

1-1-2006

An Analysis of Spending Patterns in Dissimilar Revenue School Districts in the State of Michigan

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AN ANALYSIS OF SPENDING PATTERNS IN DISSIMILAR REVENUE
SCHOOL DISTRICTS IN THE STATE OF MICHIGAN

by

M. Scott Korpak

Dissertation

Submitted to the Department of Leadership and Counseling

Eastern Michigan University

in partial fulfillment of the requirements for the degree of

DOCTOR OF EDUCATION

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October 16, 2006

Ypsilanti, Michigan

DEDICATION

To my wife, Kimberly, who has provided positive, persistent encouragement over the course of many long evenings and weekends.

ACKNOWLEDGMENTS

My sincere appreciation goes to the many people who assisted in completing this dissertation. A special thanks goes to Dr. William Price, who has provided clear, consistent leadership and direction from the moment he agreed to be the chairperson for my committee. He has challenged me to think critically, evaluate research, ask questions, and persistently reach for clarity in my writing. Dr. Price embodies the qualities of a professional educator, and the completion of my dissertation is a clear reflection of his ability to encourage while instructing and guiding. In addition, I would like to thank Dr. Donald Bennion, Dr. Nelson Maylone, and Dr. Ron Williamson for the advice, encouragement, and direction they provided to me as committee members.

A special thanks must go to my wife, Kimberly. She has been consistently supportive of my work and has encouraged me to see every task through to completion. Finally, thank you to my mother and father for their countless sacrifices and encouragement that provided me with the opportunity and ability to pursue my dream of higher education.

ABSTRACT

The primary purpose of this study was to compare two districts with somewhat similar demographics but with dissimilar revenues to see whether or not additional funding per child resulted in enhanced learning opportunities for students in the higher funded district. In addition, although not a primary function of this study, student achievement was considered as a possible outcome for students who had enhanced learning opportunities.

Because public school funding is determined by policy makers, three public policy questions were the basis for comparing the two districts. The three questions were as follows: (a) Should a child's zip code determine the amount of money spent on his/her education? (b) Is the current minimum funding provided to the majority of schools in the state of Michigan "adequate"? and (c) Do schools that receive more than the minimum funding per student use that money to provide enhanced learning opportunities for their students?

The specific enhanced learning opportunities that were examined in this study were as follows: (a) K-3 class size; (b) special reading programs, especially in lower elementary; (c) advanced placement/honor classes; (d) foreign language courses; (e) music, art, and athletics; and (f) continued teacher learning. The results of this study revealed that the higher funded school district provided enhanced learning opportunities to a much greater degree than did the lower funded school district. The only area that was comparable was that of K-3 class size. It was very evident that the higher funded school district spent its additional funding on areas that benefited students. This may be one of the reasons that the students in the higher funded school district had much higher MEAP and standardized test scores.

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CHAPTER 1: INTRODUCTION AND BACKGROUND INFORMATION

The oversight of education has steadily moved from a local responsibility to a state and national responsibility. This movement began with the *Elementary and Secondary Education Act* (ESEA) of 1965 and continues today with the *No Child Left Behind Act* (NCLB) of 2002. Each of the various reform measures implemented by the federal government in the past 40 years has tightened the state and federal control of what schools teach, how they teach, when they teach, and, possibly most important, how public schools are funded.

National legislation, like the NCLB Act, and state legislation, like Michigan's Ed YES! represent how legislation shapes education policy. These legislative measures have provided clearer standards of achievement that are expected of every child. To paraphrase President Bush, one year of education should equal one year of academic growth. These standards of achievement have provided the opportunity for public discussion, often through the judicial process, for questioning who is responsible for funding public education and whether the level of funding is sufficient for students to meet the standards. Behind these two questions comes the quiet whisper of many politicians who wonder if any amount of money would really help "those" students in poor rural and urban areas achieve academic success.

How public education is funded has always been one of the most pressing and volatile questions in the public policy arena. For most of the United States' history, public education has been funded by local communities through local property taxes, (Biddle & Berliner, 2003), and therefore, local communities controlled the education of their children. In recent history this has changed, and many states, like the state of Michigan, have funding

formulas in which the money is collected into one *pool* and then distributed by the state. In Michigan this has provided some equalization in the amount schools receive per student; however, a gap still exists. Before *Proposal A* was passed in 1994, some school districts received more than three times what the lowest funded schools received per student (Michigan Department of Treasury, Office of Revenue and Tax Analysis, 2002). By 2004, this number was approximately two to one. Although an improvement, it still shows a disparity between higher funded and lower funded school districts. A review of the school districts in Michigan shows that schools in high-property-value areas, like the suburbs of Detroit and Grand Rapids, receive more money. The questions of whether or not states should provide equal funding for school districts and/or whether or not a child's home address should determine how much money is spent on his or her education is at the heart of the public policy debate on school funding equity.

Senator Wayne Kuipers, the Republican Chair of the Michigan Senate Education Committee, suggested at a 2004 conference designed to review funding practices in the state of Michigan that he has never heard how much money is enough for schools, only that schools "need more" (Kuipers, 2004). The senator's comment provides a glimpse into a second public policy debate on what constitutes adequate funding to provide all students the opportunity to reach the academic standards established by their state and approved by the federal government. This is a relevant public policy debate in Michigan because funding for public schools has been stagnant and healthcare and pension costs have increased. Do schools that receive the minimum amount of student-foundation-grant money from the state of Michigan provide sufficient funding to each student to ensure that he or she is able to achieve state standards at a satisfactory level? This is a difficult

question, and the answer most likely depends on the particular political party, special interest group, or community that is answering it. Regardless of the answer, the data and the rationale should be examined to determine whether or not the amount currently being provided by the state of Michigan for schools is *adequate*.

A third public policy question that is often masked in different ways is whether or not additional revenues are in any way connected to increased opportunities for students. In real-life terms, if a school district receives more money per student, is that money used for fertilizer to keep the football field green or to allow for smaller class sizes in grades K-3? Are special reading programs (especially in lower elementary grades), advanced placement/honor classes, foreign languages courses, music, and art opportunities being made available? Are there more athletic opportunities? Are school districts employing more teachers with Master's degrees and supporting continued teacher learning? Each of these enhances the learning opportunities for students and should be considered when the amount of money provided for schools is reviewed in public policy discussions.

Current public policy arguments focus on the nature of the state's involvement in funding public schools. Are current provisions sufficient to enable students to meet academic standards? Would additional revenue enhance learning opportunities for students?

Description of the Problem

A major public policy problem is the inherent lack of fairness between districts in the state of Michigan when it comes to funding. Inequitable funding means that different school districts have different opportunities made available to them, which can then lead to

substantially different academic outcomes. This situation provides the problem that is the focus of this study: Is it appropriate to expect that all students will have similar achievement outcomes and learning experiences regardless of the school they attend? In a literal sense, is a student's zip code the main determinant in the likelihood of their academic achievement and opportunity to experience valid learning experiences?

This study purposely looks at school district funding while ignoring the socioeconomic status of the students and their families. Regardless of a student's background, race, religion or financial situation, each child in the state of Michigan is held to the same academic standards. Regardless of a student's background, race, religion, or financial situation, each child in the state of Michigan should be provided the opportunity to participate in a variety of learning experiences. Especially provided should be those learning experiences that have been shown through research to improve student academic achievement and increase the possibility of student's growing to be a productive, positive member of society.

The difference in funding becomes a concern for those attending and living in the community where the school district receives less money. Every parent wants a quality education for his/her children with quality learning opportunities that prepare children for future success. It would seem reasonable that a quality education with value-added learning opportunities would give children the best opportunity of becoming informed, responsible citizens, as well as of acquiring essential employment skills for their chosen careers. Standards of academic achievement are the same for all students in the state of Michigan regardless of their funding level. Although the two districts in this study have somewhat similar demographics, it is easily recognized that students in the state of Michigan come

from different cultural backgrounds and socioeconomic statuses, which is related to the community they live in. It would be reasonable that a child living in a lower income area in the Upper Peninsula would have had a very different background and learning experiences than a third-grade child living on the west side of Grand Rapids or a child living in a suburb outside of Detroit with high median wages and land values.

Although the passage of *Proposal A* in 1994 decreased the difference in the amount schools receive per student, a review of *Bulletin 1014*, which is a summary of school district revenues in the state of Michigan from all funding sources, shows that the state of Michigan provides more money to school districts in higher socioeconomic areas. For example, Detroit Public Schools was guaranteed to receive \$7,100 per student for its grant allowance in the 2002 fiscal year. Bloomfield Hills, a wealthy suburb outside of Detroit, received an 11,135-dollar per-student grant in the same fiscal year. This was a difference of \$4,035 more per pupil annually for Bloomfield Hills. Ideally, it would seem that schools in poor urban areas, such as Detroit, would receive the same if not more funds per student to provide students the opportunity to achieve the state of Michigan academic standards and to be involved in numerous learning opportunities. In reality, however, all public school districts in Michigan are required to compete as equals even though they are not.

Purpose of the Study

The purpose of this study is to compare two districts with somewhat similar demographics but dissimilar revenues to see whether or not additional funding per child resulted in enhanced learning opportunities for the students in the higher funded district. To investigate this problem, two districts with dissimilar revenues were analyzed to determine

how they allocated funds for student learning opportunities. These opportunities included the following: (a) K-3 class size; (b) special reading programs, especially in lower elementary; (c) advanced placement/honor classes; (d) foreign language courses; (e) music, art, and athletics; and (f) continued teacher learning. Both school districts had enrollments of fewer than 1,000 students and somewhat similar demographics, as defined by the U.S. Census Bureau. Fiscal year 2002-2003 revenue sources for both school districts came from local, state, and federal sources. The per-student foundation grant difference between the two districts was \$1,406. On the basis of enrollment during the 2002-2003 school year, one district received an additional \$1,037,628. This substantial difference in funding is examined to discern its impact through the previously listed student learning opportunities. This information could be especially helpful considering the lethargic economy of Michigan over the past few years and its negative effect on school funding. Tom Watkins, former State Superintendent of Michigan, stated that “extraordinary and difficult programmatic and fiscal decisions are being made focused on a moral obligation to provide each child with the quality education they deserve to thrive in the 21st century, global, knowledge economy” (Watkins, 2004, p. 5). In essence, the purpose of this study is to examine how a higher funded district spends its money and whether or not its expenditures were for things that enhance learning, such as class size, rigorous academic courses, and school-related opportunities. If additional money is spent on these things, it might also be reflected in higher student achievement scores.

Significance of the Study

Some economists have published studies that suggested that school funding does not affect student achievement. Foremost in promoting this argument is Erik Hanushek, an economist from Stanford University, who stated that “the nation has been spending more and more to achieve results that are not better and perhaps worse” (1994a, p. 210). Jonathan Klick (2000) also supported this notion in his study of expenditures and test scores in Pennsylvania Public Schools. Klick’s study suggested that “poverty, without fail, proved to be a significant determinant of whether or not a student will succeed in school” (2000, p. 85). But following Hanushek’s statements about public schools’ being “too expensive, too rigid, too elitist and too unequal” (1994a, p. A17), Klick surmised that more money for poor Pennsylvania schools would not help students achieve academic success. Klick stated that “as things stand now, it is likely that any extra money will not have an appreciable effect on helping students achieve” (2000, p. 86). Therefore, the true significance of this study is to help determine whether or not additional money is used to fund additional learning opportunities for children or whether or not additional funding is simply spent for purposes not related to instruction and learning.

The two districts studied have similar demographics but are funded at different levels. Because they have similar demographics, it would seem that both districts would have had a similar tax base before the passage of Proposal A. However, the higher funded district is located on the Lake Michigan coast. This provided additional tax revenues and is the reason for the discrepancy. This moves the focus from the collective socioeconomic status of a school district and its MEAP scores to the comparison of what happens when similar districts receive dissimilar revenues. This could be significant if a possible

relationship is seen between the funding of a school and its standardized test scores. Although this study did not quantify the amount of money public schools need to adequately educate children or disprove the studies published by Hanushek and Klick, it does provide reasons to believe that money does in fact have an important effect on a school district's ability to provide educational opportunities and promote student achievement.

Definition of Terms

Several terms are used consistently throughout this study. These terms below serve as operational definitions of the characteristics included in the writing of this study.

1. *Adequacy*: Adequacy in educational funding refers to the amount of money necessary to implement programs so that students can achieve proficient test scores on state tests such as the MEAP (Odden, 2000; Farrace, 2003).
2. *Equity*: Equity focuses on how public funds are distributed between school districts in terms of their fairness to students. Because school districts have historically been supported by local property taxes, the amount of money available to schools was based upon their land values. Therefore, school funding between districts varies significantly.
3. *Academic Standards*: Academic standards refers to specific descriptions from state education departments that provide schools, teachers, and parents with the detailed information they need to understand what students are expected to know and be able to do at the end of each grade or school level.

4. *Revenue, All Sources*: Revenue, all sources, includes revenues from local, state, federal, and intermediate units of government (e.g., county), as well as incoming transfers and other transactions (Michigan Department of Education, 2002-2003a).
5. *Instruction Expenditure*: Instruction expenditure has to do with the cost of activities dealing directly with the teaching of students in the classroom or in a classroom situation. This does not include capital outlay expenses. It does include the total classroom instructional salary and fringe benefit costs for classroom instructional personnel (Michigan Department of Education, 2002-2003b).
6. *Support Service Expenditures*: Support service expenditures refers to the cost of activities that provide administrative, technical, and logistical support for facilitating and enhancing instruction. This does not include capital outlay expenses. It does include business and administration, operations and maintenance, and transportation expenses (Michigan Department of Education, 2002-2003a).
7. *Current Operating Expenditures*: Current operating expenditures refers to the total of instructional and support services expenditures. It is a descriptive heading under which are grouped all general fund expenditures of the current year that are used to educate elementary/secondary students. These expenditures do not include capital outlay or community services (Michigan Department of Education, 2002-2003a).
8. *General Fund Expenditures*: General fund expenditures is a descriptive heading under which are grouped all accounts for operating a school district. These activities include current operating expenditures, community services, and capital outlay (Michigan Department of Education, 2002-2003b).

9. *Optimum K-3 Class Size*: Generally, optimum K-3 class size refers to classes with 15 students to 1 teacher. This is not the same as teacher ratio, which simply divides the number of students by the number of certified staff in a building.

Limitations of the Study

The limitations acknowledged in this study include the following:

1. The school districts in this study are small and located in the same Michigan county. This may inhibit applying what was learned in this study to other dissimilarly funded school districts in the state of Michigan.
2. The time frame used for this study is only a snapshot of the budget history for both districts. It does not identify past budget decisions made in the districts, nor does it contemplate what effect the fiscal year 2002-2003 budget may have had on future learning opportunities and student achievement.
3. School budgets are continually being altered because of unforeseen costs, such as the increase in water and sewer rates for one of the districts beginning in the 2002-2003 fiscal year. It is possible that either or both of the schools' budgets will not be fully representative of expenditures during the 2002-2003 fiscal year.

Delimitations of the Study

The delimitations acknowledged in this study include the following:

1. The districts were purposely chosen for this research project because they fit the criteria of being districts with the following characteristics: (a) a similarly sized student population, (b) geographical proximity, (c) similar demographics as defined

- by the U.S. Census Bureau, and (d) what appears to be a substantial difference in revenues.
2. This research project was not longitudinal. The purpose of this study was to demonstrate in the 2002-2003 fiscal year how per-student funding affects two districts and their abilities to help students achieve academic standards and the abilities of the districts to enhance learning opportunities.

Organization of the Document

The remainder of this study is organized as follows. Chapter 2 reviews the literature related to the history of public school funding, the way in which appropriate levels of funding for public schools are determined by public policy, the role of value-added learning opportunities in education, arguments for equity and adequacy, and the courts' involvement in school funding. Chapter 3 describes the research design for this study, justification of and description of the methodology for selecting the sample school districts, and the data collection process. Chapter 4 presents the data and analysis of that information. Chapter 5 contains a summary of the results, discussion, recommendations for further research, and recommendations for further practice and public policy.

Conclusion

This study was conducted in order to question and examine the relationship between funding levels and the abilities of two dissimilarly funded school districts to enhance learning opportunities. The specific learning opportunities looked for were as follows: (a) K-3class size; (b) special reading programs, especially in lower elementary; (c)

advanced placement/honor classes; (d) foreign language courses; (e) music, art, and athletics; and (f) continued teacher learning.

CHAPTER 2: REVIEW OF RELATED LITERATURE

The purpose of this study was to explore two districts with similar demographics but dissimilar revenues to see if there is a relationship between how much money a district receives and its ability to enhance learning opportunities. The specific learning opportunities looked for were as follows: (a) K-3 class size; (b) special reading programs, especially in lower elementary; (c) advanced placement/honor classes; (d) foreign language courses; (e) music, art, and athletics; and (f) continued teacher learning. There is a great deal of literature on the topic of school funding and on the benefits of enhanced learning opportunities. Providing enhanced learning opportunities costs money. Some argue that more money should be spent on education, whereas others argue that the current amount of money provided to schools is already excessive.

The question of whether or not money makes a difference in student achievement has not been answered definitively (or at least not universally acknowledged) because funds are only one factor considered when student achievement is being assessed. Two difficulties in investigating school funding are that it is impossible to eliminate every variable that potentially influences student achievement and that the uniqueness of every school district and community make direct comparisons difficult. Students' backgrounds, interests, family dynamics, school experiences, and motivation are different in each community within the state of Michigan. But possibly the greatest difficulty in investigating school funding and its relationship to student achievement is that school funding is highly political. School funding affects every person's bank account. Possibly because of its highly political nature, studies in school funding do not lend themselves to decisive conclusions. It is stated that either money does make a difference or that it does

not make a difference in helping to provide a quality education for children. There seems to be no middle ground between those who favor increasing funding for public schools and those who believe that more money is already being spent to fund public education than is needed.

This literature review is divided into five parts. Part one describes the importance of providing enhanced learning opportunities for students and how these opportunities appear to increase many measures of academic achievement. Part two introduces the concepts of equity and adequacy in school funding. Part three explains the argument for equity and how it has been argued in the court system. Part four explains the relatively new concept of adequacy in school funding and its fairly recent successes in the court system. Part five summarizes the literature relative to school funding.

Enhancing Learning Opportunities

More needs to be known about how districts with larger per-student grants choose to spend their additional money and whether these choices enable them to purchase things that educational research suggests may enhance learning opportunities. Leighton (National Center for Educational Statistics, 1994) provided a broad definition of “opportunity to learn,” or what this researcher terms enhancing learning opportunities, by stating that they are “a combination of curriculum content, instruction and resources” (p. 17). The specific learning opportunities looked for were as follows: (a) K-3 class size (Achilles, 2002; Finn & Achilles, 1990 and 1999); (b) special reading programs, especially in the lower elementary grades (Wray, Medwell, Fox & Poulson, 1999); (c) advanced placement/honor classes

(Santoli, 2002); (d) foreign language programs (Cutshall, 2005); (e) music, art, and athletic programs (Coltin, 1999); and (f) continued teacher training (Darling-Hammond, 2000).

Special Reading Support

It could be argued that the greatest responsibility of every school district is to teach children to read. Reading is the foundation for all learning. It is as necessary for the auto mechanic as it is for the zoologist. Contributing members of society share the ability to read at least at a functional level. The importance of reading for future success in all areas of life should be reflected in a school district's provision for teaching reading, especially for new and struggling readers.

Kinnucan-Welsch, Magill and Dean (1999) stated that there is "extensive research suggesting that successful early intervention programs for struggling readers and writers offer greatest benefit to children and are ultimately cost-effective for school districts" (p. 3). This research is important because it demonstrates that early intervention for struggling readers not only benefits the recipients, it is a way for schools to effectively use their funding.

Correctly determining which students qualify for secondary reading support and monitoring their growth is crucial in providing a cost-effective, manageable, and sustainable program. Speece (2005) stated the following:

Attention to growth may net more accurate screening results than have been apparent in the long history of early identification research. Instead of relying solely on measures administered at one time point, including a measure of children's

growth or responsiveness may add an important dimension to the screening equation and provide a clearer view of who may require secondary intervention. (p. 487)

Assessment is an important part of any reading program. Providing services for a student who does not truly need the additional support is a poor use of funds. School districts that assist struggling emergent readers must also provide the data that demonstrate that those students selected are really in need.

Assessing student reading, especially in the early elementary years (kindergarten and first grade), may benefit the financial bottom line for school districts, but most important, early detection of a reading disability in a student may allow the student to receive help without being identified as a special education student. O'Connor, Harty, and Fulmer (2005) stated that "children who might benefit from early intervention needed to be identified in Kindergarten or first grade, much earlier than is common within systems of special education" (p. 532). Although there are up-front costs in identifying struggling readers in kindergarten and first grade and then providing research-based interventions, the savings come from assisting these students when they are identified in third or fourth grade as needing special education services. And if intensive interventions are not done when students begin learning to read, it may take several years for students to exit from special education services if they ever do.

There are many early-intervention strategies for reading that have been shown to be effective and are research based. The state of Michigan promotes the *Michigan Literacy Progress Profile* (MLPP) program (See <http://www.mlpp-msl.net/>). This program is research based and specific in its directions and applications for teachers; it also provides

for regular assessments and charts a reader's growth. *Reading Recovery* is another program designed to help emerging readers who are struggling. Kinnucan-Welsch et al. (1999) stated the following about the *Reading Recovery* program: "The program is designed to support children in a one-to-one instructional environment where the Reading Recovery teacher purposefully scaffolds each child in the use of cues and strategies as part of the reading process" (p. 4).

Reading Express is a program that incorporates the reading-recovery teacher into the first-grade classroom. This provides opportunities for entire classroom instruction, as well as small-group instruction. A benefit of the *Reading Express* program is that it supports all children in the classroom to improve their reading ability, not just those who are struggling or most at risk for failure in reading.

Regardless of the early-reading intervention program chosen by a school, it will not be successful if it is not uniformly implemented. A school that simply relies upon each early elementary teacher to provide whole-group and individual instruction for struggling readers or is using a reading-support system that is not research based, puts its students at a decided disadvantage.

Beyond providing early-intervention programs for struggling readers, schools should approach reading with a balanced method that includes phonics instruction and focuses on enhancing the characteristics of effective classrooms. O'Connor et al. (2005) stated that a "collection of experiments suggested that phoneme awareness could be taught to children who did not acquire it naturally, and that doing so generated small but reliable effects on reading words" (p. 532). These are powerful words that support the notion that

phonics, direct reading instruction, and the classroom environment can effectively assist students in learning how to read.

The education world has seemingly bounced between the philosophy of teaching students to read using a whole-language approach and the approach of recognizing phonemes. Reading research is now showing that a balanced approach that incorporates both whole-language and phonics instruction is necessary. An approach that Dombey (1999) described as “a balanced approach to phonics introduces children to the logic of our spelling system in stages, taking account of what they know and can do. It also invites them to play an active part in this learning, encouraging them to draw inferences, see patterns and make connections for themselves” (p. 56). This approach shows students the connection between the sounds that make up words and how these words convey meaning. This dynamic in teaching reading through whole language and phonics is only possible when the teacher is well trained and knowledgeable in reading instruction. The ability to weave and balance these ideas into learning activities takes time and skill. It also takes materials, and if the reading instruction materials are old, individual teachers may be burdened to create their own teaching resources. For balanced instruction to be possible, teachers must have the necessary materials and the necessary knowledge. As Dombey stated, “Children taught in this way will not just have acquired a richer experience of literacy, they will also have acquired a richer experience of learning—one that gives them confidence in their own powers of working things out for themselves” (p. 57).

In their research on effective teachers of literacy, Wray et al. (1999) discovered three main environmental characteristics in classrooms: presence, function, and use by children. In the classrooms of effective teachers of literacy, children were provided

multiple opportunities to use “functions of literacy” (Wray et al., 1999, p. 19). Wray et al. went on to state the following about these classrooms:

These classes featured resources such as alphabet friezes, word banks, displays of books at an appropriate age level, displays of books related to the topic under consideration, listening centers, reference books, reading scheme books, language master machines, word games and computers. (p. 20)

These classrooms provide an environment where students are immersed and required to use and practice their literacy skills.

In part, children are motivated to learn because it is a practical skill that leads to independence. Effective teachers of literacy use this to their advantage and make literacy a functional part of the classroom. Wray et al. (1999) stated, “The classes were labeled with the names of areas, drawers and containers, and instructions for looking up words, revising text, editing text, selecting books, changing library books, using dictionaries, and using mnemonics” (p. 20). These opportunities, linked to specific functions, provide learning experiences for students outside of the formal teaching time for reading. They also demonstrate to students that reading is an integral part of their life and always will be.

Finally, Wray et al. (1999) stated this about the presence of effective teachers of literacy: “The effective teachers were regularly observed directing children’s attention to the items around their classrooms and using them as a support strategy for particular groups of children undertaking tasks” (p. 21). It is not enough to immerse students in an environment of literacy and then expect them to automatically use the available resources. Teachers must be present and intentional in their introduction, modeling, and guiding of

students in classroom environment. The continued guidance of the teacher is the catalyst for the effectiveness of a classroom full of literacy resources and function.

In summary, it can be argued that teaching reading is the first priority of a school district. Assisting struggling readers earlier rather than later is best for children and provides long-term savings for the school district. Assessing students who qualify for secondary reading services is paramount to maintaining viable reading programs. And although there are many available programs, the effective programs are research based and have a balanced approach, incorporating phonics and whole language (or reading comprehension strategies). And finally, all of the former prerequisites must occur in a classroom with a highly trained teacher in a classroom that promotes the functional use of literacy skills in the classroom.

Teaching of Foreign Language

The American Council on the Teaching of Foreign Languages (ACTFL) sponsored a national public awareness campaign called 2005: The Year of the Languages. The hope of the ACTFL was that this campaign would “put language in the spotlight and engage in a fruitful national conversation about the relationship between Americans and foreign language learning” (Cutshall, 2005, p. 23). According to the ACTFL, the goal of every American should be to know at least one language other than English.

Why does the ACTFL believe Americans should be proficient in another language? Cutshall (2005) stated the following:

Multilingualism carries many benefits. Individuals who speak, read, and understand more than one language can communicate with more people, read more literature, and benefit more fully from travel to other countries. Further, people who

communicate in at least two languages are a great asset to the communities they live and work in. (p. 21)

The ACTFL's assertion is supported by Grittner (1991), who stated the following benefits of Foreign Language study: (a) increased academic achievement in other areas of study, including Reading, Social Studies, and Mathematics; (b) higher SAT and ACT scores; (c) improved knowledge of Geography; (d) enhanced career opportunities, and (e) flexibility in thinking processes through problem solving, conceptualizing, and reasoning" (p. 43). Lantolf and Sunderman (2001) asserted that "foreign language study enhances intercultural understanding, and promotes tolerance of racial, ethnic, and religious diversity" (p. 6). Cooper (1999) also supported the notion that foreign language study improves student thinking. Lantolf and Sunderman (2001) reported that Cooper's study suggested the following: "His study found significant correlations between improved SAT verbal scores and language study among high school students" (p. 9). The research strongly suggests that foreign language study has many long-term benefits.

The numerous benefits demonstrate that providing foreign language instruction should be a priority for every school district. Although the research (Cutshall, 2005) showed that students should begin learning a foreign language in elementary school, minimally, foreign language courses at the high school level should offer the traditional method even though it is less effective. It would seem reasonable that a district could not be described as providing an adequate education for its students without offering foreign language courses. And districts providing foreign language instruction at the elementary level could be described as spending its funding wisely on the basis of research, while looking forward to equipping its students to be successful in the twenty-first century.

Although student learning and future success are compelling reasons for a school district to provide foreign language instruction, there are national safety and utilitarian reasons for promoting foreign language study. Lantolf and Sunderman (2001) stated the following:

With the launch of Sputnik the pendulum began to swing yet again toward the purely military and national security justification Three years after Sputnik, 73% of the public schools offered foreign language courses and 87% of post-secondary schools required language study for the B.A. degree. (p. 8)

The Sputnik of our current time may have been the 2001 terrorist attack on New York City. A review of the FBI and CIA websites shows job opportunities for individuals who speak Arabic languages. There are other hot spots around the globe that could make use of individuals who speak Korean and Chinese to assist with national security. In part, the security of our nation depends on the knowledge and use of foreign languages.

The learning of foreign languages enhances the utilitarian ideal of educating all children. Lantolf and Sunderman (2001) stated the following:

Although the number of immigrants to the United States following WWII was nowhere near the numbers that immediately preceded and followed WWI, the country continued to become linguistically more diverse. Thus, the practical skill of communication with one's neighbor, whether at home or abroad, was becoming more necessary. The utilitarian arguments for foreign language study gained favor over time as the educationists' drive to build a school system whose exclusive aim was to serve the practical needs of the individual and of the society gained ground. (p. 9)

This focus for education continues as the world marketplace continues to shrink and commerce between nations continues to move the global economy forward. Knowledge of foreign languages (and customs) is fast becoming a required skill.

In summary, school districts that provide foreign language study, especially in the elementary grades, are giving their students the opportunity to expand their academic skills while promoting understanding of other nations and cultures. Foreign language study also has national defense and utilitarian aspects that promote not only individual growth, but national and international benefits.

Advanced Placement Programs

In the current era of high-stakes tests like the ACT, SAT, and the MEAP test, it is imperative that students have the opportunity to participate in a rigorous curriculum. The November 2005 proposal by the Michigan Department of Education (MDE) to increase graduation requirements is a nonissue if school districts do not or cannot provide multiple and rigorous courses in Science, Math, English and Social Studies. For students with natural aptitudes, the challenging and in-depth courses represented by Advanced Placement (AP) especially could be the impetus for their future success. Van Tassel-Baska (1998) stated, “Another way that schools could demonstrate a commitment to academic excellence would be to institute the College Board Advanced Placement (AP) program in all disciplines” (p. 765).

Several studies that support AP courses exist. Columnist Bob Reising (2000) stated that the following studies should be read by all those involved in high school reform:

- *AP 1999 Yearbook: Access to Excellence* (Educational Testing Services & College Board, 1999a).

- *Reaching the Top: A Report of the National Task Force on Minority High Achievement* (Educational Testing Services & College Board, 1999b).

Reising (2000) stated that these studies demonstrate “that without at least four advanced placement (AP) course and examinations in a student’s background, her or she cannot hope to meet the demands of a reputable undergraduate program” (p. 188). Although these reports should not be viewed as independent, peer-reviewed research, they do provide supplemental and introductory reasons for school districts’ ensuring that they provide their high school students with multiple advanced placement course opportunities.

In economic terms, the necessity of education past high school is undeniable. High school diplomas no longer provide the foundation for a middle-class lifestyle. The new economy requires specific skills, knowledge, and the ability to continuously learn. The traditional comprehensive high school education does not produce these attributes in graduating students. To complicate the scenario, today’s students are now competing against students in fast-developing countries like India and China, where education, especially in Math and Science, is seen as vital to their continued development. These developments underscore the need to provide current high school students with a rigorous education that prepares them for higher education and future success. Two ways that high schools are now attempting to do this is through AP and IB (International Baccalaureate) courses. Lord (2000) stated the following:

In today’s competitive climate, taking AP and IB courses clearly give students a leg up. Just look at who gets in. Almost 90 percent of the freshmen at the California Institute of Technology in Pasadena have taken at least one AP class, for instance. The bias toward admitting candidates with AP or IB courses under their belts can

be especially strong at state schools with point-based admission systems. At the University of Michigan, which awards extra points for AP or IB courses when calculating an applicant's "selection index," such classes "absolutely are a positive factor," says spokesperson Janet Mendler. (p. 101)

In her extensive research, Santoli (2002) came to the following conclusion about AP courses:

Research information would seem to support AP advantages for students, teachers, schools and universities. Students benefit from high caliber and motivated teachers, can receive college credit for high school courses, and are better prepared for attending college. They pursue more challenging majors and are more likely to graduate from college. Students can save college tuition money with successful scores on AP exams and are not wasting time and money retaking courses they have already mastered. (p. 32)

In summary, it is evident that school districts that provide AP courses for their students are funding opportunities for their students that will pay off academically and economically. Advance Placement courses are more likely to have competent and motivated teachers who will provide students with the rigorous curriculum necessary for students to pass the end-of-the-course exams. Further, students who pass the exams earn college credit, which decreases the expense of their post-high school education by minimizing its length.

Small Class Sizes

Extensive research has been done in the area of class size and its effect on student achievement. The most notable study in class size was conducted in the state of Tennessee.

Project STAR (Student Teacher Achievement Ratio) was a longitudinal study completed between 1984 and 1990 that showed several positive effects on student achievement when students were in small classes (13-17) from kindergarten through third grade. Finn and Achilles (1999), principal investigators for *Project STAR*, stated the following:

In subsidiary studies drawing on STAR data, we have found that, compared to larger classes, small classes ameliorate the effects of large schools; fewer students are held back a grade; while small classes benefit all students, minority students benefit the most; students receive more individual attention; smaller classes are friendlier and more intimate; there are fewer discipline problems in smaller classes and students are more likely to participate in activities. (p. 97)

Achilles' remarks were supported by Jeremy Finn (2002), who stated the following:

That Project STAR was a controlled experiment has been widely recognized by educational researchers, sociologists, economists, and statisticians, including the distinguished Frederick Mosteller, who wrote that STAR was a "controlled experiment which is one of the most important educational investigations ever carried out." (p. 227)

The *Project STAR* research demonstrated that schools that receive more funds per student would be wise to invest them in smaller class sizes in grades K-3. By doing so, schools would reap many benefits, but most important in the age of accountability, higher test scores.

Highly Qualified Teachers

Teacher pay and student achievement have not been shown to be synonymous in educational research. However, there is research that shows that teacher competency

directly affects student achievement. Darling-Hammond (2000) stated, “Recent studies of teacher effects at the classroom level using the Tennessee Value-Added Assessment System and a similar database in Dallas, Texas, have found that differential teacher effectiveness is a strong determinant of differences in student learning” (p. 2). One of the ways that teachers demonstrate competency is by having attained a master’s degree.

Darling-Hammond (2000) also stated, “Fourth-grade students of teachers who were fully certified, who had master’s degrees, and who had had professional coursework in literature-based instruction did better than other students on reading assessments” (p. 6).

Darling-Hammond went on and stated the following:

Other studies have found that students achieve at higher levels and are less likely to drop out when they are taught by teachers with certification in their teaching field, by those with master’s degrees, and by those enrolled in graduate studies. (p. 6)

The correlation between teacher effectiveness and student learning cannot be over-emphasized. On the basis of statements of Darling-Hammond, researchers Berry, Hoke, and Hirsch (2004) stated the following:

The research literature on teacher quality—taken as a whole—sends a strong message to policy makers and practitioners that teachers need to know their subject matter and how to teach it. The demands on our public schools clearly require all teachers to know a great deal about how humans learn and how to manage the complexity of the learning process. Today this means knowing how to manage classrooms, develop standards-based lessons, assess student work fairly and appropriately, work with special-needs students and English-language learners, and use technology to bring curriculum to life for the many students who lack

motivation. These skills can be readily learned through effective teacher education, induction, and professional development experiences, and new research shows that teachers who are better prepared to meet such varied challenges are more likely to remain in teaching. (p. 689)

It would be reasonable to suggest that these skills would be learned, at least to some degree, by completing a master's degree in the field of education. From the research, it is clear that schools that hire and/or reward teachers for obtaining a master's degree, and possibly even assist with tuition costs, are making an investment that will likely enhance student achievement.

Fine Arts and Athletics During and Outside of the School Day

Kunzman felt that music, art, and athletics should be seen as more than just extracurricular activities. They should be seen as a necessary means of enhancing learning. Kunzman (2002) stated the following:

Extracurricular activities can offer adolescents a vision of self that entails commitment, belongingness, and passion. In some ways, the very term extracurricular connotes an add-on function, something not vital. Perhaps we need a new name to remind us of the value of such endeavors and the pedagogical relationships they foster. (p. 21)

Until a new term is introduced, *extracurricular* will have to encompass and describe activities in music, art, and athletics that occur outside of the school day. These activities enhance academic learning as well as individual emotional development and the learning of society's values of fair play and respect. Although a definitive connection between extracurricular activities and academic achievement has not always shown a

positive correlation in the research, Heath (2001) suggested that “almost nothing is known about the learning—cognitive and situative—that actually goes on beyond classroom hours on sports teams, in community organizations, or through voluntary community service” (p. 10). It may be reasonable to look at the past research in noncore enhanced learning opportunities and the lack of positive correlation between athletics and academic achievement (Stegman, 2000) and realize that it is possible that noncore enhanced learning opportunities provide more for students than the possibility of higher standardized test scores and grade point averages. Uptis (2003) stated the following:

Music—like the other arts—does indeed, brighten up the mind. And the arts brighten up other parts of our existence as well—the emotional, physical, social and even spiritual aspects of our learning and our humanity. Both the students and adults involved in the research recognized that the arts have this power, and that arts education deserves a central place in schooling. (p. 27)

Another example was provided by Cosden (2004) when he stated, “Of particular importance, students at risk for school failure appear to benefit even more from participation in extracurricular activities than do children who are normal achievers” (p. 223). This is supported by Heath (2001), who stated that the power of dance “for these groups appears to reside in the interpersonal bonding and equitable spread of challenge to exhibit discipline and skill, as well as in the mutual engagement in portraying by nonverbal means ideas that cannot be expressed verbally” (p. 17). This is of particular importance in this research project because both school districts involved have at least 18% of their student bodies receiving free or reduced-priced lunch—a relationship that has been shown as a negative factor in school achievement.

In addition to the possible academic achievement gains and positive life development gained by participation in enhanced learning opportunities, Coltin (1999) stated the following:

The theory of multiple intelligences developed by Gardner (1993) broadens our view of how humans learn and realize their potential. Classroom instruction focuses chiefly on logical/mathematical intelligences. By tapping into the underutilized intelligences such as musical intelligence, extracurricular activities can encourage the development of skills and interests not fully nurtured during the school day. (p. 1)

When children are given the opportunity to use their natural talents and intelligences and succeed, positive feelings occur. Most educators can point out the student who may not excel in the classroom but is the lead character in the school play or is picked first for teams at recess or thrives when using a computer. Gilman (2001) stated the following:

The present study found that adolescents who participated in a greater number of SEAs [structured extracurricular activities] reported significantly higher school satisfaction than adolescents with minimal or no participation in such activities. This was an expected finding and supported by Marsh's "Commitment to School" hypotheses (1991), in which participation in SEAs is assumed to facilitate the total academic development of the student. (p. 757)

Although it can be argued that high school athletics have become an unhealthy obsession that drain resources that would otherwise be used for academic purposes, there are irrefutable benefits for students who are involved in individual and team athletic

endeavors. The *Journal of the School Health* reported on a statewide survey conducted by the Minnesota Department of Children, Families, and Learning that showed that participants in any type of extracurricular activity “were significantly more likely than nonparticipants to exercise and consume nutritious foods, to like school and do homework, and to express positive attitudes about self, peers, teachers and parents” (Minnesota Department of Children, Families, and Learning, 2003, p. 113). From the survey, the Minnesota Department of Children, Families, and Learning concluded that “school sports participation is associated with physical and mental health benefits, and participation in other extracurricular activities is associated with other psychosocial benefits as well” (p. 120). This information supports the general belief that routine physical exercise assists individuals in maintaining a positive outlook on life.

In an era of limited funds, schools are continually looking for areas to eliminate from the budget. Often behind the excuse and philosophy “Back to the Basics,” school districts eliminate music and art education. Opportunities in art, music, and physical education are important for students to experience as parts of the school program.

Demorest and Morrison (2000) stated the following:

For example, one piece of evidence that can be gleaned from the available data is that music participation does not interfere with academic progress. Students in music pull-out programs and those with greater years spent in arts education maintain a higher than average level of academic achievement. This is a direct contradiction to the “back to basics” mentality that views music and other arts as frills that distract students from more important subjects. Whether or not music increases children’s brainpower, it clearly doesn’t hurt it. Thus, the path to

academic excellence would seem to involve multiple avenues rather than the single road of reading, writing, and arithmetic. Research also strongly supports the contention that all humans are musical and can develop their musicianship. MENC's 1922 credo of "Music for every child, every child for music" might simply be shortened to "Every child is musical." Research in neurology has demonstrated that all human beings are born with musical brains. As ethnomusicologist John Blacking observed, "There is so much music in the world that it is reasonable to suppose that music, like language, and possibly religion, is a species-specific trait of man." What this means is that musical achievement is directly tied to the availability of a quality education in music and to hard work rather than to a predetermined amount of talent. (p. 39)

Although DeMorest and Morrison do not subscribe to the notion that teaching music will increase standardized test scores, their balanced synthesis of the research supports the ideas that all students have musical ability, that music may help and certainly will not limit students' core academic achievement, and that there is irrefutable evidence that students who participate in music have higher standardized test scores.

In summary, extracurricular activities enhance student learning through improving physical, emotional, and mental well-being. This is accomplished through physical activity, being a member of a group or team, and working toward a goal. These benefits seem to benefit academic performance regardless whether a student is involved in the arts, music, and/or athletics. West (2000) stated the following about art education:

Teaching the arts is much more than just having students paint a pretty picture or make nice-sounding noises. Art education is much more than the production of nice

things. We, the fine arts teachers, are teaching problem-solving skills daily. When we teach color theory, we are teaching something that students will take with them and use throughout their lives. Art education expands our creative, perceptive, interpretive, and analytical intelligence.

Many people do not associate the arts with "thinking." They are aware of the art product--that is, the song, the picture, the play--but they are less aware of the process that creates the product. The arts are not so much a result of inspiration and talent as they are of a person's capacities for creative thinking, critical judgment, imagining, problem solving, and numerous other mental processes. (pp. 177–178)

When viewed in this manner, it is reasonable to see fine arts education as an integral, relevant and necessary part of every child's education. At the current rate of new knowledge and technology in the global economy, the abilities to think, plan, and adapt will be paramount for individual and societal success.

In summary, fine arts education and extracurricular activities are not nonessential ancillaries in a child's education. They are instrumental in developing the whole child. There is research that does demonstrate that students who are involved in these types of activities perform better on standardized tests, are healthier, are more emotionally grounded, and are generally happier. It is reasonable to suggest that school districts that do not provide these opportunities are putting their students in a position to be less successful in their academics and possibly limiting their future success.

Summary of Enhanced Learning Opportunities

The literature review completed in the areas of class size, reading intervention programs, extracurricular activities, advanced placement courses, and highly qualified teachers essentially suggests that districts that provide these specific opportunities may enhance the learning provided to their students. And enhanced learning may very well mean higher academic achievement.

Introduction of Equity and Adequacy in School Funding

Equity and adequacy are separate but related concepts. In essence, “it is important to see adequacy rooted in concerns about equity” (Clune, 2001, p. 2). Clune (2001) further connected the concepts of equity and adequacy by stating the following:

[Does] adequacy represent a break with the past of equity litigation? I think not.

Adequacy and equity are both based on principles of equity in the general sense because both respond to unfair discrepancies in educational services based on some kind of political discrimination. (p. 8)

In the current literature, equity and adequacy have become more distinct in what they represent and how they are understood in regard to funding public education (Odden, 1995, 2000; Odden & Picus, 2004). Equity is often correlated with specific dollars and programs, whereas adequacy has come to mean that all students have the necessary resources to meet academic standards. This has clearly moved the debate in public education from equity to adequacy. According to Odden (2003),

[Although we have been] long focused on fiscal equity, school finance is now shifting toward fiscal adequacy. And this shift represents a fundamental change: it

means that school finance today encompasses not only fiscal inputs but also their connection to educational programs, teacher compensation, and student achievement. (p. 120)

This shift represents a much broader understanding of financing public education. Instead of simply looking at a financial ledger, the adequacy argument compares financial inputs (resources) to educational outputs (achievement). The output primarily considered by policymakers (and the public at large) is student achievement in the form of standardized tests. Clune (2001) quoted Ladd, Chalk, and Hansen (1999) regarding the introduction of the adequacy argument in school funding when he said the following:

Spending disparities, especially those within states, have inspired education finance reform efforts for decades In recent years, however, questions about finance systems have increasingly been linked to questions about improving student performance One manifestation of this broader concern has been the emergence of the comparatively new legal paradigm of educational adequacy . . . and now serves as the foundation for many current court cases and deliberations. (pp. 1–2)

Equity and the Argument in the Courts

Inequity between schools, as explained earlier, is based upon the historical practice of funding schools through local property taxes. As Biddle and Berliner (2003) stated, “the American system generates large funding differences between wealthy and impoverished communities” (p. 2). Nationally, these differences can be alarmingly significant. Biddle and Berliner’s research showed the following:

American students, who live in wealthy communities or neighborhoods within states that have high levels of funding for public schools, are now attending public schools where funding is set at \$15,000 or more per student, per year, whereas other American students, who live in poor communities or neighborhoods within states that have low levels of funding, must make do with less than \$4,000 in per student funding in their schools for the year. (p. 3)

Despite any variables related to cost of living or arguments excusing differences in public school funding, an \$11,000 difference is to say the least, significant.

Equity, which is defined by the Merriam-Webster Online Dictionary (2006) as “Freedom from bias or favoritism,” is not possible when public school funding is substantially based on property values. In relation to school funding, equity has been divided into three parts: vertical, horizontal, and equal opportunity (Clune, 2002, p. 59). About vertical and horizontal funding, Clune (2001) said that “fairness can be defined in many ways—for example, as equality of dollars or resources for similarly situated students (horizontal equity), or as sufficient (and therefore not always equal) dollars or resources for students with different needs (vertical equity)” (p. 57). The third manner of considering the concept of equity, equal opportunity, relates to the fairness of the rules in distributing the funds and the fairness in actual spending (Berne & Stiefel, 1994). As will be seen later, the transition into the argument of adequacy has come through the concept of vertical equity. It is for this reason that many view the concept of adequate schooling as built upon the notion of equity and fairness.

Regardless of the disparity, school funding reformers have had very little success in closing the gap between wealthy and poor school districts through the court systems using

the argument of equity. Possibly the most notable court case regarding school funding equity was the Supreme Court decision in *San Antonio Independent School District v. Rodriguez*. This landmark decision closed the door on the potential for change through federal school finance litigation based on the concept of equity. Koski and Levin (2000) stated that “the high court ruled that despite the glaring disparity in funding between school districts in the San Antonio metropolitan area, the United States Constitution does not require that funding among school districts be equalized” (p. 480). This ruling turned attention away from the federal government and toward state governments for balancing school funding inequities. Many states responded by enacting measures to help offset the disparities in funding. However, Odden (2003) stated that “even though a state’s enacted equalization formula helped offset the disparities by sending higher amounts of state aid to poorer rather than wealthier districts, substantial per-pupil spending differences remained across school districts” (p. 25). Many of the additional funds for poorer districts were in the form of categorical grants. This was supported by Biddle and Berliner (2003), when they stated that “categorical grants more often go to school districts with less access to local funds, and this tends to reduce (but does not eliminate) inequities in total funding” (p. 4). As will be seen later, legislators did not begin to examine school funding inequities until the adequacy argument was brought to the state court systems.

Although school funding has historically been a local issue, we must question why the American public has allowed the great inequities in public school funding to continue. The practice of funding schools through local property taxes is not practiced in other first-world countries. Slavin (1999) stated the following:

To my knowledge, the U.S. is the only nation to fund elementary and secondary education based on local wealth. Other developed countries either equalize funding (across the state) or provide extra funding for individuals or groups felt to need it . . . exactly the opposite in the U.S., where lower-class and minority children typically receive less than middle-class white children. (p. 520)

Although uncomfortable and unflattering for the American public, school equity looks clearly to be a case of racial bias. Odden and Augenblich (2000) stated that “civil rights groups point out that minority students constitute a majority at many of the schools lacking adequate funding, services, or facilities” (p. 2). The evidence of disparities in funding in areas of minority students is unquestionable. Clune further supports the notion that school funding is racially biased by stating, “This kind of exclusion also represents implicit discrimination and violation of equity, because the state tolerates these sub-par outcomes in massive numbers of its least favored children whose minority status is reflected in minimal political representation and power” (p. 62).

In addition to racial discrimination, Biddle and Berliner (2003) suggested that “perhaps the simplest answer to this question [school funding inequity] is that some Americans are unaware of the problem, or think, perhaps, that inequities in school funding are small and ‘don’t matter’” (p. 6). This is certainly a plausible explanation, especially when considering the complexities in school funding that most Americans do not care to know or understand. It is also possible that people would prefer to believe that they are providing their share in supporting all schools sufficiently through the taxes that they pay.

Finally, inequities in school funding may be tolerated because of studies that say that money does not make a difference in student learning. Since the publication of the

Coleman Report, authored by Coleman, Campbell, Hobson, McPartland, Mood, Wiendfeld, and York (1966), some economists have postulated that additional funding does not improve student academic achievement regardless of how achievement is measured. Hanushek (1998) contended that the supposedly poor performance of public schools in the United States is to be blamed on the current organization of schools. He went on to state what he believes are the two basic flaws in the public school education system. “First, they [schools] have virtually no incentives to encourage better student performance—or to be concerned about costs The second basic problem is that schools make almost no effort to evaluate the success or failure of programs” (p. A17). Hanushek (1998) further stated that there isn’t “any reason to continue to pour even more money into schools given their current organization. Over the past quarter century, researchers have made the surprising discovery that there is little systematic relationship between school resources and student achievement” (p. 11). Hanushek is clearly against providing additional, equal, or adequate funding for schools. Hanushek’s (1994b, 1996, & 1998) recommendations included using vouchers, implementing new student evaluation means, contracting educational services to private firms, and providing performance incentives to teachers and principals. Hanushek’s (1994a) beliefs regarding how to improve public education are summed up in his following statement:

Reforming America’s schools does not require more money. On the contrary, the cause of reform will best be advanced by holding overall real spending constant. Schools must acquire the discipline imposed by economic efficiency. They must learn to consider tradeoffs among programs and operations. They must learn how to evaluate performance and eliminate programs that are not working. They must learn

to seek out and expand on productive incentive structures and organizational approaches. In short, they must make better use of existing resources. (p. 15)

Because Hanushek did not provide specific details on how schools should better use their resources, it is impossible to provide actual cost savings from his suggestions. It seems likely from his comments that Hanushek would assess programs only on the basis of a program's cost and its relationship to increased test scores. On this point, many educators may argue with Hanushek that public policy has created a broadening scope of responsibilities for schools, along with increased costs. A few of the many possible examples include special education, student safety measures, and increased paperwork. On this topic, Biddle and Berliner (2003) stated the following:

Recent legislative mandates and court decisions have created a host of new responsibilities for our schools designed to meet the needs of disadvantaged students—those with physical and mental handicaps, those from impoverished homes, those representing racial and ethnic minorities, those from immigrant families who do not speak English at home, those who are unruly and unmotivated, and the like—mandates that have often been underfunded but, taken together, have raised costs for public schools significantly. (p. 12)

The increase in school responsibilities through judicial, legislative, and parental pressure have taken the increases in school funds away from classroom instruction. In their research on where the increases in funds for schools between 1967 and 1991 were spent, Rothstein and Miles (1995) discovered the following: (a) 33% went to special education, (b) 8% went to dropout-prevention programs, (c) 8% went to school lunch programs, and

(d) 28% went to salary increases. This left relatively little money left over for programs and initiatives aimed at basic instruction.

Funding for public schools has basically doubled (when adjusted for inflation) since 1965 (Rothstein & Miles, 1995). As previously shown, most of these funds were spent for things other than basic instruction. Like economist Eric Hanushek, many would claim that the additional spending on schools did not provide any positive academic gains. Other researchers would vehemently disagree with the claims of individuals like Hanushek. In a complete rejection of Hanushek's conclusions in their review of current school funding research, Biddle and Berliner (2003) stated, "As a rule, such studies report that level of funding is tied to sizable net effects for student outcomes, but that those effects are smaller than those for level of advantage in the home or the community" (p. 10). Greenwald, Hedges, and Laine (1996) stated that "school resources are systematically related to student achievement and that those relations are large and educationally important" (p. 384). This information is important to this study, in which differences in academic achievement and value-added learning corresponded to the funding levels of the school districts.

How could there be such a great divide between those who have stated that money does not matter and those that say that funding is the second-most-important influence behind the child's family socioeconomic status? Biddle and Berliner (2003) contended that it is in the way previous research projects were conducted. For example, they stated the following regarding the *Coleman Report*:

Among other things, the report's authors had failed to use available scaling techniques to validate their procedures, had made mistakes when assigning indicators to major variables, and had failed to measure crucial variables now know

to be associated with school effects. (To illustrate the latter, the study included no measures for classroom size, teacher qualification, classroom procedures, academic press, or sense of community associated with schools in the study—thus, in effect, it had concentrated its efforts on school processes that probably don't have an impact. (p. 8)

Biddle and Berliner (2003) also contended that previous studies had used small, unrepresentative samples. In addition, they said the following:

Most did not examine school funding directly but rather funding-associated school characteristics—such as teacher salaries, student-teacher ratios, or administrative costs—that may or may not be tied to student achievement. Many also employed questionable measures, nonvalidated scales, poor regression models associated with multicollinearity, and inappropriate techniques for statistical analysis. (p. 9)

Each area described casts a shadow of doubt on the conclusions of researchers who state that money does not make a difference in student achievement.

In contrast to the poorly designed research projects and their claims of the minimum impact of funds for schools, Biddle and Berliner (2003) stated that “strong surveys collect data from reliable sources, make use of validated measuring and scaling procedures, and employ appropriate statistical tools for analyzing data” (p. 9). Biddle and Berliner (2003) concluded that when researchers use these techniques, research on school funding demonstrates that levels of funding can be correlated with student achievement.

School funding has remained inequitable in part because of the federal court system, racial divisions, historical practice, and an uninformed and/or uncaring American public. Inequities have also continued because of research, such as the *Coleman Report*,

that purport that funding is not associated with academic achievement. This evidence, along with increases in school funding (unequally, of course) have led many in the general public to lose faith in the public school system. However, most of the increases for schools have gone toward mandated, partially funded initiatives that do not focus on basic instruction instead going toward special education and school lunch programs. The notion that money cannot be correlated to academics has been questioned by many educational researchers. Their research demonstrates that besides a student's socioeconomic status, school funding is the most important aspect in forecasting student success.

Adequacy, the Standards Movement, and the Argument in the Courts

After the landmark book, *A Nation at Risk*, was published in 1983 (National Commission on Excellence in Education), educational reform became a national priority. One of the developments in reforming America's schools was the call for higher, specific standards in education, for example, the standard that all students are able to read at grade level by the end of third grade. To ensure that standards have been reached, high-stakes tests are now an integral part of every child's education.

The state of Michigan provides an example in which to view the standards movement. In 2004, the state of Michigan released an update of its standards in Language Arts and Mathematics. The Michigan standards are detailed in the *Grade Level Content Expectations* document. Schools in the state of Michigan now have a description of what every student is expected to achieve in Language Arts and Mathematics by the end of each school year. In Science and Social Studies, standards are provided in the Michigan Curriculum Framework. Instead of using grade levels, the state of Michigan uses Science

and Social Study benchmark levels: elementary, middle, and high school. The *Michigan Education Assessment Program* (MEAP) tests are derived from the Grade Level Content Expectations and the Michigan Curriculum Framework. The MEAP tests are critical to public schools because these scores are the major factor in determining the success of schools and school districts. Schools that do not score well do not attain Adequate Yearly Progress (AYP) and are liable for a host of punitive measures if improvement does not occur. It is easy to see that everything in education comes down to academic standards.

Implementing an educational system built upon standards has influenced school funding. In an interview with Farrace (2003), Allan Odden stated the following:

In implementing standards-based education reform, with content standards, tests and student performance linked to those tests, states were saying that they expected the education system to educate all kids up to at least a proficiency level of performance. In part as a result, school finance litigation, which had focused on just the equity, began to shift to what was called “adequacy,” arguing that while dramatic differences in dollars per pupil were still a problem, the bigger issue was whether or not school districts had adequate money to deploy programs to teach their kids to the proficiency levels of the state testing system. (p. 25)

The use and reference to standards has led adequacy to be defined by the question “What kind and amount of resources does it take to enable all students to reach desired achievement levels?” (Odden & Augenblick, 2000, p. 1). This is a fundamental shift in how the assessment of school resources has moved from a straight comparison of the national average for per-student funding to questioning how much it takes for schools to reach the

standards. It also addresses the public concern over how funds are being spent and over the link between spending and results (Odden & Augenblick, 2000).

Reviewing the argument for adequacy, two reasons have driven the argument. First, the standards movement in education has made it easier to determine if students are meeting learning objectives. If they are not, it may be reasonable to assume that there are not sufficient funds to provide them the necessary education to meet the stated standards. Second, because of the standards, school districts now have legal recourse when students fail to meet the minimum standards (Odden & Augenblick, 2000). Odden (2003) explained the following:

Under the standards-based education reform, the benchmark test of school finance policy is whether it provides sufficient—or adequate—revenue per pupil for districts and schools to deploy educational strategies that are successful in educating students to high standards of performance. (p. 120)

Through state standards and assessments, schools now know what is expected of their students. Working back from the standards, schools can identify the experiences and materials necessary for their students to meet the minimum proficiency. Odden (2003) stated that “implementing this approach to school finance should also produce gain in fiscal equity because in most states it requires a ‘leveling up’ of low-spending districts and schools” (p. 121).

The adequacy argument has been effective in state courts. Odden (2003) stated that The legal issue is not so much whether one district has more or less than another, but whether all districts in the state have revenues that are adequate for the

programs and strategies they must deploy and for the teachers they must hire in order to educate students to high levels of achievement. (p. 121)

In North Carolina, plaintiffs lost an equity case but won a subsequent case based on adequacy (Clune, 2001). A prime example of the adequacy argument is the *Tennessee Small School System v. McWherter* court case of 1993. This case led the Tennessee Supreme Court to file an opinion stating that the funding system used at that time in the state of Tennessee was unconstitutional because it did not provide necessary funds for all school districts to provide an adequate education (Peevey & Ray, 2001). Similar suits have been filed in the following states: (a) Alabama, (b) Arizona, (c) Kentucky, (d) New Hampshire, (e) New Jersey, (f) New York, (g) North Carolina, (h) Ohio, (i) Washington, (j) West Virginia, and (k) Wyoming (Odden & Augenblick, 2003). The basis for each of these suits is the belief that school funding systems in each state do not provide adequate resources for all students to achieve state standards.

Another state where the issue of adequacy is making changes is the state of Maryland. In 2002, an adequacy report was given to the legislator. It recommended that an additional \$1-2 billion dollars be spent on public education to ensure that students met the state of Maryland academic standards. Even with limited funds and a static economy in Maryland in 2002, the legislature enacted a bill that provided the necessary funds (Odden, 2003). Collen and Underwood (2005) have determined that “since 1989, plaintiffs have won 24 of the 29 lawsuits brought over inadequate funding systems” (p. 3). There seems to be no reason for this trend not to continue.

The results of court cases that find a state’s funding system inadequate differ. Much of the time the state legislators are given the responsibility of determining the appropriate

changes. This means that models have been designed to approximate how much each school district should receive. Collen and Underwood (2005) stated that there are four primary models that are used as the remedy for public school funding: (a) “the Successful Schools model, (b) the Professional Judgment model, (c) the Evidence-Based model and (d) the Statistical model” (p. 6). The Successful Schools model takes the money spent per student in successful schools and adopts that amount statewide. A panel of teachers and administrators identify the amount of resources needed to adequately educate students in the Professional Judgment model. The Evidence-Based model uses the latest research on what works best in education and makes adjustments on the basis of demographics. Finally, the Statistical model applies a formula consisting of demographics, test scores, salaries, and other like variables to determine the appropriate amount to spend per student. But as Odden and Augenblick (2000) stated, “Policymakers still face a calculation that is more art than science” (p. 4). More changes in these models are sure to come as legislators, educators, and the general public observe the results from increased spending that is intended to provide an adequate education for all children.

Equity and adequacy are both important concepts in this study. Each can be used as a lens to gain a perspective on the resources provided to both school districts and the differences between the two districts because of the different levels in funding. A more compelling question is whether the children in both districts are receiving an adequate education.

Conclusion

Funding public schools has been controversial since the very first *common school* in American history (Biddle & Berliner, 2003). Because of the personal interest every citizen has ideologically and/or financially, school funding is continuously in the forefront of political debates. School funding is a foundational issue that reaches into race relations, accountability, and opportunities to live the American Dream.

Through the political process, public policy that directs how schools are funded is shaped. The views regarding the impact school funding has on the educational opportunities of children swing from those who say spending is not relevant to the quality of education a child receives to those who point out that enhanced learning opportunities positively impact a child's education and are only available to higher funded school districts (Hanushek, 1994a, 1998; Biddle & Berliner, 2003). This debate impacts poor children, minority children, and those children who are both poor and minority. These children receive less funding and fewer educational opportunities than do wealthy children.

Two terms, equity and adequacy, reflect the past and present philosophical arguments for providing more funds for education. In the past, arguments have been made that all schools, even those in poor areas, should receive the same funding as schools in traditionally high-property-value communities. Since the standards movement in education, the argument has been that all students deserve an adequate education—everything they need until they meet the standards (Odden, 2003).

The courts have been important in determining the role of the federal and state governments in providing resources for schools. The Supreme Court Case *San Antonio Independent School District v. Rodriguez* effectively took away the responsibility of the

United States Government for funding public education and placed that responsibility with each individual state. The adequacy argument, based on academic standards, has proven much more successful than the equity argument in state courts (Collen & Underwood, 2005). Although a degree of leveling in funding has occurred between some poor and wealthy districts, substantial differences still exist. The quality of education for children is still based solely on where they live, and the practice of distributing funds unequally to public schools continues.

Chapter 3 contains the presentation of the methodology, a description of how the school districts were selected for this study, and the demographics of the communities. It also addresses the following: (a) the process used for exploring the school district budgets, (b) the validity and reliability measures used in the research process, and (c) an analysis of the budget.

CHAPTER 3: METHODOLOGY

The purpose of this study was to explore how two districts with similar demographics but dissimilar revenues were able to allocate funds toward the following: (a) K-3 class size; (b) special reading programs, especially in lower elementary; (c) advanced placement/honor classes; (d) foreign language courses; (e) music, art, and athletics; and (f) continued teacher learning. This comparison was helpful to see if additional funding per child resulted in enhanced learning opportunities for the students in the higher funded district.

Mixed-Methodology Research Design

Haller and Kleine (2001) stated the following regarding the necessity of having a theoretical base when conducting research: “If the study simply seeks to establish that certain variables are related, an explanation for why those relationships are expected is required” (p. 126). The rationale for using a mixed-methodology research design was based on the focus of this research project, the type and availability of the data, and the belief that this design is best suited to help explain the relationship between the level of funding and the availability of enhanced learning opportunities. Within the mixed-methodology research tradition, this study is best defined as a descriptive, nonexperimental research project with a cross-sectional time definition.

The focus of this study was to examine whether a student’s address is an important determinant in the likelihood of his/her opportunity to experience a meaningful and adequate education. To develop a rational argument supporting or dismissing this premise, both qualitative and quantitative data are necessary. Quantitative data such as

demographics, test scores, student population, percentage of students receiving free or reduced-price lunch, and median home values provided the baseline data for selecting these two districts. However, numbers alone do not provide the level of data necessary to build a complete rationale for stating that a zip code is or is not the most important variable determining the quality of education provided. Qualitative data provide the description and *story* behind the numbers. In this way, the qualitative and quantitative data complement one another and provide a fuller, more complete argument either supporting or rejecting the notion that a child's zip code determines the level of education that he or she receives.

The specific variables examined in this study were as follows: (a) K-3 class size; (b) special reading programs, especially in lower elementary; (c) advanced placement/honor classes; (d) foreign language courses; (e) music, art, and athletics; and (f) continued teacher learning. These variables were chosen because of their prominence in the school-improvement research literature. Each variable reflected extensive research demonstrating its importance in providing a meaningful learning experience that may provide future benefits for children. These benefits include future academic success and thus, it is hoped, a greater possibility of children's being purposeful and productive members of society. These variables were also chosen because of their prominence in the *No Child Left Behind* legislation of 2000. The state of Florida introduced a class-size reduction initiative, in part, to raise test scores. Testing is now done in grades 3-8 to ensure that students are reading at grade level. And in his 2006 State of the Union Address, President Bush emphasized the need to provide more Advanced Placement opportunities for high school students. And finally, NCLB has strict requirements that teachers be *highly qualified*, which in many cases are tied to a teacher's education.

The investigation of these variables lends itself to both quantitative and qualitative sources of data. The number of teachers in a school district provides some of the necessary information, but descriptions of their assignments, the curriculum that they use, and the support provided to them by their school district are equally important. Test scores provide data, but interviewing school staff may provide the reasons students scored as they did. It is the combination of quantitative and qualitative data that provided the necessary data for this study. In summary, the mixed-methodology research design provided the best structure for obtaining the necessary information to fulfill the focus of this study and to fully investigate the several variables associated with a quality, meaningful learning experience.

Description of the Sample

Two public schools were the focus of this research project. Both are located in Western Michigan. The National Center for Educational Statistics (NCES) (1992) has designated both communities as rural, inside Statistical Metropolitan Statistical Area (SMSA) places with populations of less than 2,500; and the U.S. Census Bureau defines them as rural but within the geographical boundaries of a midsize city. The two school districts are approximately 40 miles apart. On the basis of the 2002-2003 school year data, school District M had an enrollment of 738 students. School District S had an enrollment of 748 students. According to the state of Michigan's *Bulletin 1014*, District S received \$8,846 (\$4,107 local, \$4,127 state, and \$99 federal) per student, and District M received \$7,440 (\$426 local, \$6,362 state, and \$486 federal) per student in fiscal year 2003. On the basis of these student enrollments and total revenue per student, District S received \$1,406 more per student. This means that District S received \$1,037,628 more in revenue than did

school District M. This substantial difference in funding provided the setting for examining how the additional money available to District S was spent in regard to the following:

- (a) K-3 class size; (b) special reading programs, especially in lower elementary;
- (c) advanced placement/honor classes; (d) foreign language courses; (e) music, art, and athletics; and (f) continued teacher learning.

Demographics

Districts M and S were selected as the samples for this research project because of the similarities in their demographics, as well as the difference in their per-student foundation grants. Similar demographic information included the following factors:

- (a) enrollment distribution by race/ethnicity, (b) status of being considered economically disadvantaged, (c) households made up of one parent, and (d) household income in the median range. There were differences in the percentages of students with disabilities and the percentages of adults with at least a bachelor's degree. The source of the demographic information for comparing the communities was reports from the U.S. Census Bureau (2003), SchoolMatters (2004), and the National Center for Educational Statistics (2003). The information in Table 1 below describes the demographic data for both school districts.

Table 1

Demographic Information for School Districts M and S

Demographic information	School District M	School District S
(a) Enrollment distribution by race/ethnicity	White: 95.8% Hispanic: 3.3% Black: 0.4%	White: 93.5% Hispanic: 4.6% Black: 0.6%
(b) Economically disadvantaged	25.5%	23.8%
(c) One parent households	8.9%	7.7%
(d) Median household income in the community	\$46,976	\$48,172
(e) Students with disabilities	18.6%	3.7%
(f) Adults in the community with at least a bachelor's degree	9.4%	29.1%

The data contained in the table demonstrate the many similarities in demographic information between the two districts. This information is important because even though there are similarities, the difference in their per-student foundation grant could impact their enhanced learning opportunities and, therefore, their achievement. Two additional differences are in the numbers of students with disabilities and the numbers of adults with bachelor's degrees. The reason for the difference in the numbers of students with

disabilities is difficult to determine. District procedures for identifying students as eligible for special education services or the location of the district in connection to other health providers in that area of Michigan are possibilities. The difference in the numbers of college-educated adults is most likely due to the location of the district that receives higher funding. The district is located along the shore of Lake Michigan. Higher land values mean people with more money and, concurrently, a higher level of education would live in this district.

Instruments and Gathering Data

The foundational source of data for this study was the financial reports from the school districts. Both school districts provided financial reports from July 1, 2002 to June 30, 2003. The fiscal year for school districts in the state of Michigan ends on June 30 and begins July 1. By law, every school district must have a balanced, board-approved budget by July 1 of every year. The financial reports from the districts showed the amount budgeted for each category mandated by the *Michigan School Accounting Manual* (Michigan Department of Education, 2004), the actual amount spent during the fiscal year, and any differences between what was budgeted and what was actually spent. The financial reports showed the line-item budget code for every revenue and expenditure. Line-item revenues included all areas in which school districts received income such as taxes; local, state, and federal grants; and interest earned on investment. The expenditure line items listed in each area were monies that were spent by the district. Both the revenue and expenditure sections of the financial reports followed the *Michigan School Accounting Manual* (Michigan Department of Education, 2004).

Because of the *Michigan School Accounting Manual*, it was possible to do straightforward comparisons of revenues and expenditures of both districts. For example, line item 10-3-311-2200-000-0000-00000-0000 denoted the amount received by both school districts on the basis of their per-student grant amount. And line item 10-1-112-1240-000-0000-00000-000 provided the amount of money spent by both districts' elementary teaching salaries. A rubric using the line-item budget codes was constructed that showed each expenditure related to the following: (a) K-3class size; (b) special reading programs, especially in lower elementary; (c) advanced placement/honor classes; (d) foreign language courses; (e) music, art, and athletics; and (f) continued teacher learning.

In addition to the school district financial records, other companion sources that assisted in documenting the revenues and expenditures of school districts M and S were examined. SchoolMatters is a division of Standard and Poor's Evaluation Services. SchoolMatters is paid by the state of Michigan to provide online reports for the general public on every school district in the state. The report provided by SchoolMatters is a general outline of a school district. It consists of general observations of the district, assessment data, demographics, and financial data. These data are compared to that for similar districts, as well as to statewide averages. The data provided by SchoolMatters provide a brief picture of a school district's revenues and expenditures. This information was useful for a preliminary comparison of school districts M and S.

The state of Michigan produces financial reports that provide financial data on every school district in the state. Two of the reports were used in this study. The reports are *Bulletin 1014* (Michigan Department of Education, 2002-2003a) and *Bulletin 1011* (Michigan Department of Education, 2002-2003b). *Bulletin 1014* ranks districts by key

financial information, and *Bulletin 1011* provides a broad analysis of a school district's revenue and expenditures. *Bulletin 1014* is the state of Michigan's report that ranks districts within counties by selected financial data. It also categorizes revenues into four categories: (a) local, (b) state, (c) federal, and (d) all sources.

Federal revenue is money allocated to a school district by the federal government. Often this money is provided to the state or a local governmental body and then redistributed to the district. An example of a local governmental body is the county intermediate school district. Examples of the types of Federal revenue allocated to a school district as evidenced in the financial reports reviewed by the researcher are as follows: (a) gifted and talented, (b) drug free, (c) Title I, (d) Title II, and (e) Title V. Eligibility for federal funds is based upon documented need. For example, for a district to receive Title I funds, a district must have a certain number of students receiving free or reduced-price lunches.

The final revenue category is All Sources. This category shows the total amount received by the school district from local, state, federal, and intermediate units of government. An example of an intermediate unit of government is the county that the district is in. In *Bulletin 1014*, the All Sources category does not equal the first three categories because the All Sources category includes money received from intermediate units of government and any transfers. The difference between local, state, and federal revenue and All Sources for school District M was \$94, and for school District S it was \$513. The total amount of revenue for the 2002-2003 fiscal year for District M was \$7,396, and for District S it was \$8,846.

Bulletin 1014 divides school district expenditures into four broad categories: (a) Instruction, (b) Support Services, (c) Current Operating Expenditures, and (d) General Fund Expenditures. The Instruction category is divided into five subcategories: (a) basic programs, (b) added needs, (c) adult education, (d) total instructional expenditures, and (e) instruction salaries. The Support Services category is divided into six subcategories: (a) instructional, (b) business, (c) administration, (d) operations, (e) maintenance, and (f) total support services. The Current Operating Expenditure category is the total of Instructional and Support Services. This category does not include capital outlay or community services. The General Fund Expenditures category groups together all accounts for operating a school district and includes community services and capital outlay expenditures.

The Instructional category of expenditures demonstrates the direct costs of teaching students in a classroom or a classroom situation. This includes basic programs for pre-school, elementary, and middle and high school students, as well as for special education, compensatory education, vocational education, and adult education. For comparing expenditures in programs and personnel, it is important to note that all salaries and fringe benefits of those involved in classroom instruction are included in this category. This includes classroom aides, who are responsible for assisting teachers in providing instruction. In some districts, classroom aides, who are assigned when the classroom reaches a certain number of students or are provided for early childhood classrooms.

The Support Services category of expenditures is the cost a school district incurs for providing administrative, technical, and logistic support for instruction. This includes itinerant staff, like speech pathologists, principals, central office staff, operations and maintenance, transportation, food service, and noncapital facility outlays. The data

provided by *Bulletin 1014* were helpful in providing financial data and providing a template of how to organize the expenditures from both districts.

Another supporting source of data for this study from the state of Michigan was *Bulletin 1011*. *Bulletin 1011* is an analysis of Michigan public school districts revenues and expenditures. It provides a greater description of school district revenues and expenditures by examining each in closer detail and providing greater detail.

Bulletin 1011 provides data on General, Capital Project, Debt Retirement, School Service, and Trust and Agency Funds. Funds are money that is set aside for specific activities. *Bulletin 1011* stated that “a fund account constitutes a complete accounting entity; all of the financial transactions for the particular are recorded therein” (Michigan Department of Education, 2003, p. 4). The General Fund is all revenues and expenditures of a district for education except for food service, athletics, some special education programs, purchase of real estate, building of schools, and the payoff of related debts. Capital Funds refers to all purchases of real estate, the building and/or remodeling of schools, and purchases of equipment such as furniture and computers. The Debt Retirement Fund is money set aside for the payment of principal and interest from long-term debt. The School Services Fund is used to track revenues and expenditures of food service, community services, and interscholastic expenses. The School Services Fund is a subsidiary of the General Fund. Finally, the Trust and Agency Fund is used when a school district acts as the trustee or agent of assets for another organization or individual.

Bulletin 1011 provides balance-sheet accounts for assets, liabilities, and the school districts' fund balance. Each is necessary in ascertaining the financial health of a school district. Of particular importance is the percentage of fund balance a school district has

compared to its overall budget. The Michigan School Business Officials (2004) suggests that school districts maintain a minimum fund balance of 10% of their budgets.

Similar to *Bulletin 1014*, *Bulletin 1011* categorizes school district revenues and expenditures into subcategories. The difference in *Bulletin 1011* is that the Expenditure subcategories are further divided into specific areas. Basic Programs, Added Needs Programs, and Adult Education Programs are under the Instruction Expenditure category. The Supporting Services Expenditure category includes the following subcategories: (a) Pupil, (b) Instructional Staff, (c) School Administration, (d) General Administration, (e) Business Administration, (f) Facilities Acquisition, (g) Operations and Maintenance, (h) Pupil Transportation, and (i) Other. Additional Expenditure Categories in *Bulletin 1011* included the following: (a) Current Operating Expenditures, (b) School Lunch Program, (c) Athletics, (d) Community Services, (e) Salaries, (f) Benefits, (g) Capital Outlay, (h) Total Expenditures before Transfers, (i) Outgoing Transfers and Other Transactions, (j) Average Salary per Teacher, and (k) State Aid Members. Every category provides useful information in the analysis of where school districts M and S spend their money.

The three areas from which financial data were retrieved, the financial reports from districts M and S, SchoolMatters, and *Bulletins 1014* and *1011* from the state of Michigan provided a form of triangulation in which each source of data could be referenced and checked for accuracy by the others. These documents also represent the quantitative research for this study. And each document can be viewed as credible. All school districts in the state of Michigan must be audited by an outside agency each year to determine that all revenues and expenditures have been properly documented and reported. The level of

accountability for each financial report provides an intertwined and integrated set of data that is reliable and credible.

Once the financial data were collected and each source had been checked against the others for accuracy, spreadsheets were used to compare the numbers. The comparison of the accounts then led to the qualitative analysis of this study. The first step in the data analysis was interviewing the superintendents of M and S. The purpose of the first interview was to provide an explanation of the study to the superintendent and to request his/her participation. To do this, five open-ended questions were developed for use in the first meeting with the superintendents. The researcher recorded the answers in a notebook. The information in Table 2 below shows the questions that were asked of the superintendents from both school districts.

Table 2

Open Ended Superintendent Questions, Interview 1

Question number	Superintendent questions
1	From your perspective, how is your district doing financially?
2	How would you define the term <i>enhanced learning opportunities</i> ? Does your budget provide students with enhanced learning opportunities? What are they?

(Table 2 continues)

Table 2 (continued)

3	Did your district increase or decrease enhanced learning opportunities for students during the 2002-2003 school year? Specifically in the areas of K-3 class size, special reading programs, advanced placement/honor classes, yearly opportunities to take physics, chemistry, calculus, foreign language, music, and art, athletic opportunities, and benefits to teachers in obtaining or having a master's degree.
4	What is your biggest concern when you look at the budget today? Is this the same concern that you had two years ago?
5	How does your district compare to other districts in your county in terms of financial stability, growth, and the ability to provide enhanced learning opportunities?

The questions from Table 2 follow the qualitative research guidelines of Miles and Huberman (1994). These questions also provided direction to the researcher as to where to go next for appropriate qualitative and quantitative data.

In addition to the questions, superintendents received a request for the following: (a) all financial reports from the 2002-2003 school year; (b) board meeting minutes; (c) information on the basic education programs for the elementary, middle, and high schools; (d) high school course-selection books; (e) extracurricular opportunities for students at all levels, including athletics, music, art, and school-sponsored clubs; (f) programs for at-risk students; (g) programs for gifted and talented students; (h) the number of students in each

class in grades K-3; (i) the teacher salary schedule; and (j) the number of teachers who had obtained a master's degree or higher. This information was not available through review of the financial reports from the school district or any of the other documents used for gathering the quantitative data. Both superintendents kindly provided the necessary information. Both were also candid in providing their analyses of the school funding system in the state of Michigan and how it affected their school districts.

The purpose of the second interview was to clarify information provided in the documents and in their answers from the first interview. The list of questions was specific. It was necessary to clarify how one school district grouped middle school students with high school students. Compensation for athletic directors, the athletics directors' secretaries, and supplemental contracts for music teachers were also questioned. Class size was also reviewed to ensure that the information provided was not a teacher:student ratio, which would provide an inaccurate description of how many students K-3 teachers were actually responsible for. Use of grants, especially Title I and II grants, was also clarified to provide a better understanding of how this money was used to assist at-risk students and to provide professional development for teachers. Finally, the interview was used to discuss general perceptions of the researcher of the financial condition of the district during the 2002-2003 school year.

The final interview with the superintendents was completed to show the conclusions of the research. This step was critical to determine if the researcher had, in the view of the superintendents, properly portrayed the revenues and expenditures of their districts in the study.

Validity and Reliability of the Research Process

Anfara, Brown, and Mangione (2002) stated the following regarding validity and reliability in qualitative research: “The problem is that qualitative researchers do not always provide their readers with detailed explanations of how research questions are related to data sources, how themes or categories are developed, and how triangulation is accomplished” (p. 23). The qualitative methodology portion of this research connects the questions raised by the following: (a) K-3 class size; (b) special reading programs, especially in lower elementary; (c) advanced placement/honor classes; (d) foreign language courses; (e) music, art, and athletics; and (f) continued teacher learning. These areas of focus were transformed into the questions that were used to analyze the school district budgets. The answers supported the theme of how money may affect student achievement when students are provided enhanced learning opportunities. Through separate sources of financial data, such as *Bulletin 1014* from the state of Michigan and financial and academic data from Standard and Poor’s School Evaluation Services, information was verified.

With inspiration from Miles and Huberman (1994), the following tactics were used to build the connection between the questions and the data sources: (a) noting patterns and themes; (b) counting; (c) making contrasts/comparisons; and (d) noting relations between variables. These tactics provided valid and reliable systems for making comparisons and coming to conclusions while analyzing financial data and reviewing artifacts and interview notes.

Findings were confirmed and data quality was checked by following the suggested guidelines of Miles and Huberman (1994): (a) weighting the evidence, (b) following up on surprises, (c) ruling out false relationships, and (d) going back to informants to check for

meaning. Special attention was placed on going back to the superintendents to confirm the research findings. Guba and Lincoln (1989) stated the following:

The process of testing hypotheses, data, preliminary categories, and interpretations with members of the stakeholding groups from whom the original constructions were collected. This is the single most crucial technique for establishing credibility. If the evaluator wants to establish that the multiple realities he or she presents are those that stakeholders have provided, the most certain test is verifying those multiple constructions with those who provided them. (p. 228)

The confirmation of the research findings by the superintendents demonstrated some measure of valid and reliable conclusions.

In order to further validate the research findings, an outside and impartial school finance expert was provided the data without the names of the school districts. This school finance expert is a member of the Michigan School Business Officials organization, has previously served on the board for the MSBO, currently teaches graduate classes on school finance at Michigan State University, and has been a successful, practicing school business official for more than twenty years. This individual reviewed the budget reports, the process for analyzing the budgets, including the rubric used to separate the data into the variable categories, and the final conclusions drawn from the data. His involvement in the process brought another level of validity and reliability to this study.

In summary, to ensure validity and reliability, multiple sources of data were used. The questions of the research project drove the type of data that was examined. Several tactics were used to build a connection between the questions and the available data. Table

3 below shows the sources of data for this study, how the sources of data were used, and how the data sources were connected to the other data sources.

Table 3

Validity and Reliability Measures

Source of data	Use	Connection
<i>Michigan School Accounting Manual</i>	Provided description of how Michigan schools are to record revenue and expenditure	<i>Bulletins 1011 and 1014</i> and school budget reports
<i>Bulletin 1011</i>	Provided balance sheet accounts for assets, liabilities, and the school districts' fund balance	<i>Bulletin 1014</i> , school budget reports, and SchoolMatters
<i>Bulletin 1014</i>	Divided school district expenditures into four broad categories: (a) instruction, (b) support services, (c) current operating expenditures, and (d) general fund expenditures	<i>Bulletin 1001</i> , school budget reports, and SchoolMatters

(Table 3 continues)

Table 3 (continued)

School budget reports	<p>Showed the amount budgeted for each category mandated by the <i>Michigan School Accounting Manual</i>, the actual amount spent during the fiscal year, and any differences between what was budgeted and what was actually spent</p>	<p><i>Bulletins 1011 and 1014</i> and SchoolMatters</p>
SchoolMatters online reports	<p>Provided online reports for the general public on every school district in the state</p>	<p><i>Bulletins 1011 and 1014</i> and school budget reports</p>
Superintendent interview	<p>Provided answers to five open-ended questions based on observations from the quantitative data and a second round of follow-up questions</p>	<p><i>Bulletins 1011 and 1014</i>, SchoolMatters, school budget reports, and district documents</p>

(Table 3 continues)

Table 3 (continued)

District documents	Provided Board of Education minutes, teacher pay scale, class size numbers from 2002-2003, course-description booklets, athletics and extracurricular activity handbooks, and curriculum and instruction information	Superintendent questions (both rounds) and superintendent questions
Outside expert	Veteran school business official reviewed all data and provided validity to data.	<i>Bulletins 1011 and 1014</i> , SchoolMatters, school budget reports, superintendent questions, and district documents

The sources of data, how they were used, and the connections to one another provide proof that appropriate research resources were used in this study. It is also important to note that each of the sources is largely nonbiased in its reporting and is motivated to provide accurate and complete data to the general public.

Data Analysis

The *Michigan Public School Accounting Manual* (Michigan Department of Education, 2004), also known as *Bulletin 1022*, provides all the necessary guidelines for

accounting practices for public schools. *Bulletin 1022* allows comparisons between school district budgets through standardization. Its stated primary purpose is “to develop systems which make possible combinations of data to provide necessary financial information for decision making” (p. 3). It also states that “minimum requirements are defined to provide necessary comparability in the recording and reporting of financial information for Michigan districts, regardless of size” (p. 3). Therefore, the first step in analyzing the district financial information was to understand the mechanisms and the accounting code system used by *Bulletin 1022*.

This researcher used the accounting codes in *Bulletin 1022* to identify and pull specific-expenditure budget accounts from the school district budgets and placed them in a table. The group of accounts that were compared all had the possibility of being related to the following: (a) K-3 class size; (b) special reading programs, especially in lower elementary; (c) advanced placement/honor classes; (d) foreign language courses; (e) music, art, and athletics; and (f) continued teacher learning. The budget codes were as follows: (a) K-6 /7-12 salaries; (b) gifted/talented salaries; (c) teaching supplies and dues; (d) school improvement salaries; (e) school improvement substitute-teacher costs; (f) professional development; (g) textbooks; (h) in-services; (i) library books, periodicals and supplies; (j) art supplies; (k) physical education supplies; (l) music supplies; (m) cleaning of band uniforms; (n) music equipment; (o) extracurricular salaries; (p) student awards; (q) high school music field trips; (r) athletics salaries; (s) coaching salaries; (t) athletics secretary salaries; and (u) bus drivers for athletics events. In some cases, the lower funded district did not have some of the same accounts such as the one for cleaning band uniforms.

Selected account information from the budgets, course handbooks, athletics handbooks, and board meeting minutes was analyzed to determine whether there was a possible connection between the budgeted amounts and evidence of student opportunities. For example, District S spent \$418,000 more on teacher salaries for grades 7-12. Did this additional money translate into more teachers, a different pay scale, teachers with more experience, or teachers with master's degrees? Similar questions were reviewed in each area of the budget.

Conclusion

This chapter described the methods and procedures used to analyze the budgets of two districts with dissimilar per-student foundation grants. Quantitative and qualitative data were used from both districts to determine whether the higher funded district allocated more funds for the following: (a) K-3 class size; (b) special reading programs, especially in lower elementary; (c) advanced placement/honor classes; (d) foreign language courses; (e) music, art, and athletics; and (f) continued teacher learning. The quantitative data used for the analysis included the school district budgets, school district artifacts, and reports from the state of Michigan and Standard and Poor's School Evaluation Services. The qualitative data used for the analysis were the superintendent interviews and the review of several artifacts such as board meeting minutes, course schedules, and athletics handbooks. The instruments used to analyze the data were rubrics constructed to compare and analyze the data. Validity and reliability of the data are based upon credibility of the sources, the ability

to compare the data sources against one another, and the review of an outside school finance expert. This information led to the analysis and conclusions found in Chapters 4 and 5.

CHAPTER 4: RESULTS OF THE STUDY

In this study, the researcher examined and compared two districts with demographics that had some similarities as defined by the U.S. Census Bureau but had dissimilar revenues. One district received \$7,440 per student, and the other district received \$8,846 per student. The purpose of the study was to see if the additional funding per child resulted in enhanced learning opportunities for the students in the higher funded district. The specific areas investigated were as follows: (a) K-3class size; (b) special reading programs, especially in lower elementary; (c) advanced placement/honor classes; (d) foreign language courses; (e) music, art, and athletics; and (f) continued teacher learning.

Data Analysis Procedure

A mixed-methodology research design was used to determine if the higher funded district provided more enhanced learning opportunities for its students. Quantitative data were collected and compared from school budget reports, the SchoolMatters website, and state of Michigan *Bulletins 1011* and *1014*. Budget line items from both budgets were then separated into categories related to the following: (a) K-3class size; (b) special reading programs, especially in lower elementary; (c) advanced placement/honor classes; (d) foreign language courses; (e) music, art, and athletics; and (f) continued teacher learning. These data were used to assess whether the school districts had used their funds to support activities and programs that enhanced learning and to determine where the higher funded district had spent its additional revenue. Qualitative data were then gathered from interviews with superintendents and building administrators and by a review of web sites, Board of Education minutes, course-selection booklets, handbooks, and athletics

handbooks. These data were then integrated into the qualitative data to expand upon the initial quantitative findings.

Comparison of District Budgets

The integrative strategy Extreme Case Analysis (Caracelli & Greene, 1993) was used to analyze the district budgets. As the tables in this chapter will show, there are substantial differences in the amounts of revenue received and spent for operation. For example, District S received \$8,846 per student for its state foundation grant, whereas District M received \$7,440 per student. This is a difference of \$1,406 per student, which provided District S with more than \$1 million dollars in additional revenue. The reason the amounts are different is because of *Proposal A*, the name of the current system used by the state of Michigan to determine public school funding, which was approved by Michigan voters in 1994.

Closer examination of the budgets shows substantial differences in areas that may not be expected. The town in which District M resides received a federal grant to build a town-wide water system 14 years ago. The grant ended in 2002, and the residents of the town, including the school district, now must pay for the system without a subsidy from the federal government. This meant that during the 2002-2003 school year, District M spent more than \$17,000 more in water and sewer fees than did District S even though District M has fewer buildings, 10 fewer students, and a smaller staff. Another substantial area in which District M paid more than District S was in transportation. Even though the number of buses used by both districts was similar, the additional square miles in District M

required longer bus routes. Bus drivers are paid hourly, and the longer routes mean more money spent in transportation salaries for District M.

Other areas of extreme difference in the budgets are K-12 salaries and athletics expenditures. District S spent \$633,833 more in K-12 salaries than did District M. The teacher:pupil ratio was similar for both districts, so the difference was in the amount paid to all personnel related to K-12 education, most of which was for teachers. In District S, teachers averaged more than \$8,000 more in their yearly salary than did teachers in District M. In 2002-2003, beginning teachers with a B.A. degree in District M earned \$28,592, whereas a beginning teacher with a B.A. in District S earned \$32,392. This difference increased over time. After seven years, a teacher in District M with a B.A. degree earned \$35,454, whereas a teacher in District S with the same experience and credentials earned \$42,109. Another difference in the salary schedules is that teachers are rewarded in District S when they earn their master's degree plus 30 hours. The highest pay rate a teacher in District M can receive is a master's plus 15 hours. The most a teacher could earn in District M after 25 years of service is \$57,074. The most a teacher could earn in District S after 17 years is \$62,840. This difference would lead to the likely belief that District S would be more attractive to highly qualified teaching candidates and thus have a greater pool of applicants from which to select.

District S spent \$156,272 more in athletic expenditures. This amount was directly related to the number of sports offered by District S, especially at the middle and high school levels. For each additional sport offered, there were costs for equipment, travel, custodians, and salaries for coaches and officials. District S also had a full-time Athletic Director, whereas District M had a part-time Athletic Director.

Comparison of the two budgets also demonstrates similar expenditures. But even similar expenditures reinforce the apparent disparity between the two districts. District M spent \$6,876 more in Special Education salaries than did District S. Although nearly \$7,000 may seem insignificant in a budget of \$5-6 million, it illustrates that the district that received less money had higher special education costs, which means that it had less money to spend on regular education programs. It is also important to note that although the expenditures are similar, they represent a greater percentage of the budget for District M than for District S. This same logical process can be applied to the expenses for K-12 aide salaries. Only \$120 separated the two districts, but the \$79,439 expenditure in aide salaries is more significant for District M. In the budget data, District M did not have any area in which it showed a significant savings over District S except for areas in which District M did not provide the same type of opportunities as District S such as in athletics.

During an interview, it was related to the superintendent of District M that some in the education community thought that all school districts were headed over the financial cliff like a group of lemmings because of the inherent structural problems in the current funding system. He retorted that his district was at the front of the lemming line. He related that although this study was of one fiscal year, the current status of the school district was a result of several years of rising costs, especially in health care and retirement. The superintendent stated that his district would keep its doors open as long as possible but that he firmly believed a time would come in the next few years when the district would no longer be able to maintain financial viability (Personal communication, October 10, 2005)

When the same lemming analogy was related to the superintendent of District S, he agreed that this was the case. He related that he was hopeful that the additional funding that

his district received had put his district toward the back of the lemming line and that the districts going over the cliff before his would elicit changes in the current funding system. He was also quick to relate that revenue was a part of the equation but that expenditures, specifically in healthcare and retirement expenses, had to be curbed. He stated that almost all of the projected increases in state funding for in the 2005-2006 school year would be swallowed by increased costs. When it was related to the superintendent that by outside appearances the students in his districts were privileged because of the funding their district received, he agreed. But he also stated that he did not see the personnel and programs in his district as extras but as crucial to providing an adequate education for children. It was important to the superintendent that it be understood that his district was being adversely affected by the current funding system in the state of Michigan and that it had been making cutbacks and reductions even though it was a higher funded districts (Personal communication, October 12, 2005). Table 4 lists general data that provide an overview of the revenue and expenditures for districts M and S during the 2002-2003 school year.

Table 4

Total Revenue and Expenditures for the 2002-2003 Fiscal Year/Pupil Count

	District M	District S	Difference
Total revenue	\$5,307,374	\$6,612,383	\$1,305,009
Total expenditures	\$5,306,901	\$6,546,195	\$1,239,294
Pupil count	738	748	10
Per-student foundation grant	\$7,440	\$8,846	\$1,406

For the 2002-2003 fiscal year, District S received \$1,406 more per student, which gave District S \$1,305,009 more revenue than District M. In an era in which budget reductions are necessary on the basis of rising healthcare and pension costs and stagnant funding from the state of Michigan, this difference in funding appears to be meaningful in maintaining learning opportunities and staff. A record of these budget cuts can be seen by reviewing the Board of Education minutes for both districts.

Because the state of Michigan's public school funding system is based on student enrollment, a declining enrollment can be disastrous. At District M's March 17, 2003, board meeting, the superintendent reported that declining enrollment continued to be a problem for the school district. Some of these students left through the *schools of choice* option mandated by the Michigan Legislature. Although the option for students to leave and attend the school district of their choice in the same county (where room was available) hurt the financial status of District M, it helped District S, which regularly attracts students from neighboring schools. At the March 24, 2003, Board of Education meeting for District S, it was reported that there were 131 schools of choice students. This represented 17.75% of the student body. At \$6,700 per student, this means that District S received \$877,700 more revenue during the 2002-2003 fiscal year than it would have if only resident students attended. It is reasonable to assume that the enhanced learning opportunities provided in District S had an effect on attracting students to that district. And conversely, it is reasonable to assume that the lack of enhanced learning opportunities in District M motivated families to move their children to other school districts. Table 5 lists all areas of revenue for districts M and S on a per-student basis and the difference between the two districts in each area.

Table 5

Sources of Revenue for Districts M and S (per student)

	District M	District S	Difference
Local sources	\$426	\$4,107	\$3,681
State sources	\$6,362	\$4,127	\$2,235
Federal sources	\$486	\$99	\$387
Other	\$166	\$513	\$347
Total	\$7,440	\$8,846	\$1,406

The difference in local source funding demonstrates the difference between the nonhomestead property values in District M and District S. District S has several properties that are billed at the 18 mill nonhomestead property tax because they are not primary residences. This is linked to one of the community's main sources of revenue, tourism. The difference in federal sources may be attributed to the percentage of free and reduced-price lunch students served by District M. The number of special education students, combined with the number of students who are eligible for free or reduced-price lunch, provide greater opportunities for District M to receive more federal revenue. Because these added federal revenues do not fully cover the costs of special education and other compensatory services, it requires additional funding from general education and therefore becomes a disproportionate burden for District M even with federal revenue.

Expenditures for students are shown in Table 6. These expenditures are grouped by categories and are defined as follows: Basic programs are classroom costs related to pre-school, elementary school, middle school, and high school instructional programs. Added

needs are the classroom costs related to special education, compensatory education, and vocational education. Total instruction costs are the sum of basic classroom expenditures, added needs, and adult education classroom instructional costs. Instructional salaries are the total salary and fringe benefit costs of all classroom instructional personnel.

Instructional support costs include but are not limited to speech therapists, guidance counselors, school nurses, and curriculum specialists. Business and administration includes the costs of general administration, school administration, business services, central services, and other support services. Operations and maintenance are costs related to keeping all district buildings open, comfortable, and safe. The average salary per teacher is determined by dividing the total salaries of certified staff by the teacher FTE reported by the school district. Pupil:teacher ratio is calculated by dividing the fall pupil count, not including special education students, by the total number of K-12 teachers.

Table 6

Per Student Expenditures for District M and S

	District M	District S	Difference
Basic programs	\$3,499	\$4,305	\$806
Added needs	\$1,044	\$660	\$384
Total instruction	\$4,544	\$4,965	\$421
Instructional salaries	\$4,299	\$4,748	\$449
Instructional support	\$565	\$942	\$377
Business and administration	\$1,161	\$1,293	\$13
Operation and maintenance	\$596	\$852	\$256

(Table 6 continues)

Table 6 (continued)

Average teacher salary	\$42,308	\$50,252	\$7,944
Pupil:teacher ratio	18	17	1

As expected, District S spent more in each category except Added Needs, which incorporates special education, compensatory education, and vocational education expenses. District M had a higher percentage of special education students, and not all services were provided in that district. This meant that some students had to be transported to neighboring districts. For example, the superintendent of District M explained in an interview that there was one autistic and one hearing impaired child in the district. Because it could not provide the necessary services to these students, they were transported to a neighboring district. The transportation cost to the district for 2002-2003 school year exceeded \$15,000. The pupil:teacher ratio is closer than what might be expected, but these numbers are determined by dividing the number of students (not including special education students) by the number of K-12 certified staff. This is different than students per section, which is a better indicator of actual class sizes. Table 7 below lists actual expenditures for each district across 12 expenditure categories; the last column shows the difference in spending for each district for each category.

Table 7

Selected Expenditures for Districts M and S in Total Amounts Spent

	District M	District S	Difference
K-12 salaries	\$1,516,000	\$2,149,833	\$633,833

(Table 7 continues)

Table 7 (continued)

Special education salaries	\$212,000	\$205,124	\$6,876
All K-12 aides salaries	\$79,439	\$79,559	\$120
Principal salaries	\$127,000	\$219,591	\$92,000
Superintendent salaries	\$98,500	\$93,355	\$5,145
Custodian salaries	\$130,000	\$181,766	\$51,766
Water and sewage	\$32,212	\$14,939	\$17,273
Waste removal	\$6,500	\$4,706	\$1,794
Heating	\$50,000	\$51,789	\$1,789
Electricity	\$70,000	\$110,269	\$40,269
Pupil-transportation salaries	\$97,600	\$58,872	\$38,728
All athletics expenditures	\$80,000	\$236,272	\$156,272

The three areas with the greatest discrepancy are K-12 teacher salaries, principal salaries, and athletic expenditures. There was almost an \$8,000 difference between the average salary of a teacher in District M and the average salary of a teacher in District S. SchoolMatters (2004) reported the following regarding District M: “Statewide, only 8.0% of Michigan’s school districts report lower average salaries” (p. 10). The difference in principal salaries is due in part to District S’s having three principals, whereas District M only has two. District S has a grades K-5 building, a grades 6-8 building and a grades 9-12 building. District M has two buildings. One building houses grades K-5, and the other building houses grades 6-12. The elementary principal for District S earned \$12,000 more per year than his/her counterpart at District M. The high school principal for District S

earned more than \$11,000 more than his/her counterpart in District M. The difference in athletic expenditures was due to the number of additional sports provided for students in grades 7-12 by District S. It was also due to District S's having a full-time athletics director, whereas District M had only a half-time athletics director.

As significant as these differences were, a review of the Board of Education minutes revealed that the differences increased between the two districts the following fiscal year. At the February 26, 2003, board meeting in District M, the superintendent presented information to the board that the district would need to reduce the budget for the 2003-2004 fiscal year by over \$230,000. In part, this led to the decision at the April 21, 2003, board meeting to not extend the contracts of the high school assistant principal and part-time athletic director and to lay off two certified staff members. District S also had to make reductions in its 2003-2004 budget. At the June 2, 2003, Board of Education work session, it was reported that District S would have to cut \$326,000 from the 2003-2004. However, even with the deficit, the budget that the board would be asked to adopt for the 2003-2004 fiscal year would still keep the fund equity of the district at 18%. Because lunch prices and athletics ticket prices were increased, no personnel were laid off in the athletics or food service departments and no programs were cut. At the June 16, 2003, Board of Education meeting in District S, the board adopted the budget presented to them at the June 2, 2003, board work session. The financial concern discussed at this meeting was the need to replace band uniform bibs and band dresses and choir robes.

Budget Allocations and Enhanced Learning Opportunities

Additional revenues can only make a difference in enhancing student learning opportunities if the funds are used appropriately. It is possible that a school district that

receives more than the minimum per-student foundation grant could spend its money on activities that have not been linked in the research to greater learning and academic achievement. Examples of this could include renovated and state-of-the-art teachers' lounges, turf athletic fields, and new athletic and band uniforms each year. The following information shows how Districts M and S used their funds to support enhanced learning opportunities for their students. In a way, it also demonstrates how District S used its additional funding. To start, Table 8 below compares average class size across kindergarten through grade three.

Table 8

Average K-3 Class Size

Grade level (per class)	District M	District S
Kindergarten	26	18
First grade	21	22
Second grade	24	22
Third grade	22	23

On the basis of the teacher salary data and the pupil:teacher ratio, it might be expected that District S would have considerably smaller class sizes. However, that is not the case in grades K-3(or in any grade) in District S, despite the fact that the research strongly suggests that class sizes of 16 or fewer students are best for student learning. The relatively high numbers in kindergarten and second grade in District M point to the reality that money was not available for adding another section to these grade levels. During an interview with the superintendent of District M, he lamented that 26 students in a

kindergarten class was difficult for the teacher and the students, but because financial constraints would not allow the district to add another section, it did the best that it could under the circumstances. This contrasts with District S, which added another section when a *bubble* appeared in its second grade. In the interview with the superintendent from District S, the superintendent stated that parents and staff had been concerned with the high number of students, so another section was added after school began that fall. They had the available resources to make this accommodation. District S also has Class Size Guidelines. In the March 24, 2003, board meeting minutes, it stated that the current guidelines were as follows: (a) D-K-18; (b) K-2-22; and (c) 3-12-25. The recommendation was to increase K-1 classes to a maximum limit of 22 students, second-grade classes to a maximum limit of 23 students, and third-grade-through-high-school classes to a maximum limit of 26 students. This recommendation was approved at the April 14, 2003, board meeting. Although neither district demonstrated the class size numbers suggested in the research, it is evident that the additional funding available to District S allowed it to create class sizes that at least could not be labeled as *detrimental* to student learning, which is what many educators (and certainly parents) would call 26 students in a kindergarten class.

Special Reading Programs

The focus of early childhood education is to prepare and then teach children how to read. The ability to read is the precursor to all other academic learning. Although school districts mandate several number-one priorities, it could be convincingly argued that the first and most important priority for every school district is to teach children how to read fluently and to comprehend the written material. Table 9 below compares the amount spent

by both districts in areas related to the teaching of reading. Title I and Title II are federal grants that are given to schools on the basis of student need.

Table 9

Expenditures Related to Teaching Reading

Expenditure description	District M	District S	Difference
Title I total	\$214,182	\$88,464	\$127,717
Title II-A total	\$50,000	\$22,211	\$27,789
Early education grant	\$3,700	N/A	\$3,700
Pre-school total (salary and materials)	N/A	\$38,381	\$38,381
Library, elementary (salary and materials)	\$16,335	\$83,750	\$67,415
Library, high school/middle school (salary and materials)	\$76,022	\$99,021	\$22,999

Title I funds, funds from the federal government, are provided to support and assist at-risk students to learn how to read. District M's percentage of students who qualify for free or reduced-price lunch, and the number of special education students, as well as other demographic factors, provide District M with a significant level of Title I funds. However, as the superintendent of District M explained during an interview, every grant has significant constraints as to what it can and cannot be spent on. This includes Title I and II funds. He explained that every grant requires extensive reporting that is mandated but not funded. As helpful as the Title I funds are, the superintendent of District S would not

switch places. The additional funding District S has allowed them to have a full-time librarian at the elementary school and a generous budget for books and materials that support literacy. In District M, aides provide technical support, enabling students to sign out books, and they also read stories to students. However, a library aide does not have the literacy training to provide and support instruction like the certified librarian in District S.

Similarly, Title II funds are from the federal government and are used to support professional development for teachers. District M received considerably more Title II funds than did District S. District M used its Title II funds to pay for a full-time Curriculum Coordinator. Although this person was helpful, the superintendent of District S noted that the position was not extended to the following year because the amount of the Title II grant was decreased. It is also important to note that District S spent \$10,267 on professional development, but it had \$24,000 budgeted for the year. Because this money was its money and was not from a grant, it had greater flexibility in how, when, and where it would spend that money. In essence, the money was saved and added to the next year's budget for purchasing future curriculum materials. This is unlike the procedure for Title I and II funds, which only allows 15% of the grant to be carried from one year to the next.

Further evidence of how money affects the ability to provide reading programs can be seen in the list of materials used by the elementary teachers in District M and District S. In an interview, the elementary principal from District M shared that "all K-4 teachers used Houghton Mifflin. Kindergarten teachers also used Sunshine Readers and Wright Group Books as supplemental readers. Title I services only for struggling readers" (Personal communication, December 12, 2005). Title I funds can pay for the aides who provide additional reading help for struggling readers in the lower elementary grades. This is in

contrast with District S, in which a curriculum director is not employed, but over a longer period of time, it has been able to train staff and purchase materials that have collectively improved its reading program. The response from the elementary principal from District S to the same question was as follows:

Kindergarten used the Michigan Literacy Progress Profile (MLPP) assessments and strategies and Zoophonics, and all K-4 classes used the Scott Foresman materials. The materials are theme based, which matches the requirements of the MEAP and state benchmarks. At the lower elementary level we also use *Leap Ahead*, which is actually for at-risk readers, and, also, Accelerated Reader books for our advanced readers. The upper elementary [teachers] have also been trained in the MLPP and utilize many of those strategies, and everyone is beginning to weave in the use of literature in the teaching of the six traits of writing. (Personal communication, January 19, 2006)

Although funding is only one of many variables, it seems reasonable to assume that the additional money available to District S has been used over time to provide a more up-to-date and comprehensive reading program with research-based materials for both struggling and advanced readers that is aligned with state benchmarks.

Further evidence that District S is continually improving its reading program comes from the April 14, 2003, board meeting minutes. It was reported at this meeting that during the summer of 2003, elementary teachers would be meeting to review K-5 Language Arts (Michigan Literacy Refinements) and to begin mapping the elementary curriculum, which they were paid to do. The 2002-2003 board minutes from District M do not contain any reference to improving the reading program in any capacity.

Advanced Placement Course Opportunities and Related Budget Expenditures

Advanced placement courses provide learning, functional, and financial opportunities. They provide college-like learning opportunities to help students earn college credit and save them money in tuition. However, advanced placement courses are only possible if the entire educational system within the school district adequately prepares students for their rigor. Table 10 below compares district class offerings in advanced placement courses and related budget expenditures.

Table 10

Advanced Placement Course Opportunities and Related Budget Expenditures

Course/budget expenditure	District M	District S	Difference
AP English	Yes	Yes	No
AP Biology	Yes	Yes	No
AP Spanish	No	Yes	Yes
AP U.S. History	No	Yes	Yes
AP Anatomy	No	Yes	Yes
Michigan Virtual University	No	Yes	Yes
Gifted and talented supplies	\$2,679	\$6,490	\$3,812
Extracurricular G/T salary	\$0	\$2,552	\$2,552
High school teaching supplies	\$32,000 (includes grades 7 and 8)	\$38,626	\$6,626
Dual enrollment	\$3,500	\$6,220	\$2,720
Technology director salary	\$21,500	\$52,368	\$30,869

(Table 10 continues)

Table 10 (continued)

Technology repair and maintenance	\$3,000	\$5,620	\$2,621
Internet contract/license	\$0	\$25,616	\$25,616

District S provides three additional AP courses on the high school campus and all of the AP courses made available through Michigan Virtual University. It is reasonable to assume that District S can provide these opportunities because of its additional funds. AP course materials are expensive, especially courses in the sciences because of the material costs. District S can offer AP courses through the Michigan Virtual University because of the technology that is available at the high school. Technology equipment is purchased through capital funds, but the salaries of the technology personnel as well as software purchases and Internet service come from the general fund. District S is able to provide high-speed Internet service and a full-time technology director and has the ability to maintain its equipment. This is an example of how technology can support curriculum and instruction; this example demonstrates how students are provided with the opportunity to take Advanced Placement courses.

Technology can also be helpful in facilitating learning from home while strengthening community support and being a vehicle for marketing the positive aspects of the district. Both districts have web sites, but only District S has a website that is interactive. It allows parents to track student achievement; find out important information related to athletics, programs, and curriculum; and communicate with staff. The

friendliness and functionality of District S's web site, compared to District M's, were significantly better.

During the 2002-2003 school year, District M did not review or adopt any new textbooks or supplementary curriculum materials. Although not directly tied to Advanced Placement courses, it is important to note that District S approved the purchase of new textbooks for Chemistry, Applied Science, and K-3 Social Studies at its May 12, 2003, Board of Education meeting. Again, the opportunities available in District S can in part be attributed to the additional funding it receives from the state of Michigan.

Foreign Language

As the global marketplace becomes more and more of a reality, it is evident that students need to have the ability to speak a foreign language. Research clearly shows that young children learn a second language faster and more capably than older students. In addition to learning a second language earlier in their school career, it is also important that students have the opportunity to continue their learning in advanced language courses through high school. Table 11 below portrays the difference in number and quality of foreign language offerings in District M and District S.

Table 11

Foreign Language Teacher Salaries and Supplies

Expenditure	District M	District S	Difference
Elementary foreign language salaries	\$0	\$14,738	\$14,738

(Table 11 continues)

Table 11 (continued)

Grades 7-12 foreign language salaries	\$26,123	\$50,252	\$24,129
Foreign language supplies/materials	\$250	Not a line item	—
Copyright of foreign language textbooks	1992	N/A teacher created	—
Foreign language instruction grades 1-5	No	Yes	—
Foreign language instruction grades 6-8	No	Yes	—
Foreign language instruction grades 9-12	Yes: two courses	Yes: four courses	—

Research clearly demonstrates that elementary-age children are the most capable of learning and retaining a second language. Studies that support waiting until high school to start learning a foreign language are nonexistent. The area of foreign language study provides a clear and representative difference between District M and District S. The first opportunity for students in District M to begin learning a second language is in ninth grade. In contrast, students in District S begin learning a second language in first grade. District S provides early and prolonged language instruction. This is clearly an advantage for these students and provides them with academic learning advantages as well as life-long skills that enhance their abilities to succeed in the global economy. And because foreign language study begins at an early age, District S provides Spanish I, II, III, and IV course

offerings in high school. District M only provides Spanish I and II. The difference between the top levels of Spanish provided is evidenced in the course handbooks. District M's handbook (District M Public Schools, 2002) stated that in Spanish II, "advanced oral proficiency, listening skills, grammar forms, reading and writing, as well as computer programs for self-instruction, are all emphasized" (p. 8). District S's handbook (District S Public Schools, 2002) stated that in Spanish IV, "this one-year course is a continuation of Spanish III. Reading, grammar and oral proficiency are stressed along with the cultures of Spain, Argentina, Puerto Rico, and Mexico. Spanish is spoken most of the time in this course" (p. 12). District S also cooperates with a nearby college and allows students to take Spanish IV for college credit without additional cost to the student. As shown in the previous table, providing foreign language study to elementary students and extended and dual enrollment opportunities at the high school requires a substantial investment of funds. But District S has these funds available to it because of its higher per-student foundation grant.

Music, Art, and Athletics

The value of music, art, and athletics in the lives of students cannot be over-estimated. Friday night football games, school musicals, and opportunities to express artistic ability provide much of the context for student success. Music, art, and athletics are also valuable in integrating students into core curriculum learning. For example, music is mathematically based, book reports can be completed on athletes, and art is embedded into every culture. From a marketing standpoint, successful music, art, and athletic programs are often given as a reason by students and parents for why they have chosen certain school districts. Table 12 below lists actual expenditures for each district across 12 music, art, and

athletic opportunities in both districts, and the last column shows the difference in spending for each district for each category.

Table 12

Music, Art, and Athletics Expenditures

Expenditure	District M	District S	Difference
Music teacher, full-time equivalency (FTE)	1 FTE	1 FTE	—
Music supplies	\$500	\$7,204	\$6,704
Instrument maintenance and repair	\$500	\$1,844	\$1,344
Band uniform cleaning	\$0	\$609	\$609
Music support salaries	\$0	\$2,960	\$2,960
Art supplies	\$1,000	\$4,702	\$3,702
Athletic director salary	\$15,000	\$31,270	\$16,270
Coaches/manager' salaries	\$61,518	\$97,009	\$35,490
Extracurricular salary, elementary	\$4,054	\$8,519	\$4,464
Extracurricular salary, middle school	\$1,258	\$5,350	\$4,092
Extracurricular salary, high school	\$11,115	\$18,199	\$7,083
Extracurricular salary, music	\$2,796	\$8,162	\$5,366

For two school districts nearly equal in student population, the difference in enhanced learning opportunities in music, art, and athletics is substantial. In an interview, District M's superintendent stated, "We have one special teacher at the elementary who does both art and music, but it is a very limited offering. It is sometimes only once a week

for 30 minutes. At the middle school, there is a combined seventh- and eighth-grade art class and a combined seventh- and eighth-grade band class. Vocal music is not offered” (Personal communication, October 10, 2005). In contrast, District S’s Superintendent stated, “There is an art teacher and a music teacher at the elementary level. There are a variety of music and art classes offered at the middle school” (Personal communication, October 12, 2005).

The differences between the districts continue when offerings at the high school level are reviewed. District S offers seven different Art courses in grades 9-12. Two of these courses are taken in conjunction with two different colleges in the area, and students earn college credit. District M offers two Art courses, Art and Advanced Art. Neither provides the opportunity to earn college credit. District S offers Band, Choir, and Jazz Band for all high school students. These classes all include periodic performances throughout the school year. These opportunities included competitions, school events, sporting events, and community productions. District M offers one music course, Senior Band. The course description in the handbook showed that it is a general instrumental-music course with limited opportunities. These findings indicate that because of the multiple opportunities in Music and Art, District S’s classes are much richer and more focused than those provided in District M.

District M does not provide any school-sponsored extracurricular activities for elementary students. In an interview with District S’s elementary principal, she stated, “After-school and extracurricular activities for elementary students include *Girls on the Run, Jr. Gardeners, Art Club, Science and Technology Club, Talent Show, Math Pentathlon* and *Ski Club*” (Personal communication, October 12, 2005). There are also

fee-based after-school opportunities available through the Community Recreation Department in District S. District S provides this information on its website and in hard copy. In both cases, the appearance is pleasing and professional. Table 13 below lists the available high school athletic opportunities in District M and District S.

Table 13

High School Athletics Opportunities

Athletic opportunity	District M	District S
Freshmen football	No	Yes
Freshmen boys basketball	No	Yes
Junior varsity football	Yes	Yes
Varsity football	Yes	Yes
Junior varsity boys basketball	Yes	Yes
Varsity boys basketball	Yes	Yes
Junior varsity girls basketball	No	Yes
Varsity girls basketball	Yes	Yes
Junior varsity baseball	No	Yes
Varsity baseball	Yes	Yes
Junior varsity softball	No	Yes
Varsity softball	Yes	Yes
Junior varsity volleyball	No	Yes
Varsity volleyball	Yes	Yes

(Table 13 continues)

Table 13 (continued)

Co-ed track	Yes	Yes
Co-ed wrestling	Yes	Yes
Power lifting	No	Yes
Boys soccer	No	Yes
Girls soccer	No	Yes
Boys golf	No	Yes
Girls golf	No	Yes

Districts M and S both provided interscholastic opportunities in middle and high school; however, District M eliminated all freshmen teams. District M offered the following Varsity athletic opportunities: (a) Football, (b) Girls' and Boys' Basketball, (c) Baseball, (d) Softball, (e) Volleyball, (f) Co-ed Track, and (g) Co-ed Wrestling. District S provided all of these opportunities, plus Power Lifting, Soccer, and Golf. The difference in the number of opportunities accounted for the difference in the amount of money spent on coaches' and managers' salaries.

The number of nonathletic extracurricular opportunities is related to the number of extracurricular athletic opportunities provided by District S. In an interview, the Superintendent of District S stated, "Our high school students have many nonathletic, extracurricular opportunities to choose from. These include debate, quiz bowl, rain forest club, and several others that I can't remember at this time" (Personal communication, October 12, 2005). When asked the same question, District M's superintendent stated, "Very few! High School Quiz Bowl, Student Council, and National Honor Society are the

only ones provided” (Personal communication, October 10, 2005). When specifically defining *nonathletic* and *extracurricular*, it may not even be fair to include student council or the National Honor Society. Students have to be selected to be a part of either organization; they are selected by their peers to student council and by their teachers to the National Honor Society.

In summary, District S provided more learning opportunities to its students in music, art, and athletics than did District M. Because the sizes of the student populations are similar, it is appropriate to point out that the main difference between the two districts is due to funding.

Teacher Education and Training

Each year more is known about how students learn best. It is essential that teachers are provided with the latest in educational research and given the opportunity to incorporate this research into their daily instruction. Effective staff development takes time and resources. Table 14 below lists actual expenditures related to teacher effectiveness for both districts. The last column shows the difference in spending for each district for each category. (See Appendix A for lists of the 2002-2003 salary schedules for Districts M and S.)

Table 14

Indicators of Teacher Effectiveness

Indicator	District M	District S
Percentage of teachers with a master's degree	40%	64%

(Table 14 continues)

Table 14 (continued)

Average teacher salary	\$42,308	\$50,252
K-12 professional development	\$0	\$10,268
Percentage of teachers for NCLB highly qualified	90.2%	97.1%
Average years of experience for K-6 teachers	13.64	15.63
Average years of experience for 7-12 teachers	11.05	11.73
Financial assistance with graduate courses	Max of \$1,500	\$600 per year or three graduate credits

Although not universally accepted, there is some research that suggests that there is a correlation between teacher pay and teacher effectiveness. If this is accurate, then the almost \$8,000 difference between the average salaries is meaningful. Perhaps more meaningful than the difference in pay is the difference in additional support that teachers in District S received through the professional development budget to further their learning. District S teachers were provided a financial incentive to continue their learning outside of school and to complete their master's degrees. Although these factors may not be apparent to their communities, the higher pay, the financial incentive to earn a graduate degree, and the additional money spent on professional development could equal more qualified teachers, who are more likely to provide a rigorous and relevant education. This is not the case in District M where the pay is lower and there aren't the same incentives or opportunities to further professional learning.

Although there was a difference in pay and in incentives, it would be inappropriate to suggest that the teachers in District M are inferior to the teachers in District S in all areas. Defining what a competent teacher looks like is difficult, and describing how one group of teachers is better than another is difficult. As the superintendent in District M shared in an interview, “My teachers are dedicated professionals. They care about their students, and they work hard. I would not trade them” (Personal communication, October 10, 2005). Even so, it would appear that the additional funds available in District S provided more learning opportunities for teachers, and if such experiences can be correlated to teaching performance, District S clearly had the advantage.

The actual merits of professional development continue to be questioned by researchers and education practitioners. But ask most public school administrators, and they will explain that regardless of the research findings on the effectiveness of professional development, they are inclined to believe that it is necessary for keeping teachers up to date on current practices in instruction. District S spent more than \$13 on professional development for every one student. This seems substantial. And when questioned about professional development, the superintendent of District S shared that “professional development in our district focuses on what teachers need to know to assist students in their learning. We are concerned about using the latest research to impact teaching and learning” (Personal communication, October 12, 2005). Circumstantial evidence of how District S is ahead of District M in the latest instruction and curriculum information came from the interviews with the two elementary principals. The District S principal spoke about the importance of teachers’ knowing the Language Arts and Math Grade Level Content Expectations (GLCEs) published last year by the Michigan

Department of Education. She also stated the need for providing students with books that were at the child's *lexile* level and how the *Writing Traits* program was helping students learn how to effectively communicate with the written word. The principal of District M did not mention these areas and instead focused on Title I Services for struggling readers, the implementation of the commercial reading program, and a few ancillary materials used to support the reading program. It is possible that in this instance, a higher level of funding, which translated into professional development opportunities, was instrumental in building professional knowledge at the elementary school in District S.

Conclusion

The purpose of the study was to determine whether the additional funding per child resulted in enhanced learning opportunities for the students in the higher funded district. The specific areas investigated were as follows: (a) K-3 class size; (b) special reading programs, especially in lower elementary; (c) advanced placement/honor classes; (d) foreign language courses; (e) music, art, and athletics; and (f) continued teacher learning.

The inferred results from the quantitative and qualitative analyses in this study show that additional funding did in fact provide enhanced learning opportunities for the students in the higher funded school district. And it was not in just one or two areas, but in each area that was investigated. Chapter 5 contains a discussion of the results, recommendations for further research, and thoughts on the future of public school funding.

CHAPTER 5: SUMMARY OF RESULTS, DISCUSSION,
AND RECOMMENDATIONS FOR FURTHER
RESEARCH, PRACTICE, AND POLICY

The purpose of this study was to compare two districts with similar demographics but dissimilar revenues to see if additional funding per child resulted in enhanced learning opportunities for the students in the higher funded district. The enhanced learning opportunities were as follows: (a) K-3 class size; (b) special reading programs, especially in lower elementary; (c) advanced placement/honor classes; (d) foreign language courses; (e) music, art, and athletics; and (f) continued teacher learning.

Research has indicated that subjecting students to these opportunities can positively impact their learning. Achilles (2002) has provided several examples of how small class sizes benefit student learning. Wray, Medwell, Fox and Poulson, (1999) showed how reading-intervention strategies in developing readers can boost the number of students reading at their grade level by third grade. Santoli's (2002) research showed that students taking advanced placement/honor courses fare better in completing a four-year degree. Cutshall (2005) showed that students who have taken foreign language courses have higher standardized test scores. Coltin's (1999) research described the varied benefits of students' being involved in music, art, and athletics opportunities. And Darling-Hammond (2000) showed the likelihood that supporting teacher learning does impact the quality of instruction students receive. Districts that provide these specific opportunities likely enhance the learning provided to their students.

Summary of Results

Despite the sample limitations of using two small districts as the focus of the study and only one year of financial data used, results of this study indicated that the higher funded district provided greater opportunities in each of the enhanced learning areas except in the area of K-3 class size. The difference in class sizes between the two districts was negligible. The difference in the other areas could be seen as substantive, especially when the difference in funding was translated into actual learning opportunities provided in District S that were not provided in District M. The difference in numbers between budget items is made more striking by the written and spoken comments of the district representatives, the Board of Education minutes from the 2002-2003 school year, and the district web sites and supplemental materials, such as the course booklets and student handbooks. The sense from the lower funded district, which was communicated through the condition of the school grounds, district publications, district documents, and personal interaction, was one of inadequacy. The difference in perspective between the two districts, which the researcher felt was based considerably on financial resources, was evident during the interviews with the superintendents and principals. Those associated with District M demonstrated a lack of hope, which is understandable considering that they had to lay off staff and cut programs because of financial limitations.

K-3 Class Size

An observation of K-3 class sizes, as seen in Table 8 in Chapter 4, shows minor differences except for kindergarten class sizes, for which the numbers are higher in District M. Achilles (2002) demonstrated that both schools had class sizes that did not positively affect learning. To actually benefit student learning, Achilles (2002) recommended class

sizes of 16 or less. It is apparent that the additional revenue District S received was not used for lowering the size of K-3 classrooms. When this was reviewed with the superintendent of District S, he acknowledged that having class sizes of 16 or less in grades K-3 would have been nice but that it was not a priority for his community. He did not discount the research but did not feel it was necessary because about 20 students in a classroom was what his community felt was appropriate. He also had concerns about how teachers who taught grades 4-12 with higher class sizes would respond. The superintendent for District M did not see how lower class sizes in grades K-3 would be possible. His sentiment was that his staff was so lean that it could not be redirected or reallocated.

Special Reading Programs

The differences in money available for providing special reading programs are noted in Table 9 in Chapter 4. Title I and II monies were significantly higher in District M. However, in the analysis of district documents and interviews, it was evident that the additional money District S spent on personnel and programs related to reading instruction provided a richer literacy experience for students. It is also important to note that although District M received an Early Education Grant, District S spent \$38,381 for its preschool program. Although not discussed in this study, the evidence is overwhelming that students need to be immersed in language as soon as they are born. The preschool program demonstrated District S's commitment and ability to have children who are prepared for school when they enter kindergarten. District M does not have a preschool program. And although the Title I and II funds were able to provide personnel for that school year to help with professional development for teachers and reading services for students, District S had

certified librarians in its media centers and was able to purchase significantly more books and materials.

Advanced Placement/Honor Courses

Table 10 in Chapter 4 demonstrated the stark contrast between AP, online, and dual-enrollment opportunities in District M and S. Two AP courses were offered on site in District M. Five were offered on site in District S. However, the real difference was evident when it was shown that District S students, who may take AP classes on line, had greater dual-enrollment opportunities. The difference in the per-student foundation grant from the state of Michigan certainly seems to have affected the technological abilities of District M and District S.

Gifted and talented programs are often connected to AP courses. An argument could be made that a gifted and talented program at the elementary and middle school levels would assist in preparing students for AP courses in high school. On the basis of this premise, students in District S had greater opportunities for success in Advanced Placement courses because of earlier opportunities.

Foreign Language

Table 11 in Chapter 4 highlights two significant differences in the foreign language programs at District M and District S. First, District S provided foreign language instruction at the elementary level. Learning a foreign language at a younger age has been shown to be much more effective than waiting until high school. Second, the number of courses and their advanced levels (including college credit opportunities) in District S showed that their students had additional opportunities in foreign language learning. Students partaking in these opportunities could save themselves money by having already

taken all of the language courses they needed before going on to college or by testing into a higher level college course.

Music, Art, and Athletics Expenditures

As shown in Table 12 in Chapter 4, District S was able to spend more on music, art, and athletics. The additional money translated to more life and learning opportunities and, quite possibly, more positive learning experiences. It would be reasonable to believe that District S's band would look and perform much differently because they were able to spend more on supplies, instrument maintenance/repair, and directors' salaries. The organization of athletic events would also seem to be compromised by District M's only being able to provide a part-time Athletic Director. The number of high school athletic opportunities provided by Districts M and S is recorded in Chapter 4 in Table 13. Extracurricular salaries at the elementary, middle school, and high school levels also demonstrate how District S was able to pay school personnel to be in charge of learning activities outside of the normal school day.

Teacher Education and Training

Table 14, in Chapter 4, shows that some of the additional revenue District S received went to teachers. Although the number of years of teaching experience is very close, teachers in District S received an average of almost \$8,000 more per year. Part of this could be attributed to the fact that 64% of the teachers in District S had earned their master's degrees. This could be partly the culture of District S, but it is more likely that receiving \$600 per year or three graduate credits makes earning a master's degree more affordable for teachers in District S.

Discussion

The results of this study indicate that the district with the additional revenue was able to provide greater enhanced learning opportunities that research has demonstrated can positively affect student learning and achievement. Each area, except for K-3 class size, showed a substantive difference between the two districts. Funding and programs were greater in reading instruction, AP and honor courses, foreign language offerings, Music, Art, athletic opportunities, and continued teacher education.

The qualitative and quantitative data used in this study were integrated to support the indication of greater enhanced learning opportunities in District S. The quantitative data illustrate that the over 1.3-million-dollar difference in revenue between the two districts for the 2002-2003 school year was used by District S to fund several programs and additional personnel. District S spent \$633,833 more in salaries, \$128,796 more in reading-instruction-related areas, \$43,357 more on foreign language instruction, \$88,085 more in music-, art-, and athletics-related expenditures, and \$10,268 more on professional development. It also offered five more on-campus AP courses. An analysis of spending shows that District S used approximately \$904,337 of the \$1.3 million in additional funding on research-based practices and programs for the benefit of its students. This still leaves almost \$400,000, but because this study only focused on a few areas, this money could have been used for other research-based practices outside the parameters of this study. It might also explain the updated facilities, nicer landscaping, and newer technology observed at District S.

The qualitative data used in this study consisted of interviews with the superintendents and principals, Board of Education meeting minutes, course-selection

books, athletics handbooks, website analysis, student handbooks, and teacher salary schedules. This illustrates how financial-resource differences could dictate perspectives on the current and future status of both districts.

The discussion topics at the Board of Education meetings were decidedly different between the two districts. District M topics included the layoff of staff and the elimination of academic, extracurricular programs, as well as a dangerously low fund balance. District S also had difficult challenges, but topics centered on academics and improving the educational environment for students. District S was still able to maintain an 18% fund balance going into the 2003-2004 school year even while having a \$300,000-dollar-plus deficit from the 2002-2003 school year.

If additional funding is able to provide enhanced learning opportunities and these learning opportunities do in fact help provide an adequate education for students, then it would be reasonable to expect higher academic achievement in District S. And, in fact, this is true. Although it would not be prudent to suggest that the difference in funding is the only variable responsible for the higher academic achievement, so it would also seem irresponsible to deny its importance. In 2002, the ACT mean score in District S was 22.3. The same year, the ACT mean score in District M was 20.4. Although not a significant difference, the most telling statistic is that 74.5% of the eligible students in District S took the ACT test, whereas only 40.7% of the eligible students in District M took the ACT test, a difference of 33.8%. In District S, the number of students who took the ACT test was nearly double the number that took it in District M. Similarly, in MEAP testing, District S had a MEAP passing rate of 62.7%. Seventeen and two-tenths percent of these students achieved a score described as *excelling*. District M had a MEAP passing rate of 42.2%, and

only 6.2% of these students achieved an excelling score. And most disconcerting, especially when viewing the research on how extracurricular activities can help keep students in school, District M's graduation rate was 68.1%, and District S's was 94.3%. Although it was not the purpose of this study to establish such correlations, the substantial difference in academic outcomes suggests that funding may affect student achievement.

Because of the limited scope of this study, no attempt was made to extrapolate the impact of the funding differences between the two districts before and after the inception of Proposal A. Neither was an effort made to transfer these findings to other districts in the state of Michigan.

Also, not specifically addressed in this study was the issue of leadership and resource management. The success of organizations is partly based upon past decisions by its leadership. This variable was not included in this study, but if the experience of the superintendent is relevant, then both districts had a superintendent who had been in his/her position for at least four years. And the superintendent at District M had been a part of his current district for almost 30 years.

Although not an exhaustive study, this research supports the idea that funding impacts learning opportunities for students. It also supports the notion that this may in turn impact student achievement in various ways.

Recommendation for Further Research

The districts chosen for this study were selected on the basis of their sizes, differences in funding levels, and demographics. The researcher recommends that additional studies using the same enhanced learning opportunity definitions be conducted

with larger districts that have differences in funding. Another relevant study would be to examine two districts that are similar in most aspects of funding to determine if there is a possible difference in how funds are allocated in like districts and if this has any impact on student learning opportunities and student achievement.

Recommendation for Practice and Public Policy

As previously stated and shown in this study, funding public education is a volatile topic in the public policy arena. In a very small and limited way, this study attempts to add to the research that can be used to debate the following primary questions regarding the funding of public education. First, should a child's home address determine how much money is spent on his or her education? Second, is the minimum per-student foundation grant from the state of Michigan adequate to ensure that every child is given the opportunity to meet the state academic standards? And finally, do additional revenues likely provide enhanced the learning opportunities that research suggests are connected to higher student achievement?

Based on the findings of this small study, it is apparent that a child's zip code does determine, either positively or negatively, many facets of his/her education. It seems incomprehensible that this can be defended by any organization, politician, or citizen. From a public policy perspective, there can be little justification for funding schools at substantially different levels. This seems especially evident when it is realized that all schools, regardless of their resources, are expected to have their students reach the same academic outcomes as outlined in the state benchmarks and assessed through the Michigan

Educational Assessment Program. Students in District M don't have the same learning opportunities as students in District S because the districts are funded at different levels.

District M receives the minimum amount of funding from the state of Michigan. If this amount of funding were adequate, then it would be reasonable to expect that a majority of students would be passing the state-sanctioned student assessment, which is the Michigan Education Assessment Program (MEAP). This was not the case in District M, where the MEAP passing rate in 2002 was 42.2%. Although this is only one aspect of assessment and funding is only one variable, the state of Michigan funds school districts and then determines whether each school district is successful, using the results from the MEAP test. Perhaps the minimum per-student foundation grant for every school in the state of Michigan should be what is received by District S, where the MEAP passing rate in 2002 was 62.7%. Adequate funding is admittedly difficult to determine, but the qualitative and quantitative data used in this study demonstrate that the per-student grant foundation received by District M is not adequate.

Many politicians seem convinced that more money is not the answer to improving achievement and that if given more money, districts would not spend it on instruction or for those things that research shows improve student achievement. Clearly, in this small, limited study, additional revenue was used to enhance learning opportunities for children. Students in District S were offered richer literacy experiences, especially in the lower grades, and many more advanced placement, foreign language, music, and art courses, as well as more athletic and extracurricular opportunities. And possibly most important, District S demonstrated a greater ability to support continued teacher learning and encouraged teachers, through financial benefits, to pursue graduate degrees. Each of these

areas points out that minimum-funded districts, like District M, are at a distinct disadvantage. And if school districts were business corporations, then those like District M could be blamed for things such as poor management, inferior quality, or poor workmanship and discounted as insignificant and immaterial. But District M is not a business. It is an organization that is expected to provide a quality, adequate education for every child who enters its doors. The education that the children of District M receive must encourage them to be positive, contributing members of society and capable of competing in a global marketplace. The quality of future lives can be influenced through education, and it is apparent that the students in District M are already at a disadvantage.

In summary, funding appears to be important in regard to what is ultimately provided for students in the way of opportunities to enhance learning. In addition, public policy discussion must continue on how to best ensure that all students receive the funding necessary for them to achieve the state academic standards.

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APPENDICES

Appendix A: 2002-2003 Teacher Salary Schedules, Districts M and S

District M

Step	BA	BA+18	MA	MA+15
1	28,592	29,736	30,881	32,024
2	29,736	30,926	32,115	33,304
3	30,881	32,115	33,351	34,585
4	32,024	33,304	34,585	35,866
5	33,168	34,495	35,819	37,146
6	34,310	35,683	37,056	38,429
7	35,454	36,872	38,291	39,709
8	—	38,062	39,526	40,991
9	—	39,252	40,762	42,271
10	—	40,737	42,305	43,872
11	—	42,225	43,850	45,474
12	—	44,009	45,702	47,394
13	—	45,793	47,554	49,316
14	—	47,577	49,407	51,237
15	—	49,660	51,570	53,479
16	—	51,442	53,423	55,400
20	—	52,471	54,491	56,508
25	—	52,995	55,036	57,074

District S

Step	BA	BA+18	MA	MA+15	MA+30
1	32,392	33,687	34,659	35,955	37,898
2	34,011	35,307	36,441	37,736	39,680
3	35,631	36,926	38,222	39,518	41,461
4	37,250	38,546	40,004	41,299	43,243
5	38,870	40,166	41,785	43,081	45,024
6	40,489	41,785	43,567	44,862	46,806
7	42,109	43,405	45,348	46,644	48,587
8	43,729	45,024	47,130	48,425	50,369
9	45,348	46,644	48,911	50,207	52,150
10	46,968	48,263	50,693	51,988	53,932
11	48,587	49,883	52,474	53,770	55,714
12	50,207	51,503	54,256	55,552	57,495
13-14	51,827	53,122	56,037	57,333	59,277
15-16	51,827	54,742	57,819	59,115	61,058
17	51,827	56,361	59,601	60,896	62,840

Appendix B: Human Subjects Committee Approval



EASTERN MICHIGAN UNIVERSITY

May 21, 2008

Mr. Michael Korpak
Department of Leadership and Counseling

RE: An analysis of spending patterns in dissimilar revenue school districts in the State of Michigan

The Human Subjects Institutional Review Board (HSIB) of Eastern Michigan University has granted approval to your proposal: "An analysis of spending patterns in dissimilar revenue school districts in the State of Michigan".

After careful review of your application, the HSIB determined that the rights and welfare of the individual subjects involved in this research are carefully guarded. Additionally, the methods used to obtain informed consent are appropriate, and the individuals are not at a risk.

You are reminded of your obligation to advise the IRB of any change in the protocol that might alter your research in any manner that differs from that upon which this approval is based. Approval of this project applies for one year from the date of this letter. If your data collection continues beyond the one-year period, you must apply for a renewal.

On behalf of the Human Subjects Committee, I wish you success in conducting your research.

Sincerely,

Dr. Patrick Mslin
Administrative Co-Chair
Human Subjects Committee

CC: Dr. Steve Konecky, Faculty Co-Chair
Dr. William Price