a 1997-98 foundation allowance of \$5,460, this translates into a \$627.90 resource for each qualifying student in the district. These additional monies can be spent on pupils who meet at least two of the following criteria: (a) victim of child abuse or neglect; (b) below grade level in English language and communication skills or mathematics; (c) pregnant teenager or teenage parent; (d) eligible for free or reduced-price lunch; (e) family history of school failure, incarceration or substance abuse.

This additional resource represents a large funding increase, particularly for low socioeconomic districts.

Purpose of the Study

The purpose of this study is to determine if there is a relationship between three related variables regarding Section 31a funding for at-risk students in the State of Michigan. More specifically, this study will determine if there is a relationship

between what Michigan school districts: (1) view as the most effective services and programs to purchase (implement) and the actual services and programs purchased (implemented), and (2) view as the most critical grade levels for spending (intervention) and the actual grade level spending of Section 31a funding. A third (3) variable will determine if there is a difference in spending Section 31a funding between districts of different socioeconomic levels.

The first and second variables will determine, by data collected in a questionnaire: Are the eligible districts in the state of Michigan actually spending their Section 31a funding according to what they consider to be critical areas of age-level spending for student success? The third variable will determine, with questionnaire collected data, if there are differences in the services and programs and grade level spending between wealthy, intermediate, and poor, districts.

Investigation and comparison of Section 31a at-risk spending will be accomplished by answering the following generally stated questions:

1. Is there a relationship between what districts view as important services and programs purchased with Section 31a funding and the actual services and programs purchased?
2. Is there a relationship between what districts view as critical grade-level intervention for at-risk students and their grade-level spending of Section 31a funding?
3. Does the economic status of a district result in differences in at-risk spending and in grade-level spending of Section 31a funding?

Investigators are gathering a body of evidence indicating that expenditures directly related to instructional services do have a significant impact on student outcomes (Kazal-Thresher, 1993). There is a fast growing body of research that indicates expenditures in pupil services, along with parental and community support have an equally significant impact on student success (Idea Book, 1994; Proges, 1984; U.S. Dept. of Ed., 1993; U.S. Bureau of Census, 1995). In the area of class size, the effects of intervention were strongest in the primary grades (Ferguson, 1991).

This investigation of the pattern of spending, age-level spending, and different socioeconomic district spending will provide useful information for the Michigan Department of Education and the Michigan school districts.

Rationale for the Study

The State of Michigan's finance reform of 1994 allocated 230 million dollars for the Section 31a program for at-risk pupils. The budget was increased to 250 million dollars for 1997. These funds may not be used to supplant other funds already being used for at-risk pupils. Costs that may be paid with at-risk funds are limited to the following: (a) salaries and benefits for instructional staff; (b) salaries and benefits to staff providing direct non-instructional services; (c) purchased services, supplies and materials for instructional and direct non-instructional services; (d) operation, maintenance, and pupil transportation costs for programs provided outside of the regular school day or year; (e) costs for school breakfast programs; and

(f) capital outlay is necessary for the provision of instructional and direct non-instructional services, such as computers and other instructional equipment.

In the spring of 1997, for the first time since the inception of the 1994 finance reform, the Department of Education Office of Compensatory Education Programs, required each district to submit a Section 31a Assurance of Compliance and Program Report known as EC 4731-B. This report requires accountability of the district's at-risk spending. It requires each district to record a brief description of each program or service provided, the grade span and number of at-risk pupils served, and the amount of at-risk funding allocated for each program or service purchased.

What is not known is what are considered the most strategic grade levels and the most critical areas for spending at-risk funding. It is also not known if these critical grade-level programs and services are in fact determining factors for grade-level programs and services being purchased by the districts of the state. Is there a relationship between what is viewed by districts as important and their actual practice?

Another aspect of this study will determine if there are differences in the programs and services purchased by districts of different socioeconomic levels. Do the poor districts spend their at-risk money on the same programs and services as the intermediate and wealthy districts? Are some school districts farther along with school improvement than other districts? Does this make a difference in their decision making and manner of spending at-risk funding? This study is designed to provide this information.

Limitations of the Research

Education's current situation is complicated by the lack of feedback, especially informed feedback, from education's critics and customers. While the public constantly complains about the quality of the schools, there is no agreement on exactly what it wants the schools to do. Ironically, surveys show that many of the same people who think there is a problem with American education rate their own local schools highly. Meanwhile, many of those who feel that schools are not doing an adequate job are highly suspicious of any new improvement program that would teach differently from what they remember (Ball & Goodman, 1997).

One limitation of the study was developing a method to operationalize the at-risk spending data collected from the literature research. The literature review indicates that the definition of "success" varies among schools. In many reviews, educational agencies and other experts cited examples of schools that had only recently begun to implement changes and show signs of improvement. In addition, what may be reported as effective in one academic setting is often less effective in another setting. For example, decreasing class size at the lower elementary level is cited as effective; however, decreasing class size in middle school or high school has little positive results. Usually a combination of school-based and extra-school resources was reported as necessary to implement academic growth, but no "magic mix" emerged to achieve success. The mix often varied from school to school largely because different districts were at different points of school improvement. Programs

and services purchased early in at-risk improvement are different from programs and services purchased by districts that are farther along in at-risk improvement. It was relatively easy to examine programs and services initiated for at-risk improvement; it was more difficult to determine whether the changes resulted in substantial improvement.

In 1986, Eric Hanushek studied spending and achievement relationships in 147 school districts in Texas. He concluded that there was not a strong, positive correlation between spending and achievement (Hanushek, 1986). In 1991, Keith Baker, using the same data but different statistical techniques, reevaluated the work done by Hanushek and concluded that the studies showed “the level of spending may be the most powerful of all the variables affecting student success” (Baker, 1991, p. 629).

Another limitation is the recent history of state-level at-risk spending. Historically, at-risk funding has been a variety of specific line items scattered throughout an unwieldy categorical listing. Often there was little, if any, evaluation required of the programs or services purchased by the districts receiving these funds. Beginning in 1994 with the School Finance Reform, the Michigan legislature eliminated many smaller categories and created the larger, broader category titled Section 31a. The state outlined criteria to determine each district’s allocation and requirements for spending the money, but the actual amount and type of programs purchased became a district, not a state, decision. Because this financial reform is a relatively recent change in Michigan, there is limited information available on

effective spending of state at-risk money. The literature review centers on research collected from other states and federal programs that have been in existence for longer periods of time.

Summary

There is growing concern, particularly evident from literature published in the mid-80s and early 90s, that public education is not preparing students to meet the current challenges of today and for the 21st century. If the goal of educational success for all children is to be reached, there is an urgent need for research and policy analysis when addressing the at-risk student. Research and documentation for discovering the keys to successful schools is only beginning. As the debate over financial equity and quality of education continues, it becomes critical to know if the at-risk funding is being spent on the most effective programs and services. It is also imperative that at-risk intervention occurs at the most affective time in the academic lives of pupils.

It is essential that research and review of research continue. Are some programs and services more appropriate for districts of greater or lesser economic status? The Michigan Department of Education and each district in the State of Michigan has a need to know where and how at-risk funding is being spent. This study will establish how the at-risk money is being used to address the needs of at-risk K-5, 6-8, and 9-12 students. This study will also determine if economic differences between districts result in a different pattern of spending.

CHAPTER II

REVIEW OF RELATED LITERATURE

The purpose of this study is to investigate if there is a relationship between what is regarded as critical spending and the actual spending of at-risk funding by Michigan school districts. Spending by grade level is also investigated to determine if there is a relationship between what school authorities regard as important ages for intervention and the actual expenditures for correlating grade levels. Finally, there is a comparison of the programs and services purchased by districts of different socioeconomic status.

This chapter provides a review of literature on funding programs and policies concerning children at risk of academic and social failure. A number of questions arise when considering responsible funding and spending for at-risk youngsters. First, what characterizes a child at risk? Second, what typifies a school that successfully addresses the needs of children at risk? Third, what does research show as effective ways to spend monies for at-risk children? This chapter will address these three questions with: (1) a brief history of what constitutes an at-risk child and the social and economic impact of at-risk children; (2) a look at the characteristics of outstanding schools that are realizing academic growth for at-risk children; (3) the specific expenditures that will increase the success of at-risk children.

At-risk Children and Their Social and Economic Impact

Although the meaning of *at risk* has never been precise and varies among educators and situations, Slavin (1989) defined *at risk* as students who, on the basis of several risk factors, are unlikely to graduate from high school. Most at-risk students are intellectually capable but, through no fault of their own, have been denied some of the advantages of non at-risk students. Children are educationally disadvantaged if they cannot take advantage of available educational opportunities or if the education resources available to them are inherently unequal. Conservative estimates suggest that as much as 30 percent of the school population is educationally disadvantaged (CED, 1987). During the 1990s there has been a significant increase in children in working-poor families. In 1989 the number of children in working-poor families was 4.3 million. In 1996 this number had increased to 5.7 million despite the economic boom of the 1990s (NRC, 1995).

These are children who come to school poorly prepared for classroom learning or not yet developmentally ready for formal education. These children may have parents who are indifferent to their child's educational needs. They may be children of teenagers who are ill equipped for parenting. They may be children with undiagnosed learning disabilities, emotional problems, health problems, or physical handicaps. They may have experienced racial or ethnic prejudice or come from non-English speaking homes. They could be adolescents who face a variety of other problems that put them at risk, including health problems, substance abuse, disabilities, socioeconomic status, attempted suicides, and experimentation with drugs

and sex (Manning and Baruth, 1995) or, they may be children who have access only to schools of substandard quality. Ongoing research of the Perry Preschool Program in Ypsilanti, Michigan, reports quality early childhood education can positively affect later school success through an increase in academic performance, a decrease in grade retention, and an increase in school attendance (Berrueta et al., 1984; Edelman, 1989; Lazar & Darlington, 1984). With the growing child poverty count comes growing numbers of children who are “at-risk” of school failure. Inadequate health services and an overall lack of resources in the early childhood years has contributed to an increased need for state funded “at-risk” early educational programs (Smith, 1992). Cost-benefit analysis studies have shown that the state can, over the long term, realize a return of \$4.75 for every dollar spent on high quality early childhood education programs, and an early at-risk funding of \$500 may save as much as \$3,000 when it prevents a child from repeating a grade (Barnett, 1985).

A recent study of eighty-four high schools in New York, using a new cost-analysis model, demonstrated that each additional \$100 spent resulted in students gaining as much as eighteen points on the combined scores for the mathematics and verbal sections of the Scholastic Aptitude Tests, after adjustments were made for student socioeconomic status and teaching experience of school staff (Harp, 1993).

Characteristics of Outstanding Schools

No two schools are alike and it is generally believed that a diversity of school design and offerings is healthy. However, research indicates that schools who serving

the disadvantaged must include a number of characteristics that are important for students in general and critical for at-risk students. The Committee for Economic Development's (1987) report titled, Investing in Our Children: Business and the Public Schools, has developed this list of characteristics important for serving at-risk children.

1. School should be a place where children want to learn. It must be a safe, physically inviting place that excludes negative influences of the outside environment.

2. English-language proficiency should be a major objective of the school program. Good communication skills are critical for later employment and these skills are most readily learned in the early years of childhood.

3. Character building should be emphasized through a positive invisible curriculum. Positive work habits, interpersonal relationships, and character traits should be a primary goal of all classroom work and extracurricular activities.

4. Teachers need a more intensive role while being held more accountable for student progress. Teachers of disadvantaged children provide role models and continuity for children who often do not have adults to emulate in their home environment.

5. Principals need to develop better leadership and management skills. They must provide open lines of communication both within the school and with parents, business people, and others in the community.

6. Schools should encourage greater parental involvement. Parental involvement is a critical key for improving achievement in at-risk children, particularly at the elementary and middle-school level.

7. Extracurricular activities should be an important part of the school program. Many at-risk children have single parents or two working parents. Others have no parental guidance and are themselves responsible for the care of younger children. With adult mentoring and supervision these children benefit from enrichment activities outside of the school setting.

8. Health and social services are needed to address problems that interfere with learning. At-risk children have a higher incidence of health problems and nutritional problems. School health officials are crucial members of the educational team often having more personal contact with students than the teachers or parents.

The list centered primarily on elementary and middle-school students. At-risk students also tend to get lost in the bigness of the average urban high school. Special programs, more individualized instruction, and work experience related to their academic tasks encourage these students to stay in school and develop valuable skills (CED, 1987).

When addressing a link between school quality and subsequent earnings of students, there is at best a small amount of research available with a variety of positive, mixed, and negative results. Perhaps the most prominent recent contribution is the study done by David Card and Alan Krueger, who found a positive association

between measures of school quality and students' later earnings (Card & Krueger, 1992).

Effective Expenditures

Research indicates some programs and services are more effective than others when spending at-risk money. Educators have reached substantial agreement that several types of educational services are important, and in some cases, vital, to the success of at risk children (Taylor & Piche, 1990).

The one variable that consistently emerged as most effective for increasing not only at-risk students, but all student achievement, was excellent teaching. Other variables include class size, health and welfare of the student, early intervention, parental involvement, home and community support, and academically outstanding schools. Interestingly, variables that had a lesser impact were facilities, curriculum, and administration. Historically, these are the areas where much of the at-risk money was spent. When reviewing Eric Hanushek's (1986) well-known and often criticized research of 147 school districts in Texas to determine if there is a relationship between spending and student achievement, most of the spending variables fell into these lesser impact areas.

Teaching Excellence as a Major Factor

Teacher quality is an important variable. Hiring teachers with strong literacy skills, hiring more teachers when the student-teacher ratio exceeds eighteen, and

retaining experienced teachers are all measures that produce higher test scores in exchange for more money (Kazal-Thresher, 1993).

In his book, Teachers for our Nation's Schools, John Goodlad says, "there is a natural connection between good teachers and good schools...Excellent teachers do not in themselves ensure excellent schools. But it is folly to assume that schools can be exemplary when their stewards are ill-prepared" (Goodlad, 1991, p. 3 & 4). He maintains that the education of teachers must be driven by a clear and careful conception of the educating we expect our schools to do; the conditions most conducive to this educating; and the kinds of expectations that teachers must be prepared to meet. Further, the renewal of schools, teachers, and the programs that educate teachers must proceed simultaneously. In an earlier book called A Place Called School, John Goodlad concluded, "The cards are stacked against deviation and innovation. One of the things we must do is to empower teachers. We will not have significantly better schools or higher achievement if we continue to treat teachers as factory workers" (Goodlad, 1994, p. 237).

Tennessee Value-Added Assessment System (TVAAS)

The state legislature in Tennessee mandated a measurement of student performance in grades 2 through 8. William Sanders, professor and director of the Tennessee Value-Added Assessment System, developed a statistical model that measured academic growth for individual students each year instead of the stanines or percentile scores usually used in norm-referenced test results. Results indicated that

the single largest factor affecting academic growth of student populations is difference in effectiveness of individual classroom teachers. The effects of class size and degree of homogeneity were also factors, but paled in comparison.

The research suggested that teacher effects are cumulative and additive. The latent effects of teachers—both positive and negative—could be measured for at least three years after students left the classroom. Lower-achieving students were the first to benefit as teacher effectiveness improved. More variability in teacher effectiveness occurred in the higher elementary grades than in the lower elementary grades. For math, the increase continued into high school (Pipho, 1998).

Texas Examination of Current Administrators and Teachers

Research on achievement was conducted in approximately 900 school districts in Texas. Teachers were administered a language skills test called the Texas Examinations of Current Administrators and Teachers (TECAT). Re-certification to teach required passing this test. This made available standardized test results collected simultaneously for an entire state's teacher population, and when combined with other data that the project assembled regarding home and community, provided an unique opportunity to assess the importance of teachers on student achievement and growth. Results of the research indicated that districts with the highest population of minority students (Black and Hispanic), were serviced by teachers who scored the lowest on the TECAT. Teachers who taught minority children tended to have weaker language skills, accounting for over 25 percent of the difference in the

reading and mathematics score differential between minority and white students. Performance improvement was supported by: (a) teachers with strong language skills; (b) class size of eighteen students or less; (c) teachers with more experience; and (d) teachers with master's degrees (Ferguson, 1990).

The research found that teachers matter, as did various features of home and community. Of the four categories found to have an impact, teacher language skill was the most important for both math and reading. Teachers' scores had a smaller effect on student scores after the seventh grade (Ferguson, 1990).

Prudent spending of Section 31a funding must address the effects of teaching excellence when determining how to best service a district. However, it would be incorrect to view these data as justification for across-the-board-pay increases to primary and secondary teachers. Rather, increased funding should be used as (a) inducements for existing teachers to upgrade their skills, (b) incentives for the best teachers to remain in the classroom, and (c) attracting stronger students of all races to select teaching as a career. Increased funding, used in these ways, will improve student achievement.

Parental and Community Involvement

Research indicates conditions in home and community environments outside of the school are important determinants of schooling outcomes. Parents' education is an important variable. Parents who have some college education are a more important variable than parents with four years of high school education. Four years

of high school is also a more important variable than that of parents who did not complete high school. The importance of parental education is understandable when explaining first-grade reading scores and later in the dropout rate and the percent of students taking qualifying tests such as SAT, ACT, and PSAT.

Nathan reports that research shows that effective schools work closely with parents. He goes on to say that one of the most important, quickest, and least expensive ways to increase student achievement is to develop programs of cooperation between teachers and parents (Nathan, 1987).

According to a Department of Education survey of more than 12,000 parents of children in third through twelfth grades, parental involvement in education drops off sharply after elementary school. The report goes on to say that students whose parents do stay involved fare better both academically and socially (Guttman, 1995). Parent involvement increases student achievement and self-esteem. This is true in large and in small communities, from preschool through high school, in very poor and in affluent communities, and in urban, rural, and suburban communities (Epstein, 1995, Goodman et al., 1995; Texas PTA, 1996). Steinberg, in his publication, Beyond the Classroom, emphasizes the importance of parents providing a connection between what goes on at home and what takes place at school (Steinberg et al., 1996). Parental involvement is a strong indicator of student success in school.

The Comer Process

The Comer Process is a management process that has dramatically improved the educational and social climate in two New Haven elementary schools. Both schools served student populations who were economically disadvantaged. As many as 70 percent of the student body came from homes receiving public assistance. Initially, both schools were ranked at the bottom of New Haven's thirty-three elementary schools and suffered from most of the problems endemic to inner-city schools. The Comer Process focused on changing the attitudes and working relationships of principals, teachers, counselors, health-care professionals, and, most significantly, parents. Active parent participation was reported as the key to the process. A social activities calendar was designed for the entire school year, with parents playing the primary role. Parent volunteers were encouraged to work in the classroom as teacher aides and librarians. Parent-run newsletters, evening social activities and parent-teacher organizations resulted in greatly increased parental involvement. Within a few years the schools had improved to fifth among the thirty-three schools in achievement and first in attendance. Even though the children were not the direct focus of this at-risk process, by changing the way administrators, teacher, other staff members, and parents interrelated, it substantially improved the academic achievement, attendance, and behavior of the students (CED, 1987).

At-risk populations in institutions of higher education are extensions of at-risk populations beginning in the primary and secondary grades. Colleges and universities are enrolling more at-risk students to ensure adequate levels of enrollment. However,

attrition of at-risk enrollees, due to lack of preparation or skills, is much greater than that of traditional students. Factors involve and are a higher probability of a low grade point average, a relatively greater probability of choosing a degree with skills and competencies not marketable in the labor market of the 21st century, or a greater chance of not completing the college degree. The opportunity costs associated with risk and attrition ultimately reduce the growth, development, and potential accomplishments of the broader society (Jones & Watson, 1990).

Class Size as an Effective Measure

Smaller class size, ratio of 18:1, is cited as an effective way to spend at-risk funding, especially for students from low-income families. According to a poll taken by Lake Sosin Snell Perry & Associates for *U.S. News & World Report*, smaller class size was the single strongest rationale for spending more money on schools (Toch & Streisand, 1997). Large classes also led to lower scores in grades one through seven. Ferguson's research indicated each additional student over eighteen causes the average score of the district to fall (Ferguson, 1990).

However, not all research supports lower class size as an effective way to spend money in education. In his 1988 article in Updating School Board Policies addressing class size, Vedder estimated the cost to lower class size by one student in every classroom across our country to be in excess of \$5 billion dollars. Vedder suggested that lowering class size would be one of the least effective ways of spending money (Vedder, 1988).

Student Support Services

Quality spending for at risk populations must include student support services as well as student instructional services. The Quality Education Act in the state of New Jersey divided thirty school districts into special-needs districts, moderately wealthy districts, and highly wealthy districts. The special-needs districts had greater poverty, less educated adults, more minority groups, and more students participating in free and reduced lunch programs. Data collected from school district reports and interviews with key district leaders and school-based personnel indicated large disparities between the needs of the special-needs districts and the other districts. A large amount of the additional state funding was spent to address academic needs, however, a high proportion of the programs in the special-needs districts was required to address the students' social needs (Natriello & Collins, 1993).

In a summarizing comment of the federal Goals 2000: Educate America Act⁶ and Improving America's Schools Act (IASA),⁷ it was stated that two decades of research and practice show that fundamental and lasting improvement is more effective when all the elements of the education system: local, state, and federal

⁶ Goals 2000 is a Federal Program that promotes school reform by supporting state and local education agencies in developing new and more authentic reforms to improve student achievement.

⁷ IASA is the Federal Government's largest investment in the nation's schools. IASA supports Title I, Title II, Title IV, Title VII, and Title XIII, all programs and policies that are likely to have an impact on school reform.

government, parents, teachers, and the community are linked together to focus efforts on improving education and academic achievement. (Idea Book, 1995).

Committee for Economic Development (CED)

CED, an independent research and educational organization of business executives and educators with a goal of increasing economic growth and providing greater and more equal opportunity for academic achievement, found that improving the prospects for at-risk children is not an expense but an excellent investment, one that can be postponed only at much greater cost to society. Economically, it is in the best interest of our nation to focus on the following educational goals: (a) prevention through early intervention, particularly with preschool children and teenagers at risk; (b) restructuring the foundations of education; and (c) retention and reentry programs for dropouts and students at risk, with particular focus on comprehensive educational, employment, health, and social services for students still in school and for dropouts (CED, 1987). Raising educational standards does not automatically result in increased academic achievement. At-risk children need special help to achieve these standards because many lack the basic skills to participate in the social, political, and economic life of our society. Educational funding must target more than reforming education systems.

Funding must address the needs of at-risk infants and toddlers and their families or such children will continue to be doomed to fail. Programs and policies that are designed to help disadvantaged children improve their educational prospects

must be tailored to meet the needs of the whole child within the context of school, family, and community (Reyes, 1995).

In his book, Educational Renewal, Better Teachers, Better Schools, John Goodlad makes the point that good societies have good schools. A good predictor of student success in school and high scores on academic measures is the level of schooling attained by the student's parents (Goodlad, 1994).

Early Intervention

Metropolitan Affairs Corporation (MAC), a private, nonprofit organization supported by business, industry, labor, and local government conducts several areas of research, one of which supplies options for private and public impact on the areas of K-12 education. In a presentation to the Southeast Michigan Council of Governments, Joe Nathan commented that spending money to improve education should be spent on high quality early childhood education programs (Nathan, 1987).

Early intervention is critical not only to improve student success, it is a cost saving factor as well. William Clune, a Voss-Bascom Professor of Law at the University of Wisconsin, with areas of specialization in education law, policy, and finance, and Allan Odden, a professor of educational administration and director of the Finance Center of the Consortium for Policy Research in Education (CPRE) in the same university, report that it is difficult to determine the cost of effective programs for the disadvantaged. Their recommendation for each disadvantaged child is \$2,000 per pupil per year to provide the extra services each at risk child needs to achieve to

high standards (Odden & Clune, 1995). This suggested amount is significantly larger than the \$627.90 allocated per pupil by the State of Michigan for at-risk students. However, Section 31a funding is providing resources for districts in the state to address funding equality for all students.

Other significant predictors for academic success for all grades through the ninth grade is female headship in the home, the percent of students from homes where English is a second language, and the percent of migrant farm worker families (Ferguson, 1990).

As indicated earlier, research confirms that programs and policies intended to improve the academic success of at-risk children must be designed to meet the needs of the whole child. This incorporates all the aspects of home, community, and school.

National Health/Education Consortium

Physical and emotional well-being have emerged as critical factors affecting the academic success of children. The National Health/Education Consortium,⁸ is a group of recognized expert researchers and practitioners with backgrounds in health and education. This committee was formed in response to the federal government's growing concern over America's children. Childhood poverty is rising; child health status is declining; reports of child abuse and neglect are up; too many youth drop out of school, commit suicide, or have babies; drugs, alcohol, and violence are taking a

⁸ The National Health/Education Consortium is a consolidation of the federal National Commission to prevent infant mortality and the Institute for Educational Leadership.

terrible toll. The Consortium reported six variables that must be considered when viewing America's children:

1. Health affects education. Any health problem—hunger, poor vision or hearing, increased blood lead levels, dental problems, and child abuse—interferes with learning. Research supports this. Two-thirds of the teachers in a 1988 national survey reported poor health among children as a contributing factor in learning problems. Stephen Porges, a University of Maryland psychologist, reported that what was previously assumed as a behavioral problem may be biological and may be very treatable with early intervention (Porges, 1984).

2. Education affects health. Education can promote good health. If pregnant women and girls know the prenatal effects of smoking, drinking, or use of drugs, if children are exposed to and learn the value of good nutrition and exercise, and if parents get their children immunized, the probability of healthy children's academic performance is increased. Tragically, ignorance can put a healthy child at risk. San Francisco's superintendent of schools, Ramon Cortines, gave evidence that this is not just "folk wisdom," but that education regarding attitude and health behavior is effective in slowing the rate of unhealthy practices (Crossing the Boundaries between Health and Education, 1990).

3. Technological advances are not enough. Medical technology can help children survive, and computers can help children learn, but neither can compensate for growing up homeless or poor or in overcrowded schools. Technology cannot

determine why a sickly child thrives in a supportive environment, and a healthy child sickens in an unsupportive one.

4. Families have a critical role. The Consortium determined the most successful interventions for helping at-risk children involved their families. Evidence from NOVA University's Family and School Center, the Hispanic Policy Development Project, The University of Minnesota Project, along with Head Start with its twenty-five years, confirms that involving families in efforts to help at-risk children makes a significant difference in their educational development (NRC, 1995).

5. At-risk does not mean doomed. Research reveals that early intervention makes a difference, but help must be given as soon as possible. This means educators need to bring in both physical and emotional health professionals as soon as learning disabilities are suspected. Educational offerings to the community for health needs must be available even before children are of school age. This affirms the need for Section 31a funding for pupil social service expenditures as well as instructional service expenditures.

6. System changes are needed. Public spending policy does not yet fully recognize this fact. The way health and education programs are funded must be changed. Modifications must be made in how our professionals are trained to address the needs of all our children and particularly our at-risk children (Crossing the Boundaries Between Health and Education, 1990).

After-School Activity and Child Care

After-school activity and child care is another important variable that must be considered when spending at-risk monies. Sixty percent of our nation's work force are women and many of these women are single-parent mothers. Before and after school programs are critical to provide safe and structured activities for children whose parent(s) are at work.

LA's BEST (Better Educated Students for Tomorrow) Program

The U.S. Department of Education reports that in 1993 only one-third of schools in low-income, at risk, neighborhoods offered before or after-school enrichment programs. One exemplary program cited in the report is LA's BEST (Better Educated Students for Tomorrow). This Los Angeles program serves approximately five thousand children per day in grades K-6 at twenty-four municipal elementary schools. Evaluation of the program confirms increased attendance and higher rates of school completion by the students who participate in the program (U.S. Dept of Ed., 1993).

New York City's Beacon Program

The Beacon Program of the New York City schools provides after-school and summer activities for students. The forty-two centers scattered about the city are open in the summer, before and after school, and on weekends and holidays. The

Beacon Program is cited frequently as an exemplary school-based approach to youth development, family support, and neighborhood revitalization (U.S. Dept. of Ed., 1993).

Establishing such programs as LA's BEST and New York's Beacon Program should be a high priority of a local school district's disbursement of at-risk money. Our nation has determined to reduce the total number of welfare recipients and increase the number of low-income families in the work force. But hand-in-hand with this approach is the simultaneous need to insure that single and low-income working parents have realistic access to safe, stimulating, and supportive alternatives for their children. It is beyond doubt that our society will benefit when all children, at-risk and non at-risk, are provided with high-quality care.

Students Who Drop Out of School

Graduating from high school is critical for obtaining post-secondary education or getting a good job. One recent survey on dropouts indicates that about one-quarter of the kids who drop out are very bright but bored. Part of the reason is too many restrictions on the schools which haven't allowed the kind of academic freedom needed to create programs and services necessary to stimulate these students (Nathan, 1987).

The U.S. Bureau of Census reported that 5.1 percent of high school dropouts become poor, compared to 1.8 percent of those with at least a high school diploma (U.S. Bureau of Census, 1995). This makes the likelihood of slipping into poverty

about three times higher for high-school dropouts than for students who finish high school. A 1996 report from the Bureau of Census indicated that by the time people reach the working age of 24-54, the median personal income of those who dropped out of high school was \$10,400. The median personal income of those with a high school diploma was \$18,235, almost twice that of those who dropped out of school. The median personal income of those with a college degree was \$35,125 more than three times that of high school dropouts.

Any factor, or combination of factors, that influences children at-risk results in them dropping out of school far more frequently than their counterparts. As many as one million at-risk students drop out each year. The cumulative personal income lost nationally as a result of drop-out is staggering. In 1989, lost income from dropouts from the high school class of 1981, making these students approximately 27 years old, is estimated to more than \$238 billion, with lost tax revenues of \$68 billion (McCormick, 1989). This would suggest that the cost of programs focused on keeping at-risk students in school, is well worth the investment.

Spending for programs designed to keep potential dropouts on an academic road to graduation will greatly enhance the opportunity for success of these at-risk students. As a result, the student, the community, and the country will be mutually benefited.

Summary

The debate over quality and equity in education has a long history. A relationship between quality education and student success seems to be supported by literature. This knowledge then begs the equity issue. If quality is important for success, then equal opportunity for all students to have a quality education requires equal distribution of resources available to schools as well as addressing the “unequal” issue of students at risk.

Historically, district finance has been a local issue. But the Michigan Finance Reform in 1994 has involved the state in a much greater role. In an attempt to provide a quality education for all students, the state established the Section 31a category of spending for at-risk pupils. With this agreement of purpose between quality and equity, it is important to identify quality programs and services and grade level intervention to determine whether or not if these programs and services are being purchased by the state with equity funding.

Chapter III will describe the methodology by which this study will be conducted. Chapter IV will report the findings of the study and Chapter V will interpret the findings and look for conclusions to the study.

CHAPTER III

METHODOLOGY

The purpose of this study was to investigate if there is a relationship between what school districts view as effective services and programs for spending Section 31a funding and the actual services and programs purchased with Section 31a funding. This relationship was further expanded to determine if the economic status of the district has an effect on what is viewed as the most effective services and programs for spending Section 31a funding and the actual services and programs purchased. In addition to the spending relationship between what is viewed as important and what is actually practiced, a relationship between what districts view as the most important grade levels for spending of Section 31a funding and the actual grade levels for which programs and services purchased with Section 31a funding was investigated.

In the ongoing debate surrounding school finance and finance reform in the state of Michigan the correlation between these variables is useful. Not only in Michigan, but also across the nation, there is debate over more funding and equity of funding. Michigan's legislature initiated a bold financial reform in 1994, which included a process of equalizing funding for all students. To further equalize student funding, the State incorporated a compensatory plan for those students at risk of failing for reasons other than of district wealth. Michigan Department of Education's

Section 31a Program of At-Risk Pupils is designed to equalize this academic disparity.

This study will investigate three related variables of at-risk spending in the State of Michigan. Generally, it asks if the grade-level services and programs purchased with Section 31a funding correlate with what this research indicates are the important areas for increasing academic achievement of at risk pupils.

This chapter includes a description of the research project. The research questions are restated along with a description of the sample used in the study. An explanation is given for each group of data and the process of securing the data. Possible limitations of the results are discussed. The method used to analyze the data is outlined with a statement of the hypothesis.

This study will involve two statistical techniques to measure the data: Spearman Rho correlation coefficient and two-way analysis of variance (ANOVA). The correlation data for this study consisted of ranks. Therefore Spearman Rho was the technique used to determine relationship between variables. This statistical technique is able to measure the relationship between variables and also give an index of the proportion of individual differences in one variable that can be associated with the individual differences of another variable (Hinkle et al., 1994). The correlation coefficient is an inclusive number between -1.0 and +1.0 that indicates the degree of relationship between variables. Correlation indicates relationship or association between two variables, but it does not necessarily imply causation between correlated variables (Hinkle et al., 1994).

The data for the third question incorporates two independent variables and a dependent variable made up of six groups or categories. The statistical technique for testing if the means are equal for more than one level of two independent variables is the two-way analysis of variance (ANOVA). This technique allows an investigation of the effects of one independent variable on the dependent variable, in conjunction with one or more additional independent variables. This technique also makes it possible to study the effects of an interaction effect between the two independent variables (Hinkle et al., 1994).

Research Questions

To determine the degree of correlation between the services and programs indicated as effective by the surveyed districts and the actual services and programs purchased to increase the success of at-risk students, was the broad research question stated in Chapter I. This broad question is restated below into three more specific questions.

1. Is there a relationship between what the districts indicate as important services and programs to purchase and the actual services and programs purchased with Section 31a funding for increasing the success of at-risk pupils?
2. Is there a relationship between what the districts indicate are the most critical grade levels for increasing success of at-risk pupils and the actual grade levels of spending Section 31a funding?

3. Is there a difference in the grade-level services and programs purchased with Section 3 1a funding between districts of different economic status?

Hypotheses

As a result of the review of the literature in Chapter II, the following operational (conceptual) hypotheses are submitted:

1. There will be a relationship between what districts indicate as important services and programs to purchase and the actual services and programs purchased with Section 3 1a funding for increasing the success of at risk pupils.

2. There will be a relationship between what districts indicate are the most critical grade levels for increasing success of at-risk pupils and the actual grade levels of spending Section 3 1a funding.

3. There will be a difference in both services and programs purchased by the districts with Section 3 1a funding which reflects the differing economic status of the districts.

To test these hypotheses, the operational hypotheses are stated as null hypotheses for testing:

1. The services and programs indicated by the districts as important for increasing success of at-risk students will show no relationship to the actual services and programs purchased by the districts with Section 3 1a funding.

2. The critical grade level for increasing success of at-risk pupils indicated by the districts will show no relationship to the actual grade level of spending by districts of Section 31a funding.

3. There will be no difference in the services and programs purchased with Section 31a funding between districts of different economic status.

Sample Data Collection

The population for this study was a sample of 105 school districts in the State of Michigan. These school districts were broken down into three economic groups representing wealthy, intermediate, and poor districts. To determine the economic status of the school districts compared in the study, the per-pupil spending from combined state and local revenue for each district in the state of Michigan was computed. Data for this information was collected from the Michigan Department of Education Bulletin 1014, available on request from the Financial Management Services Office of the Michigan Department of Education in Lansing, Michigan (Michigan Dept. of Ed., 1996) (See Appendix A). Bulletin 1014 annually reports per-pupil expenditures for thirteen different categories. Eligibility for Section 31a funding is determined by the total of the local revenue and state revenue categories.

The local revenue source and the state revenue source from the general fund revenue were totaled and ranked for all the districts in the State of Michigan. Districts with funding less than or equal to \$6,500 per-pupil as adjusted by index are eligible recipients of Section 31a funding. This stipulation reduced the eligible

number of districts from 602 to 500. All of the eligible districts in Michigan were ranked and divided into three equal groups. The first group of districts had the highest per-pupil funding and represented the wealthy districts, the second group of districts represented the intermediate districts, and the third group of districts, with the lowest per-pupil funding, represented the poor districts. The sample for the questionnaire was obtained by selecting every fifth district in each of the three groups. When selecting the survey districts, the district was cross referenced with the Michigan Department of Education State Aid Section list in Bulletin 1014, to insure the district had indeed filed the EC 4731-B report. This report confirmed that the district was receiving Section 31a at-risk funding from the state. If the district had not filed a EC 4731-B report, the next district on the list was selected. This sampling process produced thirty-five districts for each economic category. District addresses for the purpose of mailing surveys were secured from the Michigan Education Directory (Appendix B).

Data Collection

The most important services and program data for the study were collected from a questionnaire of the sample districts in the State of Michigan (See Appendix C). The questionnaire requested each district to rank order Section 31a expenditures they determined were critical for increasing success of at-risk pupils. The questionnaire that specified the data submitted in response to the questionnaire be completed by someone in charge of curriculum and/or fund allocation. For many of

the smaller districts, the Michigan Education Directory did not record the curriculum director. In this case, the questionnaire was addressed to the superintendent of schools with a request to forward the questionnaire to the appropriate individual in the district. The returned questionnaires indicated the name and position of the individual completing the questionnaire.

The categories surveyed fell under the general headings of instructional services and pupil support services. Each general category was divided into three sub-categories. This produced six categories, which the questionnaire requested the districts to rank order by the importance their district placed on each category. To help define these six categories, a list was included of various services and programs representative of category expenditures.

Specific district spending data to establish the type and amount of the service or program purchased with Section 31a funding were collected from Form EC 4731-B Assurance of Compliance and Program Report (Appendix D). Each district receiving Section 31a funding is required to submit this form to the Michigan Department of Education. Form EC 4731-B requires each district to annually report the programs or services purchased with Section 31a money, the grade-level that benefited from the service, the number of at-risk students served by the expenditure, and the dollar amount of each expenditure. The form was designed to separately report both the instructional services and pupil support services purchased by the district. A statewide summary of services provided by 1996-97 Section 31a funds is included for information. (Appendix E) The specific district spending data was

individually collected, for each surveyed district. A sample of the spreadsheet with compiled data from these forms is included as (Appendix F).

A second set of data was collected from the survey by requesting the districts to rank order which grade levels, K-5, 6-8, 9-12, their district regarded as the most important grade level for intervention of at-risk students when spending Section 31a funding.

The EC Form 4731-B data, the Bulletin 1014 data, and the Michigan Education Directory were obtained by writing the appropriate department and requesting the information as provided by the Freedom of Information Act (Appendix A, B, & D). The information from Michigan Department of Education was available on a computer diskette formatted for the Fox Pro DBF. For the purpose of this study the data was translated to the Macintosh Operating System using Claris Works translators. Because of the collection process, the data is available approximately one year after the conclusion of the school year for which it reports. For the purpose of analysis, all data are converted into percentage data.

Western Michigan University requires all research to be approved by the Human Subjects Institutional Review Board (HSIRB). This board reviews: (a) the design of the research; (b) the balance of harm and benefit; (c) the process of informed consent; and (d) the selection of subjects (Richard Wright, Chair HSIRB Board 1998). Approval was granted by Western Michigan University Human Subjects Institutional Review Board on August 12, 1998 (Appendix G).

Limitations

Because funding is a high priority for a school district and Section 31a funding is in addition to the district foundation allowance, it is viewed as significant revenue by eligible districts. Many districts plan and support on-going school improvement programs with allocations from this fund despite the requirement that it must be legislatively approved each fiscal year. Consequently, most districts readily cooperate with the State Department of Education and annually submit Form 4731 Assurance of Compliance and Program Report. However, the use of Form 4731-B Assurance of Compliance and Program Report raises several concerns.

At the time the data for this study was collected, the report was requested but not required by the Michigan Department of Education, and some districts failed to submit a report. The different degree of importance placed on submitting Form EC 4731-B by some districts may be a possible contaminating factor in data collection.

Another concern with using Form 4731-B for data collection is the method of reporting by the districts. Whereas most districts submitted their reports carefully broken down into the individual categories that the form requested, some districts reported a portion of their expenditures as site-based management without listing any specific services or programs. These expenditures are not available to include in an appropriate category for measurement. This expenditure consisted of \$37,800,037 of the total budget of \$250,098,926 which translates into approximately 15 percent of the expenditures not included in the study.

The percent of at-risk spending on the sub-categories of instructional services and pupil-support services will be established by class level and compared to effective programs reported by research.

Summary

To determine if there is a relationship between what school districts view as effective services and programs for spending Section 31a funding and the actual services and programs purchased with Section 31a funding, a correlation study was conducted. A second correlation study was conducted to determine the relationship between what districts view as the most important grade levels for spending Section 31a funding and the actual grade levels for which programs and services are purchased.

The study was further expanded to determine if the economic status of the district has an effect on programs and services purchased with Section 31a funding. A two-way ANOVA was used to measure the means of category spending between districts of different economic status.

The research questions and hypotheses will be analyzed in Chapter IV. The results of the study will be reported along with a summary of the research design, the collection of data, and the analysis of data. Chapter V will summarize the purpose of the study, the review of the literature along with limitations of the study and includes recommendations for future research.

CHAPTER IV

RESULTS

The purpose of this study was to investigate if a relationship existed between what Michigan school districts say or view as effective at-risk services and programs to purchase with Section 31a funding, and the actual programs and services purchased. A second part of this study investigated if there was a relationship between what school districts say or view as the most critical grade level for at-risk intervention, and the actual grade-level spending of the districts.

Data collected from a questionnaire mailed to a sample population of Michigan school districts was correlated with data provided by 1996-1997 ED 4731-B reports submitted by the districts to the State Education Department. ED 4731-B reports each district's expenditures of Section 31a funding for the previous year. The 1996-1997 data was measured because it is approximately one year after the conclusion of the school year that the data is available.

The study was expanded to determine if there is a difference in grade-level spending of Section 31a funding and the economic status of the sampled districts. The same data sources were used to compile the spending percentages of the services and programs purchased by the sampled districts.

The sampled district's expenditures were grouped into six categories representing instructional services and pupil-support services. Per-pupil funding of

the district was used to determine the economic categories of wealthy, intermediate, or poor. A two-way ANOVA was used to analyze the spending patterns and any possible interactions of the three economic categories and the six spending categories.

Chapter IV reports the results of two correlation studies and six two-way ANOVA studies. The research design in Chapter III will be revisited and summarized as well as the sampled population and the data collection process. All of the data used in the study were collected from the mailed questionnaire and the district expenditures reported to the Michigan Department of Education in Lansing, Michigan. Letters requesting the information under the Freedom of Information Act are included as Appendix A and B. The data for each research question, the statistical techniques used, and the results of each hypothesis was examined and analyzed.

Summary of Research Design

The correlation research method was the statistical technique used in the first two questions of this study. Correlation attempts to discover or clarify a relationship between variables. The variables being measured in this part of the study are the programs and services that the sampled districts indicated on the questionnaire as being the most important for increasing the success of at-risk students and the actual expenditures that were reported on Form EC 3741-B. A second set of variables attempted to measure the relationship between the grade levels viewed as most critical for at-risk intervention and the grade levels where the money was actually spent as reported on Form EC 3741-B.

The data the sample districts indicated on the questionnaire to be important services and programs as well as the most critical grade level for intervention was collected. The sampled districts were asked to rank six categories of instructional services and student support services and three categories of grade levels. This data was correlated with data of the actual services and programs purchased and the grade-level expenditures collected from Form EC 3741-B form submitted to the state. The correlation coefficients were analyzed to establish the degree of correlation that existed between these variables.

Analysis of variance was the statistical technique used for analyzing the third question of this study. Two-way analysis of variance (ANOVA) is a classification in which two independent variables are measured in a single analysis. This technique also allows for the measurement of a possible interaction between the independent variables. Using this design, it is possible to determine the effects of Section 31a spending by the various economic levels of the districts, the grade level spending by the districts, and the interaction between economic levels and grade-level spending.

Analysis of Data

The sampled districts were randomly selected from a list of all the districts receiving Section 31a funding for the 1996-1997 school year. The economic level was determined by per-pupil spending from combined state and local revenue as reported in the Michigan Department of Education Bulletin 1014. Each of the three economic

level groups (wealthy, intermediate, poor) consisted of thirty-five districts randomly selected from the master list. This resulted in a district survey list of 105 districts.

The expenditure data were individually collected from the annual EC 4731-B form submitted by each district to the State Department (Appendix D). The individual district data were collected and categorized into six areas of expenditures. Table 1 shows the six categories and the total Section 31a expenditures for each category.

Table 1
Total Category Spending of Section 31a Funding for
At-Risk Students by School Districts in Michigan

Category of Spending	Total Dollars By Category	Percent Of Total
Paraprofessional Assistance	35,980,861	14
Professional Instructors/Assistants	36,396,238	15
Alternative Education Programs	79,161,250	32
Student Academic Assistance	16,048,884	6
Student Physical Assistance	8,890,021	4
Student Social Assistance	35,521,619	14

*15% was reported as Site-Based Management, which could not be accurately applied to the categories.

The questionnaire mailed to the districts requested the district to rank the six spending categories in order of importance for increasing the success of at-risk

students. The actual service and program spending of the surveyed districts was collected from Form EC 3741-B and analyzed to determine the rank of spending in the six categories. Table 2 shows the results of the survey ranking and the spending ranking.

Table 2
Results of the Survey Ranking and Spending for the
Six Categories of Spending of Section 31a Funding

Category of Spending	Survey Ranking	Spending Ranking
Paraprofessional Assistance	3	1
Professional Instructors/Assistants	1	2
Alternative Education Programs	4	4
Student Academic Assistance	2	5
Student Physical Assistance	6	6
Student Social Assistance	5	3

In addition to asking districts to rank-order the most important areas for spending at-risk funding, the questionnaire requested the indication of which grade level they considered the most critical for intervention. The grade levels were grouped K-5, 6-8, and 9-12. Data for the grade levels that the districts in fact spent their funding were collected from Form EC 3741-B. Table 3 shows the results of the survey ranking and the spending ranking.

Table 3
Results of the Survey Ranking and Spending
Ranking for the Grade Level Categories

Grade Level	Survey Ranking	Spending Ranking
K-5	1	*1
6-8	2	2
9-12	3	3

*50.8% of the Section 31a funding was spent on K-5 grade levels; 6-8 and 9-12 were split approximately equal at 25.6 and 23.6 respectively.

Research Question

The original research questions posed in Chapter I were:

1. Is there a relationship between what districts view as important services and programs purchased with Section 31a funding and the actual services and programs purchased?
2. Is there a relationship between what districts view as critical grade-level intervention for at-risk students and their grade-level spending of Section 31a funding?
3. Does the economic status of a district result in different at-risk spending and in grade-level spending of Section 31a funding?

To answer the questions asked in Chapter I, a conceptual hypothesis was posed in Chapter III.

1. There will be a relationship between what districts indicate as important services and programs to purchase and the actual services and programs purchased with Section 31a funding for increasing the success of at risk pupils.

2. There will be a relationship between what districts indicate are the most critical grade levels for increasing success of at-risk pupils and the actual grade levels of spending Section 31a funding.

3. There will be a difference in both services and programs purchased by the district with Section 31a funding which reflects the differing economic status of the districts.

Operational hypotheses were offered in null form for testing. Each of the specific research questions and associated null hypothesis will be addressed separately.

Correlation Coefficient

To determine the extent to which the two sets of data are related in question one and question two, a correlation coefficient was used. A correlation coefficient can take on values between -1.0 and +1.0, inclusive. The sign indicates the direction of the relationship with plus indicating a positive relationship and a minus indication a negative relationship (Hinkle et al., 1994). Correlation indicates relationship or association between two variables: it does not establish causality. It is possible that a third variable or a combination of variables may be causing the two correlated variables to relate in the manner they do. Therefore, a high value for the correlation

coefficient does not imply causation between correlated variables. Table 4 is the scale suggested for interpretation of correlation coefficients by Hinkle et al., (1994).

Table 4
Rule of Thumb for Interpreting the
Size of a Correlation Coefficient

Size of Correlation	<u>Interpretation</u>
0.90 to 1.00 (-0.90 to -1.00)	Very high positive (negative) correlation
0.70 to 0.90 (-0.70 to -0.90)	High positive (negative) correlation
0.50 to 0.70 (-0.50 to -0.70)	Moderate positive (negative) correlation
0.30 to 0.50 (-0.30 to -0.50)	Low positive (negative) correlation
0.00 to 0.30 (0.00 to -0.30)	Little if any correlation

The data collected for the first two questions in the research study consisted of ranked data. The surveyed districts were asked to rank-order the programs and services and the grade levels for expenditure. Because rankings are ordinal data, the Spearman Rho correlation coefficient was used to determine relationship between variables. Correlation conditions require that the two variables being correlated be paired observations of the same set of materials. This condition was met by correlating what districts “say” and what districts “do” with Section 31a money and grade-level intervention.

Research Question 1

Is there a relationship between what districts view as important services and programs purchased with Section 31a funding and the actual services and programs purchased?

Hypothesis 1. The services and programs indicated by the districts as important for increasing success of at-risk students will show no relationship to the actual services and programs purchased by the districts with Section 31a funding.

Table 5 shows the correlation coefficient, which describes the degree of relationship between which programs and services districts ranked on the questionnaire in order of importance for spending Section 31a funding and the actual programs and services purchased by the districts.

Table 5

Correlation Coefficient for What Districts “Say” Are
Important Programs and Services to Purchase and What
Districts “Do” Purchase With Section 31a Funding

Correlation Coefficient	<u>Number</u>	<u>Sig</u>
0.4857	6	0.329

As the values for the correlation coefficient indicates, there is a low positive correlation between the variables. In response to this value, the null hypothesis is accepted supporting the assertion that there is no relationship between the services

and programs indicated by the districts as important for increasing success of at-risk students and the actual services and programs purchased by the districts with Section 31a funding. While a correlation coefficient of 0.4857 is very near the next category which is a moderate positive correlation, it does appear in the range which would indicate a low correlation therefore the null hypothesis is accepted.

Research Question 2

Is there a relationship between what districts view as critical grade-level intervention for at-risk students and their grade-level spending of Section 31a funding.

Hypothesis 2. The critical grade level for increasing success of at-risk pupils indicated by the districts will show no relationship to the actual grade levels of spending by districts of Section 31a funding.

Table 6 shows the correlation coefficient, which describes the degree of relationship between what districts indicated were critical grade levels for intervention and the actual grade-level spending of Section 31a funding.

As the values for the correlation coefficient indicates, there is a very high positive correlation between the variables. In response to this value, the null hypothesis is not accepted supporting the assertion that there is a relationship between what the surveyed districts viewed as critical grade level for intervention to increase the success of at-risk students and the grade levels on which they were spending Section 31a money.

Table 6

Correlation Coefficient for Critical Grade-Level
Intervention and the Actual Grade-Level
Spending of Section 3 1a Funding

Correlation Coefficient	<u>Number</u>	<u>Sig</u>
1.00	3	0.000

Because there are only three categories in this study, the precision of this study may be questioned. However, because K-5 is viewed as the elementary grades, 6-8 as the middle school grades, and 9-12 as high school, only three categories exist. Therefore, it appears that the districts are in fact spending Section 3 1a money according to what they view as the most critical grade levels for intervention of at-risk students.

Analysis of Variance (ANOVA)

The third question of this study contains two independent variables: the economic level of the district and the grade level of spending Section 3 1a funding. The dependent variable is each of the six categories of Section 3 1a spending collected from Form EC 3741-B.

The dependent variable for this study is calculated as the percent of Section 3 1a money each district spent at each grade level. The percentage of grade-level spending was calculated for each of the surveyed districts. These percentages were

entered into a SPSS program along with the three district categories and the three grade level categories. Each spending category functions as a dependent variable. There are six spending categories; therefore, there are six two-way ANOVA's.

Two-way analysis of variance was the procedure used for testing the null hypothesis that the means are equal for more than one level of two independent variables. This technique allows the investigation of the effects of one independent variable on the dependent variable, in conjunction with one or more additional independent variables. There are several advantages to using this technique.

One advantage is efficiency. In brief, with simultaneous analysis of the two independent variables, two separate research studies are carried out at the same time. It is possible to study the effects of an interaction effect between the two independent variables. In addition to investigating how different levels of the two independent variables affect the dependent variable, it can also be tested whether or not levels of one independent variable affects the dependent variable in the same way across the levels of the second independent variable. If the effect is not the same, there is an interaction between the two independent variables and it is possible to study another hypothesis. The study of interaction among the independent variables may be the more important objective of the investigation (Hinkle et al., 1994).

A second advantage is control over a second variable by including it in the design as an independent variable (Hinkle et al., 1994). Using this design, the effects of the categories of Section 31a spending and the economic level of the district can be determined, as well as the effects of the categories of Section 31a spending and grade

level, and a possible interaction between grade-level spending and the economic level of the district.

Research Question 3

There will be a difference in both services and programs purchased by the districts with Section 31a funding which reflects the differing economic status of the districts.

There are six spending categories to be addressed in this question, therefore, six groups of operational hypotheses will be offered in null form for testing. Three null hypotheses are tested with the two-way ANOVA statistical technique. The first two null hypotheses are concerned with the effects of the two independent variables considered individually. The third null hypothesis is concerned with the effect of the interaction.

Hypothesis 1

H₀1: The mean for the paraprofessional services and programs purchased with Section 31a funding will be equal for the three economic levels of districts.

H₀2: The mean for the paraprofessional services and programs purchased with Section 31a funding will be equal for the three grade levels.

H₀3: There is no interaction between grade level and economic level of the district for the paraprofessional services and programs purchased with Section 31a funding.

Table 7 shows the results of the two-way ANOVA for hypothesis one.

Table 7

Statistical Measures of District Paraprofessional
Purchases Between Grade Level and Economic Level

Source of Variation	Means	F Value	Sig of F (p)
Economic Status		2.75	0.07
Wealthy	11.8		
Intermediate	9.8		
Poor	18.2		
Grade Level		7.83	0.00
K-5	20.97		
6-8	10.81		
9-12	7.26		
Interactions Wealth/Grade Level		2.8	0.83
Alpha level = 0.05			

The probability value for the economic status of the districts is 0.07. This indicates there is no significant difference in the three levels of district spending for the paraprofessional category. Therefore, the null hypothesis cannot be rejected.

The probability value for the grade level is 0.00. This indicates a difference in the three grade levels of spending in terms of outcome measures. The K-5 mean for

paraprofessional spending is twice as great as it is for the other two categories. As a result, the null hypothesis for the grade level is rejected.

For the interaction hypothesis, the probability value of 0.83 indicates there is no interaction between the economic status of the district and the grade level of spending for the paraprofessional category of spending. This does not allow rejecting the null hypothesis.

Hypothesis 2

H₀1: The mean for the professional instructors/assistants services and programs purchased with Section 31a funding will be equal for the three economic levels of districts.

H₀2: The mean for professional instructors/assistants services and programs purchased with Section 31 a funding will be equal for the three grade levels.

H₀3: There is no interaction between grade level and economic level of the district for the professional instructors/assistants services and programs purchased with Section 31a funding.

Table 8 shows the results of the two-way ANOVA for hypothesis two.

The probability value for the economic status of the districts is 0.18. This is greater than the acceptable alpha level of 0.05, therefore the null hypothesis cannot be rejected. This indicates there is no significant difference in the three levels of district spending for the professional instructors/assistants category.

Table 8
Statistical Measures of District Professional
Instructors/Assistants Purchases Between
Grade Level and Economic Level

Source of Variation	Means	F Value	Sig of F (p)
Economic Status		1.73	0.18
Wealthy	12.7		
Intermediate	7.8		
Poor	14.9		
Grade Level		6.80	0.001
K-5	19.4		
6-8	24.9		
9-12	15.4		
Interactions Wealth/Grade Level		0.302	0.88

Alpha level = 0.05

The probability value for the grade level is 0.001. This indicates a difference in the three grade levels of spending in terms of outcome measures for the spending category professional instructors/assistants. As a result, the null hypothesis for the grade level is rejected.

For the interaction hypothesis, the probability value of 0.88 indicates there is no interaction between the economic status of the district and the grade level of

spending for the professional instructors/assistants category of spending. Therefore, the null hypothesis cannot be rejected.

Hypothesis 3

H₀1: The mean for the alternative education programs purchased with Section 31a funding will be equal for the three economic levels of districts.

H₀2: The mean for alternative education programs purchased with Section 31 a funding will be equal for the three grade levels.

H₀3: There is no interaction between grade level and economic level of the district for the alternative education program purchased with Section 31a funding.

Table 9 shows the results of the two-way ANOVA for hypothesis three.

The probability value for the economic status of the districts is 0.71.

Therefore the null hypothesis cannot be rejected. This indicates there is no significant difference in the three levels of district spending for the professional instructors/assistants category.

The probability value for the grade level is 0.00. This indicates a difference in the three grade levels of spending in terms of outcome measures for the spending category professional instructors/assistants. As indicted by the means for grade level, there is a greater than 3:1 difference in spending between grades K-5 and the other two grade levels. As a result, the null hypothesis for the grade level is rejected.

For the interaction hypothesis, the probability value of 0.47 indicates there is no interaction between the economic status of the district and the grade level of

Table 9

Statistical Measures of Alternative Education Programs
Purchases Between Grade Level and Economic Level

Source of Variation	Means	F Value	Sig of F (p)
Economic Status		0.350	0.71
Wealthy	12.7		
Intermediate	11.8		
Poor	14.9		
Grade Level		13.07	0.00
K-5	24.03		
6-8	7.58		
9-12	7.56		
Interactions Wealth/Grade Level		0.896	0.47
Alpha level = 0.05			

spending for the professional instructors/assistants category of spending. This does not allow rejecting the null hypothesis.

Hypothesis 4

H₀1: The mean for the student academic assistance services and programs purchased with Section 31a funding will be equal for the three economic levels of districts.

H₀2: The mean for the student academic assistance services and programs purchased with Section 31a funding will be equal for the three grade levels.

H₀3: There is no interaction between grade level and economic level of the district for the student academic assistance services and programs purchased with Section 31a funding.

Table 10 shows the results of the two-way ANOVA for hypothesis four.

Table 10
Statistical Measures of District Student Academic Assistant
Between Grade Level and Economic Level

Source of Variation	Means	F Value	Sig of F (p)
Economic Status		0.581	0.56
Wealthy	7.8		
Intermediate	9.4		
Poor	5.7		
Grade Level		1.77	0.17
K-5	7.76		
6-8	4.59		
9-12	10.89		
Interactions Wealth/Grade Level		0.372	0.83
Alpha level = 0.05			

The probability value for the grade level of the districts is 0.17. Therefore the null hypothesis cannot be rejected. This indicates there is no significant difference in the three grade levels spending for the student academic assistance category.

For the interaction hypothesis, the probability value of 0.83 indicates there is no interaction between the economic status of the district and the grade level of spending for the student academic assistance category of spending. Therefore, the null hypothesis cannot be rejected.

Hypothesis 5

H₀1: The mean for the student physical assistance services and programs purchased with Section 31a funding will be equal for the three economic levels of districts.

H₀2: The mean for the student physical assistance services and programs purchased with Section 31a funding will be equal for the three grade levels.

H₀3: There is no interaction between grade level and economic level of the district for the student physical assistance services and programs purchased with Section 31a funding.

Table 11 shows the results of the two-way ANOVA for hypothesis five.

The probability value for the economic status of the districts is 0.01. This value is too great to attribute to sampling errors or fluctuation; therefore, the null hypothesis is rejected. This indicates a difference in the outcome measured in the three levels of district spending for the student physical assistance category. The

Table 11
Statistical Measures of District Student Physical
Assistance Purchases Between Grade Level
and Economic Level

Source of Variation	Means	F Value	Sig of F (p)
Economic Status		4.85	0.01
Wealthy	9.3		
Intermediate	9.7		
Poor	18.4		
Grade Level		4.16	0.02
K-5	17.20		
6-8	10.77		
9-12	8.63		
Interactions Wealth/Grade Level		0.466	0.76
Alpha level = 0.05			

means show that the poor districts spend twice as much on student physical assistance than the wealthy and intermediate districts.

The probability value for the grade level is 0.02. This indicates a difference in the three grade levels of spending in terms of outcome measures. The mean values indicate a much larger portion of student physical assistance funding spent for grades

K-5 than there is for grades 6-8 and 9-12. As a result, the null hypothesis for the grade level is rejected.

For the interaction hypothesis, the probability value of 0.76 indicates there is no interaction between the economic status of the district and the grade level of spending for the student physical assistance category of spending. This does not allow rejecting the null hypothesis.

Hypothesis 6

H_{01} : The mean for the student social assistance services and programs purchased with Section 31a funding will be equal for the three economic levels of districts.

H_{02} : The mean for the student social assistance services and programs purchased with Section 31a funding will be equal for the three grade levels.

H_{03} : There is no interaction between grade level and economic level of the district for the student social assistance services and programs purchased with Section 31a funding.

Table 12 shows the results of the two-way ANOVA for hypothesis six.

The probability value for the economic status of the districts is 0.07. Therefore, the null hypothesis cannot be rejected. This indicates there is no significant difference in the three levels of district spending for the student social assistance category.

Table 12

Statistical Measures of District Student Social
Assistance Purchases between Grade Level
and Economic Level

Source of Variation	Means	F Value	Sig of F (p)
Economic Status		2.74	0.07
Wealthy	8.8		
Intermediate	8.2		
Poor	16.2		
Grade Level		6.57	0.002
K-5	18.07		
6-8	7.94		
9-12	7.08		
Interactions Wealth/Grade Level		2.91	0.22

Alpha level = 0.05

The probability value for the grade level is 0.002. This indicates a difference in the three grade levels of spending in terms of outcome measures. As the means show, spending for grades K-5 is more than twice the amount spent for grades 6-8 and 9-12. As a result, the null hypothesis for the grade level is rejected.

For the interaction hypothesis, the probability value of 0.22 indicates there is no interaction between the economic status of the district and the grade level of

spending for the student social assistance category of spending. This does not allow rejecting the null hypothesis.

Summary

In this chapter the correlation data between what the surveyed districts “say” or “regard” as important services and programs to purchase with Section 31a funding and what they “do” or “actually” purchase with this funding were examined. The measured relationship resulted in a moderately positive correlation. A strong, positive correlation was evident regarding the relationship between what was viewed as the most important grade level for intervention and where the at-risk money was spent.

In the ANOVA studies, measuring spending between the six categories of the dependent variable and the three categories of district wealth and three categories of grade level resulted in a split between no difference in spending and some significant differences in the outcome measures.

In Chapter V, the purpose of the study and review of the literature are summarized. Interpretation of the results and some limitations of the study are addressed. And finally, a discussion on the significance of the study and recommendations for further research are presented.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this study was to determine if there is a relationship between three related variables regarding Section 31a funding for at-risk students in the State of Michigan. It attempted to determine if there is a relationship between:

1. What school districts say or view as effective at-risk services and programs to purchase with Section 31a funding and the actual programs and services purchased.
2. What school districts say or view as the most critical grade level for at-risk intervention and spending and the actual grade-level spending of the districts.
3. Spending of Section 31a funding between districts of different socioeconomic levels.

Purpose of the Study

Children born into poverty suffer from disadvantages that hinder their ability to learn, achieve, and live productive lives. These are America's at-risk children. The provision of equal opportunity to learn is one of America's most fundamental and enduring ideals. It provides the foundation upon which school reform strategies may be built (Verstegen, 1993).

Increasing the opportunity for academic success of at-risk children means changes within the schools, how programs for these children are funded, and how the schools spend their at-risk funding. Experience indicates that solutions must reach beyond the academic school setting and school year. Early intervention is critical in breaking the cycle of at-risk children. How to best provide for the at-risk American children is an ongoing concern for both federal and state governments.

In its finance reform of 1994, the State of Michigan sought to level the playing field between non at-risk children and at-risk children. The reform included a plan for “unequal treatment of unequals” seeking to provide additional programs and services for children born into homes or situations that classified them as “poor.” In addition to a plan that attempted to equalize the foundation allowance, the original reform included a Section 31a fund, which provided an additional 230 million dollars “earmarked” specifically for at-risk children. The current Section 31a budget is 250 million dollars.

As the debate over financial equity and quality of education continues, it is important to know the “what, how, and when” of at-risk spending. Is it being spent on the most effective programs and services to address the needs of at-risk children? And, is the intervention occurring at the most affective time in the academic lives of children?

The purpose of this study was to establish which programs and services are being purchased with Section 31a at-risk money. The study also measured the grade-level spending of the districts, and if there is a different pattern of spending between

different economic levels of districts. The study attempted to establish if a relationship exists between data collected from a sample of Michigan school districts who indicated what their district viewed as the best programs and services to purchase, and data collected from State Form 3741-B. It listed the programs and services, the expenditure, and the grade level of spending for each district. Several sets of variables were examined in an attempt to address this study. The dependent variables are measures of spending for six major categories of spending by the sampled districts. The spending amounts were compiled from State Form 3741-B, which is submitted each year to the State Department of Education. These variables are measures of educational cost for at-risk children. The independent variables are measures of grade-level intervention and spending patterns related to the economic level of the sampled district. These variables are measures of educational effectiveness of at-risk spending in light of what the sampled districts “said” and what they “did.”

Summary of Literature Review

The literature supports a relationship between quality education and student success. With this fact established, it becomes important to address the equity issue. Since quality is critical for student success, it becomes compelling that each student has equal opportunity for access to a quality education. This requires equal distribution of resources, particularly resources for at-risk children. With this agreement of purpose between quality and equity, it becomes important to know what

is regarded as quality programs and services and grade level intervention needed to increase the success of at-risk children.

Most at-risk students are intellectually capable children who are prevented by circumstances from taking advantage of educational opportunities. The National Research Council (1995) reports that there are approximately 6 million school-age children in working-poor families. Despite the healthy economy during the 1990s, this number continues to increase. This working poor population makes up a large percentage of at-risk youngsters. However, the spectrum is much broader than just the working-poor. It includes children whose parents are indifferent to education, children of teenage parents who are poorly equipped for parenting, children with learning disabilities, emotional problems, health problems, and substance abuse problems. Many come from non-English speaking homes or are children who have been subjected to racial or ethnic prejudices. In too many cases they are children who simply do not have access to quality schools. Effective intervention for this population will both enhance student success and result in increased, long-term, financial savings for the state (Barnett, 1985).

Literature indicates it is possible to increase the academic successes of at-risk children. It is interesting that the literature of the late 80s and 90s shows prudent spending of at-risk funds involve variables that previously commanded less consideration. Where better facilities, creative curriculums, and innovative administrators were previously viewed as effective ways to enhance student academic success, it is now shown that these areas are less important than excellence in

teaching, class size, health and welfare of the student, parental and community involvement, and early intervention.

District wealth is a critical variable. Poor districts have more poor children who have more special social needs. Health, emotional, and nutritional needs are now known to impact student learning and academic success. Therefore, in poor districts, expenditures for academic needs must be diverted to first addressing social needs. Only after these needs are addressed can an at-risk child take full advantage of academic expenditures designed for learning and academic success. It is in light of these literature findings that both instructional services and student support services were measured in this study.

Review of the literature revealed a common theme when outstanding schools were reviewed. It is interesting that it was not always an outstanding district reporting, but outstanding schools. Often within a school district made up of multiple schools, one or several would stand out as exemplary in increasing academic success of its at-risk children.

There are several characteristics of outstanding schools that recurred in the literature. The most effective variable listed in just about every study was about outstanding teachers. Across the board, all other variables were mentioned in subsequent sequences. Safe schools where children can and want to learn; emphasis on communication skills with proficiency in the English language; greater parental and community involvement; attention to health and emotional needs; early diagnosis and intervention; and supervised, adult-mentored extracurricular activities are some

of the other variables that outstanding schools offer to their at-risk population. These variables are in addition to instructional intervention of added professionals, paraprofessionals, and remedial opportunities.

Discussion of the Findings of the Study

There were two statistical techniques used for measuring the outcomes in this study. Two questions were measured using Spearman Rho's correlation coefficient and a third question was measured using two-way ANOVA.

Hypothesis 1

The result of hypothesis one that there is no relationship between programs and services reported as important for increasing success of at-risk students and the actual services and programs purchased was a correlation coefficient of 0.4857. Interpretational guidelines specifies this value as a low positive correlation between the variables. This suggests that there may be other factors contributing to the differences in what districts reported as critical spending and their actual spending patterns. Based on these findings, the null hypothesis that there is no relationship between programs and services reported as important and those actually purchased was accepted.

Hypothesis 2

The results of hypothesis 2 that the critical grade-level for increasing success of at-risk students indicted by the districts will show no relationship to the actual grade levels of spending was a correlation coefficient of one. This coefficient indicates that there is a very high positive correlation between what districts indicated on the questionnaire as critical grade levels for intervention and the actual spending by grade level. Spending of Section 31a funding occurred as the districts indicated. This does not allow acceptance of the null hypothesis.

Question 3

Question 3 contains six categories of a single dependent variable and two independent variables. A two-way analysis of variance (ANOVA) is the statistical technique used to measure this question. Because there are two independent variables and a possible interaction between the two independent variables, each category of the dependent variable will include three null hypotheses. Hypotheses were rejected at the 0.05 confidence level.

The six spending categories of the dependent variables are: paraprofessional, professional instructors and assistants, alternative education programs, student academic assistance, student physical assistance, and student social assistance. The three null hypotheses submitted for measuring each of the six dependent categories are:

H₀1: The mean for the (specific category) services and programs purchased with Section 31a funding will be equal for the three grade levels.

H₀2: The mean for the (specific category) services and programs purchased with Section 31a funding will be equal for the three economic levels of the districts.

H₀3: There is no interaction between grade level and economic level of the district for the (specific category) services and programs purchased with Section 31a funding.

Category One: Paraprofessional Spending

The probability value for the first null hypothesis measuring spending between the economic status of the districts is 0.07. This shows that despite differences in economic levels, sampled districts spend approximately the same percentage of their at-risk funding for paraprofessional services. The null is therefore not rejected.

The second null hypothesis of category one reports a probability value of 0.00. Comparing the means for grade-level spending in Table 7 shows approximately a 2:1 spending difference between K-5 and the other two grade levels. As a result, the null hypothesis is rejected.

The probability value of 0.83 for the interaction hypothesis indicates no interaction between the economic status of the districts and grade-level spending for paraprofessional expenditures. This does not allow rejection of the null hypothesis.

Category Two, Category Three, and Category Six: Professional Instructors/Assistants, Alternative Education Programs, and Student Social Assistance

Four of the six ANOVA outcomes fall into a pattern of not rejecting the hypothesis for H_{01} and H_{03} and rejecting the hypothesis for H_{02} . In addition to the first category of paraprofessional spending, the pattern is repeated for spending category two, professional instructors and assistants; category three, alternative educational programs; and category six, student social assistance. This translates into no significant difference in terms of outcome measures between the districts of different economic status as well as no interaction between district status and grade-level spending for at-risk children. Having to reject the null hypothesis for grade-level spending indicates there is a difference in the three grade levels of spending in terms of outcome measures.

Category Four: Student Academic Assistance

In category four, student academic assistance, all three null hypotheses were not rejected. An examination of the means for this category shows that there is little difference in levels of spending between districts of different economic status and between spending of the three categories of grade levels. Therefore, there also exists no interaction between the economic status of the district and grade level spending for at-risk students.

Category Five: Student Physical Assistance

In category five, student physical assistance, the null hypotheses was rejected for both the spending by districts of different economic status and district grade-level spending. These results are in keeping with the literature review, which reported that poor districts have a larger percentage of poor children. As a result, the poor districts spend a larger percentage of their Section 31a at-risk funding on physical needs of their students than do the wealthier districts. Many children, but especially poor children, begin their academic experience with greater physical needs than children who come from families who are not poor. In poor districts, there are greater demands on expenditures for breakfast and lunch programs, school nurses and health needs, transportation, and physical readiness for academic success/fitness programs.

Research supports early intervention for at-risk children (Berrueta et al., 1984; Edelman, 1989; Lazar & Darlington, 1984). The districts with the greatest number of poor children appropriately spend a larger percentage of Section 31a money for student physical assistance on the children in grades kindergarten through fifth grade. The means listed in Table 11 support this outcome.

Limitations of the Study

The issue of support and intervention for the poor or disabled carries powerful emotions and political overtones. These issues have resulted in debate and research which has not settled the debate. Conservative politicians use research results that indicate little correlation between spending and increased student achievement to

advance their particular platform. Less conservative individuals, sometimes using the same data but different statistical techniques, report significant correlation's between funding and student success. Much of this ambiguity is the result of the public questioning the quality of education when there exists no agreement on exactly what the public wants schools to do. Surveys show that the same people who think schools are not doing an adequate job with education in general usually rate their own local schools highly (Ball & Goldman, 1997). A result of the public not knowing exactly what it is they want from education, other than it must be equitable, makes it difficult to measure effective outcomes of programs and services.

A second limitation of this study is the recent finance reform (1994) in Michigan and its plan for addressing at-risk children. Before Section 31a funding for at-risk children, the state had a huge, unwieldy, plethora of categorical listings, many of which required little accountability or evaluation. At-risk funding by the state now requires each district to report, with Form EC 4731-B, the services and program expenditures as well as the grade-level expenditures. The individual districts are asked to respond on the same form to a series of questions indicating positive, affective results of their expenditures. As this body of data increases, it will enhance the potential of measuring the most effective services and programs for increasing academic success of at-risk children.

The economic status of the district might also be a limitation of this study. Simply due to availability of funds, poor districts are often behind wealthier districts in school improvement. Federal monies available for programs targeted to at-risk

children make up only about 7 percent of state education budgets. Local districts in low-income areas where compensatory programs are most needed rarely have sufficient revenue to offer the special programs at-risk students require (Drazen, 1992). This will affect which programs and services the poorer districts will indicate on the questionnaire as important for implementation and how they spend Section 31a funding. Districts with more money may have these programs and services already in place and consequently they would indicate different programs and services as important for addressing at-risk students.

Recommendations for Further Study

The issue of educational quality and equity continues to be one of the critical debates in our society. How can education for all students be of the best quality with an equal opportunity for each student? The discussion eventually comes down to which programs and services prove to be most effective for increasing success of at-risk students in particular as well as students in general. Educators must convince those who pay taxes to support education that will increase student success despite the difficulty of defining success. It is important that accountability for Section 31a funding for at-risk students continue and research and statistical measurements of the research be made available to the Michigan Department of Education and each district within the state that receives at-risk funding. Dialogue is needed at the local, state, and national level about the purpose of education and equity in education. Understanding long-term goals for children, educating parents and community about

successful models of reform, helping organize and involve disadvantaged parents, and establishing a “bottom line” in educational fairness are critical issues.

There must be a serious commitment to educational research to establish what works, what doesn’t work, and what are the conditions where reform strategies succeed. This research must do more than view initiatives as isolated entities, but rather look at how reforms and policies interact and reinforce each other in the educational process.

There must be the foresight and courage to invest in educational practices that may deviate from the existing educational system. It may be the system is its own biggest enemy. In his book, Political Leadership and Educational Failure, (1998, p. 141) Seymour Sarason indicates the educational system may not be able to be rescued. He writes,

what finally convinced me was the recognition that no one--not teachers, not administrators, not researchers, not politicians, and certainly not students--willed the present state of affairs. They were all caught up in a system that had no self-correcting features, a system utterly unable to create and sustain contexts of productive learning...There are no villains. There is a system.

An important consideration for further research would center on alternative ways of measuring student success. Literature has established the importance of addressing the physical and social needs of students when determining academic success. Datcher-Loury (1989) studied a group of low-income black children from three different locations to determine if differences in academic performance were attributable to differences in behavior and attitudes among the families. Datcher-Loury concluded that differences in family behavior and attitudes did have large and

important long-term effects on children's academic performance. As a result, Datcher-Loury suggested that programs aimed at altering parental behavior may be useful in helping overcome the effects of economic disadvantage on children's achievement. However, most of our current methods of measuring success center around achievement and a set of test scores on an outcome test. With achievement so difficult to define, could academic success be measured in alternative ways? Other variables of achievement such as financial earnings, quality of life, contentment, and successful marriages and families are all variables that determine success. Making these factors dependent variables instead of dollars spent may be an effective way to determine student success.

There is a need for research to determine if unions that focus on guaranteed lifestyle and job security are counterproductive to academic equity and achievement. The focus of all educators and unions must be to insure quality, equitable education for all students, most importantly at-risk students. At-risk students are a resource that cannot be ignored.

With literature showing the importance of good teaching, there is a need to research qualities of successful teachers. Compensation strategies that reward excellence, experience, and skill over tenure should be a major consideration for unions. Teacher certification is an area for inspection. Should levels of performance outcomes qualify teachers for different levels of certification and compensation? Would this attract the best and brightest individuals to pursue a career in education?

Literature supports the fact that schools can be substantially improved with creative use of resources.

Summary

The primary purpose of this study was to measure three variables of Section 31a At-Risk Funding provided by the Michigan Tax Reform of 1994. Chapter I of this study began with a discussion on the background of quality and equity in education. The American public's regard for quality and equity in education has significantly increased in the last few decades.

As educational accountability for quality and equity comes under greater pressure to increase student success, the lack of resources and research information becomes painfully obvious. With the finance reform of 1994, the state is addressing the equity problem. A major obstacle is the lack of a definition of quality education. It is critical to continue research to determine what are components of a quality program and academic success. Chapter II reviewed the literature on what constitutes an at-risk child, what are the characteristics of outstanding schools and programs that result in success for at-risk children, and what are the cultural and financial results of not addressing at-risk children. It is obvious that money alone does not result in higher student achievement and individual success. How money is spent for at-risk children is equally or more important than how much money is spent.

Research indicates excellence in teaching as possibly the single most important factor for increasing student academic success. Other factors that emerged

are smaller class size, addressing health and social needs, early intervention, and involvement of parents and community. Perhaps the Michigan Department of Education should require a percentage of Section 31a funding to be spent on these factors.

Chapter III described the methods and procedure to acquire the data used to carry out the study. Chapter IV reported how the questions were asked in the null form and the results of the study. Chapter V summarized the study and made recommendations for future research.

Appendix A

Letter to the Michigan Department of Education Requesting Bulletin 1014 Financial Data

Ms. Glenda Rader
Financial Management Services
P.O. Box 30106
Lansing, MI 48909

Dec 13, 1997

Dear Ms. Rader:

As per our telephone conversation, I am requesting, under the Freedom of Information Act, a copy of Michigan Department of Education Bulletin 1014 outlining expenditures of school districts in the state of Michigan for the 1996-97 school year.

Enclosed is the payment for the expenses associated with this request. Please send the document to:

Ben Meyer
2715 Buchanan
Marne, MI, 49435

Thank you for your assistance in this matter and in our conversation via the telephone.

Sincerely,

Ben Meyer

Appendix B

**Letter to Michigan Education Directory Inc.
Requesting 1998 Michigan Education Directory**

Michigan Education Directory Inc.
P.O. Box 15223
Lansing, MI, 48901

January 10, 1998

Dear Sir:

As per our telephone conversation, I am requesting under the Freedom of Information Act, a copy of the 1998 Michigan Education Directory reporting the addresses, phone numbers, FAX numbers, and names of administrators of the Michigan school districts.

Enclosed is \$22.25 for the expenses associated with this request. Please send the document to:

Ben Meyer
2715 Buchanan
Marne, MI, 49435

Thank you for your assistance in this matter.

Sincerely,

Ben Meyer

Appendix C

Questionnaire to Sampled Districts
in the State of Michigan

Date:

Inside Address:

Dear Educator:

Please allow me to explain the survey on the accompanying sheet. I am working on my doctoral degree in Educational Leadership (EdD) from Western Michigan University. My area of research centers around the Michigan Department of Education's Section 31a Program for At-Risk Pupils.

The data that I am interested in collecting are the services and programs that your district views as important for increasing academic achievement of at-risk students. This survey is not asking you **how** your district spends its Section 31a funding, but **what** you feel are the most effective and efficient services and programs for addressing at-risk students. As a result of my literature review, I have categorized the areas of spending into two main categories: Instructional Services and Pupil Support Services. Each category is further divided into three subcategories related to these main categories. I have listed a variety of programs and services under these subcategories to help define the six main subcategories.

There is a second short survey at the end of the first survey. Will you also **rank order** which **grade levels** you view as most important when using Section 31a funding to improve achievement of at risk students.

As a teacher and former administrator, I am aware of your busy schedule. With this in mind, I have tried to make this survey time-friendly. My request is that you will take a few minutes and **rank order** the six categories **in order of importance** as viewed by your district in serving at-risk students.

If you are not the appropriate individual in your district to fill out this survey, would you please forward it to whomever is the appropriate person.

Thank you for taking the time to respond to this survey. I have enclosed a stamped, self-addressed envelop for the return mailing. If you have any questions regarding this survey I can be reached at 1-616-677-5863. My mailing address is 2715 Buchanan, Marne, MI, 49435.

Sincerely,

Ben Meyer

DISTRICT _____ CONTACT PERSON _____ PHONE _____

SURVEY #1

CATEGORY RANKING

(Please rank order as 1, 2, 3, 4, 5, and 6)

INSTRUCTIONAL SERVICES:

_____ **Paraprofessional Assistance**

After School Tutoring, Homework Club, Homework Table, Volunteer Programs, Study Skills Programs, Technology/Computer Labs/Computer Assisted Instruction, Volunteer Programs, Art/Drama Classes, Preschool Programs, Resource Room

_____ **Professional Instructors/Assistants**

Full Day Kindergarten, Science/Math Teachers, Speech Therapy, Language Arts/Reading Teachers, Reading Recovery/Reading Programs, HOTS/HOSTS, Bilingual Programs/English as a Second Language, Staff Development,

_____ **Alternative Education Programs**

School to Work Transition Programs, Kindergarten 1st grade Alternate Program, Full Day Kindergarten, Extended Year-Summer Programs, Class Size Reduction, Extended Day, Saturday Schools, Field Trips, Multi-age/Ungraded Classrooms, Diversity Programs, Merit Scholar Programs, Ninth Grade Restructuring, At Risk Gifted Programs, Incentive Programs.

PUPIL SUPPORT SERVICES:

_____ **Student Academic Assistance**

Behavior Management/Detention, In School Suspension and Truancy Support, Attendance Monitoring, Operation Graduation/Dropout Prevention Programs, MEAP/HSPT Support, After-school Tutoring/Homework Club/Homework Table, Study Skills Classes, Library Instruction, Learning Assistance Centers, Elementary Success Programs,

_____ **Student Physical Assistance**

Breakfast Programs, Supplies, Materials/Software, Curriculum, Nurse, Health Needs, Transportation, Physical Readiness for Academic Success/Fitness Programs, Safe Schools Programs, Lunch Hour Supervision, Therapeutic Riding Programs,

_____ **Student Social Assistance**

Home-School Liaison/ Parent-Teacher Programs, Counselors, Counseling, Social Workers/Psychologists, Mentors-Community Peers, Teachers, Pregnant Teen or Teenage Parent Programs, Police Officer Awareness Programs/Drug Prevention, Peer Assisted Leadership Programs (PAL), At Risk Evaluations/Identification/Plans, Peer Conflict Management/Healthy Relationship Groups,

SURVEY #2

PRIORITY OF GRADE LEVEL SPENDING

Please rank order as 1, 2 and 3

_____ **K-5** _____ **6-8** _____ **9-12**

Appendix D

Sample of Department of Education Form EC 4731-B Report on Usage of Section 31a Funds

WORKSHEET A
(for EC-4731-B Page 2)

PART II, REPORT ON USAGE OF SECTION 31a FUNDS

INDIVIDUAL BUILDING LEVEL INSTRUCTIONAL SERVICES
(Complete for each participating building.)

BUILDING NAME: _____ **DISTRICT NAME:** _____

PERSON COMPLETING THIS WORKSHEET: _____

PROGRAM OR SERVICE					GRADE SPAN	# OF AT RISK SERVED	31a FUNDS ALLOCATED
INDIVIDUAL OR SMALL GROUP INSTRUCTION	Math	Language Arts	Science	Social Studies			
PARAPROFESSIONAL							
CERTIFIED TEACHER							
Reduced Class Size (K-6 Only)						*	
Extended Day							
Saturday Programs							
Extended Year (Summer Programs)							
Computer Assisted Instruction							
Reading Recovery							
H.O.T.S.							
Volunteer Tutoring							
H.O.S.T.S.							
Alternative Education Programs							
Teen Pregnancy Instruction							
Bilingual Instructional Program							
Other (Describe)							
Other (Describe)							
Other (Describe)							
TOTAL \$ Amount							\$

* Total Number of Students in Reduced-Size Classes

WORKSHEET B
(for EC-4731-B Page 2)

PART II, REPORT ON USAGE OF SECTION 31a FUNDS

INDIVIDUAL BUILDING LEVEL PUPIL SUPPORT SERVICES
(Complete for each participating building.)

BUILDING NAME: _____ **DISTRICT NAME:** _____

PERSON COMPLETING THIS WORKSHEET: _____

PROGRAM OR SERVICE	GRADE SPAN	# OF AT RISK SERVED	31a FUNDS ALLOCATED
Teen Parenting Program			
Counseling Services			
Social Worker			
Nursing Services			
Student Assistance Programs (SAP)			
Behavior Management & Training Programs			
Mentoring Programs			
Home/School Liaison Programs			
Breakfast Programs			
Other (Describe)			
Other (Describe)			
Other (Describe)			
TOTAL			\$
\$ Amount			

WORKSHEET C
(for EC-4731-B Page 2)

PART II. REPORT ON USAGE OF SECTION 31a FUNDS

DISTRICT LEVEL INSTRUCTIONAL SERVICES

DISTRICT NAME: _____

PERSON COMPLETING THIS WORKSHEET: _____

PROGRAM OR SERVICE					GRADE SPAN	# OF AT RISK SERVED	31a FUNDS ALLOCATED
INDIVIDUAL OR SMALL GROUP INSTRUCTION	Math	Language Arts	Science	Social Studies			
PARAPROFESSIONAL							
CERTIFIED TEACHER							
Reduced Class Size (K-6 Only)						*	
Extended Day							
Saturday Programs							
Extended Year (Summer Programs)							
Computer Assisted Instruction							
Reading Recovery							
H.O.T.S.							
Volunteer Tutoring							
H.O.S.T.S.							
Alternative Education Programs							
Teen Pregnancy Instruction							
Bilingual Instructional Program							
Other (Describe)							
Other (Describe)							
Other (Describe)							
TOTAL							\$
\$ Amount							

*Total Number of Students in Reduced-Size Classes

WORKSHEET D
(for EC-4731-B Page 2)
PART II, REPORT ON USAGE OF SECTION 31a FUNDS

DISTRICT LEVEL PUPIL SUPPORT SERVICES

DISTRICT NAME: _____

PERSON COMPLETING THIS WORKSHEET: _____

PROGRAM OR SERVICE	GRADE SPAN	# OF AT RISK SERVED	31a FUNDS ALLOCATED
Teen Parenting Program			
Counseling Services			
Social Worker			
Nursing Services			
Student Assistance Programs (SAP)			
Behavior Management & Training Programs			
Mentoring Programs			
Home/School Liaison Programs			
Breakfast Programs			
Other (Describe)			
Other (Describe)			
Other (Describe)			
TOTAL \$ Amount			\$

WORKSHEET E
(for EC-4731-B Page 2)
PART II, REPORT ON USAGE OF SECTION 31a FUNDS
DISTRICT COMPILED REPORT
 (Combined totals from building level and district level worksheets;
 may be submitted to MDE instead of EC-4731-B Page 2)
INSTRUCTIONAL SERVICES
AMOUNTS ALLOCATED FOR USE IN 1996-97

1995-96 CARRYOVER	1996-97 REGULAR	TOTAL

DISTRICT NAME: _____

PERSON COMPLETING THIS WORKSHEET: _____

PROGRAM OR SERVICE					GRADE SPAN	# OF AT RISK SERVED	31a FUNDS ALLOCATED
INDIVIDUAL OR SMALL GROUP INSTRUCTION	Math	Language Arts	Science	Social Studies			
PARAPROFESSIONAL							
CERTIFIED TEACHER							
Reduced Class Size (K-6 Only)						*	
Extended Day							
Saturday Programs							
Extended Year (Summer Programs)							
Computer Assisted Instruction							
Reading Recovery							
H.O.T.S.							
Volunteer Tutoring							
H.O.S.T.S.							
Alternative Education Programs							
Teen Pregnancy Instruction							
Bilingual Instructional Program							
Other (Describe)							
Other (Describe)							
Other (Describe)							
TOTAL \$ Amount							\$

* Total Number of Students in Reduced-Size Classes

TOTAL.
\$ Amount

\$

WORKSHEET F
(for EC-4731-B Page 2)

PART II, REPORT ON USAGE OF SECTION 31a FUNDS

DISTRICT COMPILED REPORT

(Combined totals from building level and district level worksheets;
 may be submitted to MDE instead of EC-4731-B Page 2)

PUPIL SUPPORT SERVICES

DISTRICT NAME: _____

PERSON COMPLETING THIS WORKSHEET: _____

PROGRAM OR SERVICE	GRADE SPAN	# OF AT RISK SERVED	31a FUNDS ALLOCATED
Teen Parenting Program			
Counseling Services			
Social Worker			
Nursing Services			
Student Assistance Programs (SAP)			
Behavior Management & Training Programs			
Mentoring Programs			
Home/School Liaison Programs			
Breakfast Programs			
Other (Describe)			
Other (Describe)			
Other (Describe)			
TOTAL \$ Amount			\$

WORKSHEET G
(for EC-4731-B Page 3)

PART III, PROGRAM EVALUATION
(May be submitted to MDF instead of EC-4731-B Page 3)

Check One:

- ☐ Individual Building Level (Name) _____
☐ District Level (Name) _____

Check One:

- ☐ Instructional Services
☐ Pupil Support Services

PROGRAM OR SERVICE: _____

PERSON COMPLETING THIS WORKSHEET: _____

• Indicate the types of student achievement data collected for review: (Check all that apply)

- ☐ Student achievement data reviewed (disaggregated at-risk students)
☐ MEAP results (disaggregated at-risk population)
☐ Attendance
☐ Drop-out rate
☐ Suspensions/Expulsions
☐ Behavior referrals
☐ Report Cards
☐ Other classroom or district test data
☐ Survey
☐ Other (Describe)

• Indicate how the data are analyzed and reviewed: (Check all that apply)

- ☐ Data collected over a period of time
☐ Pre/post test data used
☐ Data represented graphically

• Indicate the persons involved: (Check all that apply)

- ☐ Administrators
☐ Support Services Staff
☐ Teachers
☐ Parents
☐ Paraprofessionals
☐ Other (Describe)

Briefly describe the following:

- The effects of program services on student achievement: (Evidence of positive effect, if any, on student achievement in core content areas)
- Other factors suggested by the data that affect program success: (Data supporting improvement in non-academic areas, such as attitude, self-esteem, parent involvement)
- Program modifications made as a result of the review: (Changes made based on collected data)

Appendix E
Statewide Summary of Services Provided
by 1996-97 Section 31a Funds

Statewide Summary of Services Provided by 1996-97 Section 31a Funds

Type of Service	Number of Districts Operating Program	Total Number of Students Served	Total Amount Allocated
Paraprofessionals	302	134,355	\$20,824,041
Breakfast Programs	219	140,531	2,054,302
Extended Year - Summer Programs	218	34,909	6,083,334
Language Arts/Reading Teachers	218	184,929	21,709,132
Technology/Computer Labs/Computer Assisted Instruction	204	131,461	13,443,349
Counselors/Counseling Services	202	84,478	12,221,153
Supplies/Materials/Software/Curriculum	131	95,465	3,668,916
Alternative Education Programs	130	24,937	37,838,068
Reduced Class Size K-6	129	38,924	28,839,343
Social Workers/Psychologists	128	101,129	12,592,588
Reading Recovery/Reading Programs	127	15,783	6,867,806
Extended Day	123	33,188	3,538,511
Student Assistance Programs (SAP)/Attendance Monitoring Programs	97	68,100	7,083,346
Behavior Management/Detention/In School Suspension & Truancy Support	93	47,387	3,712,340
Home-School Liaison/Parent-Teacher Programs	73	51,237	3,900,353
MEAP/HSPT Support	69	20,252	2,532,379
After-school Tutoring/Homework Club/Homework Table	65	8,551	815,684
Nurse/Health Needs	62	86,563	2,260,910
HOTS or HOSTS	55	4,878	2,613,193
Mentors—Community, Peer, High School Teacher or NHS Students	49	14,198	1,705,579
Volunteer Programs	40	4,879	247,244
Saturday Schools	36	4,318	275,469
Bilingual Programs/English as a Second Language	33	4,578	2,112,553
Pregnant Teen or Teenage Parent Programs	30	3,424	3,858,406
Math Teachers	27	8,066	1,604,594
Staff Development	19	9,054	75,259
Police Office Awareness Programs/Drug Prevention	18	9,367	206,236
Study Skills Classes	16	3,243	578,305
Transportation	15	4,244	74,691
Science Teachers	14	1,195	365,408
School to Work Transition Programs	12	3,457	1,273,792
Operation Graduation/Drop-out Prevention Programs	10	1,261	952,462
Field Trips	9	8,141	142,197
At Risk Evaluations/Identification/Plans	8	2,696	74,506
Library Instruction	7	1,990	61,813
Full Day Kindergarten	7	2,518	3,201,222
Kindergarten/1st grade Alternative Programs	7	1,158	236,949
Peer Assisted Leadership Programs (PALS)	7	1,237	108,718
Elementary Success Programs	7	165	31,532
Peer Conflict Management/Healthy Relationship Groups	6	1,910	126,337
Learning Assistance Centers	5	1,528	73,941
Diversity Programs	3	200	8,260
Multi-age/Ungraded Classrooms	3	901	289,050
Art/Drama Classes	2	833	160,179
Preschool Programs	2	32	230,280
Physical Readiness for Academic Success/Fitness Programs	2	900	10,800
Merit Scholar Programs	2	463	173,834
Ninth Grade Restructuring	1	17,789	923,858
Safe Schools Programs	1	2,220	91,945
Speech Therapy	1	255	320,550

Type of Service	Number of Districts Operating Program	Total Number of Students Served	Total Amount Allocated
Supervision - Lunch Hour	1	920	\$ 8,444
At Risk Gifted Programs	1	128	35,000
Site-Based Management	1	72,653	37,800,053
Cheff Center Therapeutic Riding Program	1	26	3,068
Incentive Programs	1	340	47,144
Resource Room	1	150	10,500
Totals	3,050	1,497,494	\$250,098,926

Appendix F
Sample Spreadsheet of Compiled Data
From Form EC 3741-B

A	B	C	D	E
101 Charlevoix Public	26748			26748
102				
103 Column Total by Code & Grade Level	1183974	1328323	1006111	3518410
104 Totals of Wealthy Districts	221770	689843	626422	1538035
105 Totals of Intermediate Districts	376902	158853	61948	597703
106 Total of Poor Districts	585302	479627	317741	1382672
107		Rank/Order		
108 Total of Paraprofessional	4269866	1		
109 Total of Professional Inst/Asst	3226915	2		
110 Total of Alt Ed. Programs	2070251	4		
111 Total Student Academic Asst	1458594	5		
112 Total Student Physical Asst	510493	6		
113 Total Student Social Asst	2367677	3		
114 Grand Total	13903796			
115				
116				
117 Total K-5 Spending	8640893	50.8		
118 Total 6-8 Spending	4355524	25.6		
119 Total 9-12 Spending	3988914	23.5		
120				
121 Wealthy Para Pro	1922632	26 K-5 Para Pro		1474832
122 Wealthy Pro	2354084	32 K-5 Pro		1563840
123 Wealthy Alt Ed	1023646	14 K-5 Alt Ed		645966
124 Academic Asst	733611	10 K-5 Aca Asst		366762
125 Physical Asst	152606	2 K-5 Phys Asst		235341
126 Social Asst	1257143	17 K-5 Social Asst		1089699
127 Total	7443722	Total		5376440
128 Intermed Para Pro	597703	25 6-8 Para Pro		1650903
129 Intermed Pro	292008	12 6-8 Pro		1041156
130 Intermed Alt Ed	667695	28 6-8 Alt Ed		669620
131 Intermed Academic Asst	347172	14 6-8 Aca Asst		376308
132 Intermed Physical Asst	165549	7 6-8 Phys Asst		154207
133 Intermed Social Asst	338877	14 6-8 Soc Asst		630544
134 Total	2409004	Total		4522738
135 Poor Para Pro	1749531	44 9-12 Para Pro		1144128
136 Poor Pro	580823	14 9-12 Pro		621919
137 Poor Alt Ed	347172	9 9-12 Alt Ed		754665
138 Poor Academic Asst	377811	9 9-12 Aca Asst		715521
139 Poor Physical Asst	192338	5 9-12 Phys Asst		120945
140 Poor Social Asst	771657	19 9-12 Soc Asst		647434
141 Total	4019332	Total		4004612

A	B	C	D	E
51 West Ottawa Public				0
52 Manistique Area Schools	91988			91988
53 Hasting Area Schools	40000			40000
54 St. Ignace Area Schools				0
55 St. Charles Community				0
56 Traverse City Area Public				0
57 Ithaca Public Schools				0
58 Ravenna Public Schools				0
59 Athens Area Schools	11025	11025	11025	33075
60 Davison Community				0
61 Carson City-Crystal Area	40583			40583
62 Fowlerville Community				0
63 Concord Community				0
64 Hart Public Schools				0
65 Gobles Public Schools				0
66 Mendon Community	22811			22811
67 Grant Public Schools				0
68 Sturgis Public Schools	26973	26973	26973	80919
69 Marysville Public Schools				0
70 Springport Public				0
71 Caro Community Schools				0
72 Colon Community	42013	7493		49506
73 Vicksburg Community		8270		8270
74 Carney-Nadeau Public				0
75 Ontonagon Area Schools				0
76 Ewen-Trout Creek				0
77 Constantine Public	7228			7228
78 Greenville Public	183825	183825		367650
79 Lakewood Public				0
80 Brandywine Public	93811			93811
81 Fremont Public Schools	56666	56666	56666	169998
82 Pinckney Community				0
83 Hillman Community		1187	1187	2374
84 Chassell Township		2123	2123	4246
85 Brown City Community				0
86 Peck Community Schools				0
87 North Adams-Jerome				0
88 Hopkins Public Schools	8802			8802
89 Northwest School District				0
90 Marion Public Schools		4424	4424	8848
91 Tawas Area Schools				0
92 Rudyard Area Schools	50889	50889		101778
93 Allegan Public Schools		39500		39500
94 Forest Area Community	15269			15269
95 Benzie County Central	42646	21223	204511	268380
96 Kingsley Area Schools		32906		32906
97 Uby Community Schools				0
98 Hesperia Community	21857	21857	21857	65572
99 Cheboygan Area		13716		13716
100 Stanton Township Public	8575	8575		17151

	A	B	C	D	E
1	K-5	1 6-9	1 9-12	1 Total	
2 L'Anse Cruese Schools					0
3 Berkley School District	5800	14300	12789		32889
4 Lake Shore Public					0
5 Battle Creek Public	61910	61910			123820
6 Frankenmuth School District					0
7 Flat Rock Community Schools	30802				30802
8 Wayne-Westland Community Schools	69771	69771	69771		209313
9 Grand Haven Public Schools					0
10 Boyne City Public Schools					
11 Utica Community Schools		491917	491917		983834
12 Waterford School District					0
13 Centreville Public Schools	13646				13646
14 Jackson Public Schools					0
15 Mt. Pleasant Public Schools					0
16 St. Joseph Public Schools					0
17 Littlefield Schools	25164				25164
18 Kenowa Hills Public Schools					0
19 Kentwood Public Schools					0
20 Grand Rapids Public Schools					0
21 Hartland Consolidated Schools					0
22 Ashley Community Schools					0
23 New Haven Community Schools		33934	33934		67868
24 Olivet Community Schools					0
25 Fowler Public Schools					0
26 Adrain Public Schools					0
27 Pottersville Public Schools					0
28 Carrollton Public Schools					0
29 Lincoln Park Public Schools		18011	18011		36022
30 Elk Rapids Public Schools	14677				14677
31 St. Johns Public Schools					0
32 Kearsley Community Schools					0
33 Addison Community Schools					0
34 North Dickinson County Schools	17948				17948
35 Fenton Area Public Schools					0
36 Cassopolis Public Schools					0
37 Chesaning Union Schools					0
38 Mona Shores Public Schools					0
39 Algonac Community Schools					0
40 North Central Area Schools		20923	20923		41846
41 Anchor Bay Schools		30000	30000		60000
42 Bendle Schools					0
43 New Lothrop Area Schools					0
44 Thornapple-Kellogg Schools					0
45 Negaunee Public Schools	96905	96905			193810
46 Fulton Schools					0
47 Meridan Public Schools					0
48 Richmond Community Schools					0
49 Pine River Area Schools	55642				55642
50 Oscoda Area Schools					0

Appendix G

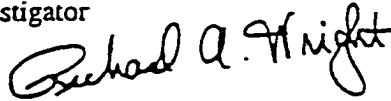
Copy of HSIRB Letter of Approval
From Western Michigan University

WESTERN MICHIGAN UNIVERSITY

Date: 12 August 1998

To: David Cowden, Principal Investigator
Ben Meyer, Student Investigator

From: Richard Wright, Chair



Re: HSIRB Project Number 98-08-02

This letter will serve as confirmation that your research project entitled "A Study of the Relationship Between Opinion and Actual Expenditures for Grade Level Intervention of Instructional and Pupil Support Services for At-Risk Students in the State of Michigan" was received by the Human Subjects Institutional Review Board.

The research described in the protocol which you submitted does not involve "human subjects" as defined in the federal regulations and HSIRB policies. Therefore, the project does not require HSIRB review or approval.

The Board wishes you success in the pursuit of your research goals.

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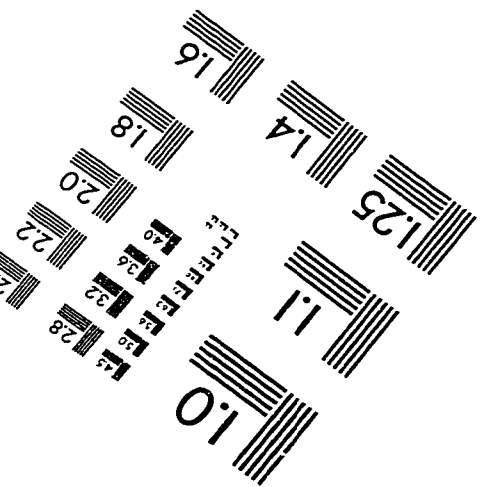
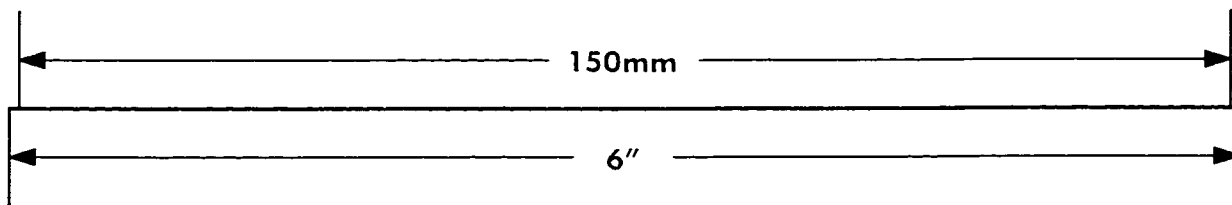
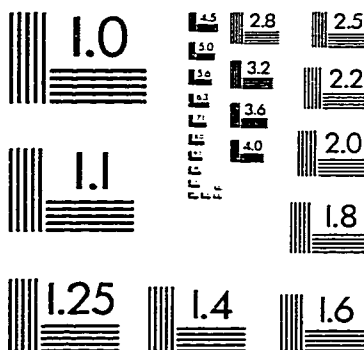
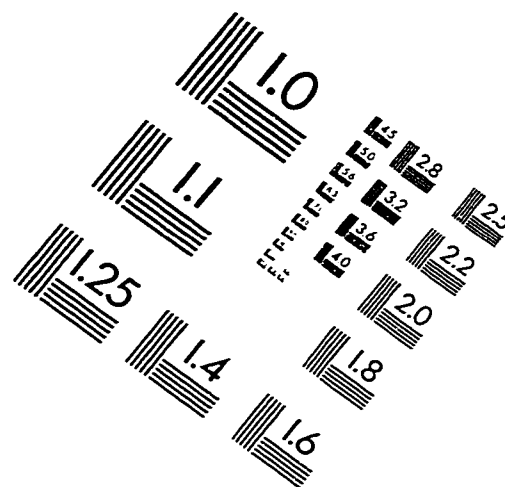
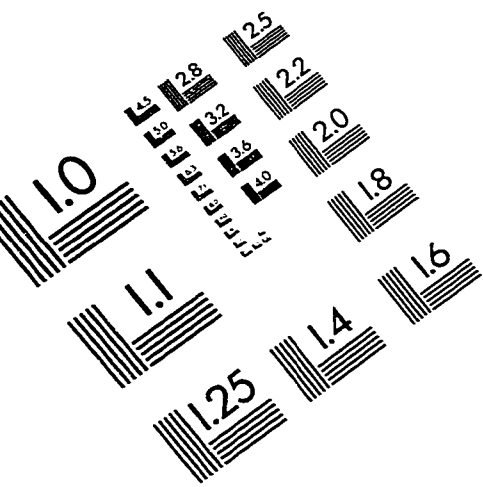
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IMAGE EVALUATION TEST TARGET (QA-3)



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