An analysis of public school financial allocation policy alternatives supported by selected education groups in Iowa

James Richard Scharff
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An analysis of public school financial allocation policy alternatives
supported by selected education groups in Iowa

by

James Richard Scharff

A dissertation submitted to the graduate faculty
in partial fulfillment of the requirements for the degree of
DOCTOR OF PHILOSOPHY

Major: Education (Educational Administration)

Major Professor: Wm. K. Poston Jr.

Iowa State University
Ames, Iowa
1998

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This is to certify that the Doctoral dissertation of

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For the Major Program

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For the Graduate College
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CHAPTER 1. INTRODUCTION

Introduction

Funding of the public schools in the state of Iowa is facing an uncertain future as the current formula is set to expire. July 1, 2001 is set as the date for repeal of Chapter 257 of the Code of Iowa. Approximately one-half of most local property tax assessments and over one-third of the state of Iowa general fund appropriations are directed to the support of our K-12 public school system (39.1% of the State of Iowa General Fund Appropriation as identified by the Annual Condition of Education Report by the Iowa Department of Education, 1996c). The citizens of our country contribute approximately 4.4% of their personal annual income to public schools with data suggesting that real increases for schools over a decade typically have increased at a rate greater than inflation (Odden & Picus, 1992). These significant financial factors will be brought into more focus and become topics of public debate and discourse in the near future as the funding issue begins to receive additional media attention. In order that a prudent fiscal policy evolve from the political discussions, it is imperative that valid information be included in the process to consider the long-term policy implications of each alternative that may be proposed.

School finance discussions have traditionally focused on equity issues of equal spending per pupil and equal taxation rates. Increasing attention has been given to the productivity of education with politicians wanting to know how much money it is going to cost to accomplish given educational goals. This will force school finance beyond the traditional emphasis on numbers and into legal and political domains. Political activity has previously focused on more regulations to increase standards, graduation requirements, teacher licensing requirements, and the like, all of which are readily and easily measured (Odden & Picus, 1992). This is currently changing to a more generalized challenge to meet broad goals and expectations, items not easily measured by standardized testing.
School finance has been and will continue to be a balance of the politics of getting a school finance bill through a legislature within the restrictions of state and local budgets with the resulting policy normally a compromise package (Odden & Picus, 1992). Policy issues may also be discussions of how to utilize funds effectively and efficiently rather than merely how to raise more funds (Odden, 1992a).

From the earliest days of our country, responsibility for supervising the public education system fell to the states with the majority of funding an obligation of the local citizenry. The result of funding by local citizens was a system of public schools that varied widely in terms of the funding to provide staff, curriculum offerings, and facilities. The money to operate and provide for the education of a community's youth depended primarily upon the wealth and willingness of the voting citizens of the community.

The disparities became of such a magnitude by the early twentieth century that public policy and education proponents began to develop new methods of funding to assist in balancing some of the gross inequitable situations that existed. It was during this time that the original concepts of the foundation formula, power equalizing, and similar plans were developed (Augenblick, 1991; Odden, Busch, & Hertert, 1996). A lull in the attention to funding of public education was then experienced as the nation focused energies on surviving the Depression of the 1930s, World War II, and the Korean Conflict.

An attitude of rebellion, demands by special interest groups, and challenges to “the system” began in the 1960s. Federal legislation such as the Civil Rights Act of 1964 was one of the outcomes of the promotions by special interest forces. Considerable litigation in state courts was begun during this period with many of the cases centering on funding equity between school districts within a state. The emphasis of these cases included an interest in fairness and equity for the poor and underprivileged as their educational opportunities were often significantly less than those of students living in more affluent school districts. Nearly all states made adjustments to their public
school funding arrangements during the 1960s and 1970s (Fulton & Long, 1993).

The 1983 *Nation At Risk* report revitalized the public school funding issue by indicating the public schools were less than optimal due to inadequacy of funding, poor instructional methods, and technology deficiencies (Augenblick, 1990). The impact on schools was renewed state court litigation that focused on the adequacy of funding for the public schools in a state. The finance formulas in the states of Kentucky, New Jersey, and Montana were declared unconstitutional as not meeting the contemporary understanding of equity and adequacy necessary to provide the educational programs envisioned in those states (Whitney, 1993).

As can be implied from the preceding paragraphs school finance reform in this century has been called a model of “punctuated equilibrium”. This occurs when funding policy is relatively stable for long periods of time and then short bursts of rapid, sometimes unpredictable change occur (Vergari, 1995). Iowa is one of a very few states that has not experienced school funding related litigation (Olds, 1994). A review of the regular adjustments made to the Iowa funding legislation verify that Iowa has not ignored the issue of responding to the changing needs of the public and the funding of public schools with a track record of regularly addressing issues.

As the legislative mechanism begins to address the school funding legislation prior to the 2001 sunset date, it is appropriate to consider that school finance structures are designed to:

1. Compensate for varying amounts of local tax incapacity.
2. Reduce disparities in revenues per pupil.
3. Allow for local decision-making regarding spending.
4. Control local and state costs to reasonable amounts.
5. Increase state aid to enough districts to provide a majority vote in both houses of a state's legislature for support.
6. Encourage efficiency and effectiveness in school operations (Odden & Picus, 1992)
Challenges that face legislators include balancing the competing forces of complicated and conflicting economic values, social philosophies, and political interest group positions while retaining a focus on the state responsibility for assuring that adequate educational programs are available for all students in the state (Eaton, 1992; Pierce, Garms, Guthrie, & Kirst, 1975). Politicians also understand that the public is demanding more performance if more dollars are going to be provided (Whitney & Crampton, 1995) and that taxes, for revenue and distribution, contain many closely and interrelated factors that make the decisions complicated and nearly impossible to improve one area without making another worse (Odden, Busch, & Hertert, 1996). A temptation is to look at another state's funding laws and adapt the best portions of it to Iowa and yet lawmakers have no reason to believe that one state's system would work in another state (Augenblick, 1991).

As final votes are cast on the approval of a funding formula, the legislators are cognizant of a common complaint that formulas can easily become too complex and that which is difficult to understand is not trusted (Augenblick, 1990). The challenge for policymakers is to arrive at a formula or process that will respond to the known needs and issues and yet be sufficiently straightforward to be understood by the general public.

A frustration felt by public school officials for many years is that legislators seem more interested in getting the most aid for the schools in their districts rather than focusing on what is best for children (Freeman, 1960). The reverse of that point confronts lawmakers as they work to understand the implications of a current or proposed piece of funding legislation. They receive inconsistent feedback from those that are charged with implementing the laws as school superintendents cannot agree among themselves and do not present a cohesive force for reforms to legislation (Hirth, 1993). One of the possible reasons for the seeming inconsistency is that superintendents often perceive their function as a parochial spokesperson for their particular board, community, or district rather than as spokespersons for the concept of public education. As the needs and issues can be expected to vary between districts, it
should be of little surprise that these public school chief executives often speak with less than a uniform collective voice.

Statement of the Problem

The present Iowa public school funding formula will sunset in the year 2001 with the goal that the 1999 General Assembly enact a new formula to take effect for the 2000-2001 school year (Obradovich, 1997).

Iowa legislators will be faced with the policy questions and challenges similar to those addressed in prior years here and in other states. The issues include whether to preserve the status quo and deal with the known problems or pass legislation that addresses specific issues and deal with the sometimes unpredictable impact. In addressing reforms legislators are often plagued with the concern there will not be assurances that changes will mean real improvements (Whitney, 1993). There are critics that feel finance systems work in opposition to change (Augenblick, 1990) and many policies seem to work at cross purposes and lower the accountability and effectiveness at both levels (The Finance Project, 1995a). An Iowa example of policies working against one another is allowing some whole grade sharing or massive tuition exchange arrangements to continue and yet working to equalize property taxes. The United Community School tuitions its students to Boone Community Schools with the United students enjoying the instructional program opportunities provided by the larger school district. The 1997-1998 property tax rates for the two districts are: Boone: $17.47663 per $1,000 assessed property value, United: $9.68070 per $1,000 assessed property value (Iowa Association of School Boards, 1997). There is no apparent incentive for the United district taxpayers to consider a reorganization vote when one considers the property tax comparison, and yet all students in the system are receiving the same educational opportunities and benefits.

The 1997 Republican chair of the House Education Committee has identified four weaknesses of the current system as special education,
transportation, infrastructure, and rising/declining enrollment (Obradovich, 1997). Possible concerns with the above four areas could include:

- Special education programs in Iowa public schools have a history of amassing increasingly large deficit balances each year with a pattern of increases in the statewide deficit balance from $3,386,842 in 1987-1988 to a deficit of $21,256,507 for the 1995-1996 school year. (Iowa Department of Education, 1997b). Current legislation transfers the majority of this deficit to additional local property taxes. This is not a desirable approach from many lobbying interests.

- Transportation expenses vary widely from school to school. Information taken from the 1994-95 Iowa Public School District Annual School Transportation Data provided by the Iowa Department of Education verifies the issue mentioned above. Dexfield Community Schools was identified as having the highest cost per pupil transported for 1994-95 at $883 and St. Ansgar the lowest in the state at $111 per pupil transported. Calculating the cost based on certified enrollment generated $212 for Dexfield and $89 for St. Ansgar (all calculations included the cost of route and non-route expenses). The point is made that one school enjoyed a $123 per certified enrollment pupil advantage in available funding for instructional purposes based solely on differing transportation requirements. Education for all youngsters is to begin at the schoolhouse door with a $123 per student advantage illustrated in the above comparison.

- A recent report by the U.S. General Accounting Office estimated that the cost to bring the public schools in the country up to a reasonable level of condition would be approximately $120 billion. From 29% to 39% of the buildings surveyed in the country were identified as needing major renovation or replacement (Moseley-Braun, 1997). There is no reason to believe that the condition of Iowa’s K-12 school buildings are in any better overall condition than those in the remainder of the country. The article by Moseley-Braun also indicated that federal legislation will be considered in the near future that could provide federal dollars to assist states and local communities in upgrading or replacing their public school buildings. With these thoughts in mind it is most appropriate that the infrastructure needs of our public school system be reviewed.

- Iowa has one “pupil driven” formula which translates to the number of students served by a district directly determining the amount of funding to be made available to that school district through the state formula. Each year there are school districts that decline in enrollment and depend upon the legislated assurance that no district will receive less money in the upcoming budget year. There are other school districts that have significant enrollment increases to the point that they appeal to the School Budget Review Committee for permission to levy additional local property taxes to cover the staff and supply expenses to accommodate the increased
student numbers. The current formula is providing funding for students that may not exist and simultaneously is not responding to the needs of districts experiencing increasing student enrollments.

The challenge to meet the diversity of needs within the state through a single legal mechanism is obvious. Legislators understand that if we are to function under the basic economic principle of living within current revenues that policy decisions will involve trade-offs between ideological desires and political realities (Hickrod, Arnold, Chaudhari, McNeal & Pruyne, 1993; McGuire, 1994).

Hickrod suggests that legislators do not have the luxury of time to read scholarly journals and that constituents must communicate with them in understandable terms (Hickrod & Others, 1993). Other special interest groups have equally strong convictions about a legitimate claim on the support provided by public funding (Freeman, 1960) and thus it is critical that supporters for public education clearly make a case to preserve and enhance funding for quality public education programs.

The problem of this study is how to provide selected Financial Allocation Policy Alternative (FAPA) information to the legislative body that will clearly identify the areas that are preferred by educational groups. Such preferences need to be identified by educational groups in terms of which Financial Allocation Policy Alternatives are desired to continue in their present form and those in need of change. This study provides information needed by the policy makers to assist in understanding the priorities as perceived by those who must implement resulting funding legislation.

Purpose of the Study

The purpose of this study is to provide information, assistance, and points of insight to assist policy makers and legislators as the decision making process progresses. The legislators are regularly presented with suggestions regarding the methods of raising taxes but seldom receive information relative to the long-term institutional and program implications of legislative funding
action. This study will not address methods of taxation but is designed to address the support for preservation of the status quo or interest in pursuing changes in the present funding policies of selected financial allocation policy areas. Results will include the perspectives of school superintendents, business managers, board of education members, and teachers. These educational groups are charged with the efficient delivery of instruction as outlined in legislation with the anticipation that areas of the funding policies will be universally supported by at least a majority of those studied.

Research Questions

The study was designed to answer the following questions.

**Question 1:** Do perceptions as measured by the FAPA instrument differ within the responsibility group?
**Question 2:** How much support for change exists between the seven FAPA categories?
**Question 3:** Is there a congruent response across the three efficacy levels of satisfaction?
**Question 4:** What level of agreement is there across the responsibility groups in the priority rankings of the FAPA criteria?
**Question 5:** How do the levels of perceived support for change differ within the board of education group when the demographics of size of resident district, geographic location of resident district, and respondent’s total years of experience are considered?
**Question 6:** How do the levels of perceived support for change differ for superintendents when the demographics of size of resident district, geographic location of resident district, and respondent’s total years of experience are considered?

Hypotheses

The following hypothesis statements, presented in null form, were developed to allow quantitative testing of the previously stated questions.
Hypothesis 1: There is no difference in the support of each FAPA criteria within each of the responsibility groups.

Hypothesis 2: There is no difference in the mean 'support for change' scores between the seven FAPA categories.

Hypothesis 3: There is no difference among the three efficacy levels of satisfaction.

Hypothesis 4: There is no positive correlation in priority rankings of the FAPA across job responsibility groups

Hypothesis 5-a: There is no difference in the support for change among the board of education group when considering size of resident district.

Hypothesis 5-b: There is no difference in the support for change among the board of education group when considering geographic location of resident district.

Hypothesis 5-c: There is no difference in the support for change among the board of education group when considering the respondent's total years of experience in the current responsibility group.

Hypothesis 6-a: There is no difference in the support for change among superintendents when considering size of resident district.

Hypothesis 6-b: There is no difference in the support for change among superintendents when considering geographic location of resident district.

Hypothesis 6-c: There is no difference in the support for change among superintendents when considering the respondent's total years of experience in the current responsibility group

Rationale for the Study

The importance of the development of a sound funding mechanism is critical to the educational future of the public school students in Iowa. A preliminary search of the literature has identified studies that discuss the concepts of vertical and horizontal equity in regard to generating the appropriate dollars to meet a state fiscal goal. Many of these studies have been initiated in response to litigation or the threat of litigation charging inequitable
treatment in regard to the distribution of funds to the public schools in their states. These studies often also include detailed proposals and analysis to arrive at fiscal neutrality in regard to a concern for taxpayer equity. Calculations can be arrived at by special interest groups or the legislative fiscal bureau to achieve the desired legislative tax criterion.

Few studies have been identified to date that take a proactive approach to the funding challenge or attempt to address program related issues in connection with a funding reform. Those studies reviewed have been of an ex post facto design to identify the impact of a change in legislation or the threat of legislation on a single area (open enrollment, instructional support, etc.) (Hirth, 1993; Kjergaard, 1993; Woodby, 1993).

This study is intended to be a proactive effort to identify selected fiscally related program issues which public school educator influence groups can collectively support. This mutual support for identified funding areas/issues can serve an honorable and important purpose. It is the desire of this researcher that state level legislators, policy makers, and lobbyists utilize various elements of the findings as the deliberations are begun to address a replacement funding system for the public schools.

The importance of giving consideration to the perspectives and insights of the fiscally sensitive school groups as identified in this study is often overlooked in the legislative or rule making process. It is precisely these groups that must implement whatever policies, fiscal or otherwise, are legislated. Those who must operationalize policies and directives would seem appropriate resources to assist in the development phase of a funding policy formulation. Who better to identify the criteria and characteristics that will make a difference in the efficient and effective operation of the public schools in the state?

Assumptions of the Study
1. Respondents are interested in the topic and will provide honest responses to the survey statements.
2. Respondent accurate understanding of the terms and phrases used in the survey instrument are assumed in the study.
3. Respondents are assumed to be typical of their corresponding groups.
4. It is assumed that the FAPA represent the range of feasible options and alternatives available to legislative policy makers.
5. It is assumed that the positions expressed by the respondents can be quantified and measured.

Delimitations of Scope of Investigation

The data represent perspectives of the selected respondents at a point in time and may change as time and new legislation occur. The responses are related to opinions and perceptions of interested and knowledgeable individuals but do not represent quantifiable data to use in evaluating an impact of any specific funding mechanism.

The topics and issues of the study are limited to those of specific interest areas identified as pertinent to Iowa public schools and should not be generalized beyond that limit.

Only public school groups were included in this study with the acknowledgment that there are many other groups in the state of Iowa that would have an interest in public school funding. These other groups may have significantly different perspectives on the same issues but were excluded due to time and economic limitations.

The study was limited to the perceptions of selected education groups concerning funding allocation policies. The study did not include a calculated or proposed amount of funding or source of public funding for schools.

Definition of Terms

FAPA is the acronym used in this study and stands for “Financial Allocation Policy Areas and Alternatives”.

Responsibility Group refers to the four selected job related responsibilities in the public school. They are superintendent (SUPT), board of education
member (BDED), business manager or board financial secretary (BSMGR), and teacher (TCHR).

Demographics in this context refers to the defining traits used to categorically describe the respondents. They include:

- Respondent age
- Size of system of respondent (Current K-12 certified enrollment of resident Iowa public school district)
- Respondent total years of experience in current responsibility group
- Geographic location of the majority of respondents resident public school district by sector
- Respondent gender

Criteria refers to the 30 specific response statements in the survey. There are from 3 to 6 statements within each of the seven FAPA categories.

Categories refers to the seven FAPA categories as determined by the expert panel. They include:

- Categorically funded services and programs
- Early childhood programs
- Fairness and adequacy of funding
- Infrastructure
- Predictability of funding
- Special education
- Unforeseen or emergency needs

Efficacy level of satisfaction refers to the desire for the range of interest in maintaining the current funding system or willingness to consider a change in the current system. The three levels of criteria are to preserve the status quo, willingness to consider some moderate change, or desire for significant change.

Chapter Summary

The primary purpose of this chapter was to introduce some of the basic issues and concerns associated with the July, 2001, sunset date of Iowa’s public school funding legislation. Brief discussion included the political
realities and implications involved in a revision or continuation of legislation that carries the degree of financial and emotional significance as do those issues involving massive amounts of tax dollars.

Evidence was provided to highlight some of the basic inequities of funding distribution and imbalance in the current funding mechanism. Issues of equity and adequacy of funding are primary elements of the discussion and deliberations that surround this subject. Examples were provided to highlight a few of these issues as they presently occur in Iowa's public schools.

The chapter concluded with the research plan to determine the perspective that selected public school groups (board of education members, business managers, superintendents, and teachers) possess with regard to the current funding laws. Their perspective will be gathered to provide information, assistance, and points of insight to assist policy makers and legislators with regard to continuing the current laws or their support for changes to the existing funding legislation.

Seven Financial Allocation Policy Areas (FAPA) were identified by an expert panel and developed into a survey format to solicit responses from a representative sample of the selected groups. The data will be collected using a five point Likert response and quantitatively analyzed for indicators of support for maintaining the status quo or support for change. Specific suggestions regarding the details of the funding formula will not be pursued as this is perceived to be the domain of others; such as the legislative fiscal bureau and specialized tax consultants.
CHAPTER 2. REVIEW OF LITERATURE

Introduction

This chapter provides a foundation to understand the fundamental concepts underlying the development of public school funding legislation. A brief study will also be provided to compare the funding legislation concerning the FAPA categories in selected states. These issues will be compared to those same issues in Iowa to more fully understand the unique approaches various states have taken to address the public school funding responsibility.

Sources

A search for related literature and similar studies was made through Dissertation Abstracts International, Education Resources Information Center, Education Commission of the States, and North Central Regional Educational Laboratory. Terms used in the search process included combinations of school, educational, fund, funds, funding, finance, fiscal, policy, and funding related to the seven FAPA topics. While there were many articles and research studies relating to the general topics they were not germane to the perspective of this study.

The studies found in this search were generally ex post facto studying the impact of a particular legislative item. They were also typically surveys of school superintendents with no reported comparative input from members of the board of education, business managers, or teaching professionals. Examples include Hirth’s study of superintendents’ views of Tennessee reforms (Hirth, 1993), a study of school superintendents concerning open enrollment in Ohio (Woodby, 1993), and a 1993 survey of superintendents’ attitudes toward Iowa’s instructional support program (Kjergard, 1993).

As a result of the paucity of literature directly relating to this study, a telephone conversation with well-known expert in school finance, John Augenblick of Denver, Colorado, was conducted on June 5, 1997, to identify additional written reference sources. Due to the unique nature of this study
the respondent was unaware of any such printed documentation but did provide the names of individuals in states that had recently undergone revisions of their public school funding laws. These individuals were contacted to determine similar approaches that may have been undertaken during the school funding legislation revision process in their states. They also were interviewed with regard to the seven FAPA characteristics addressed in this study's survey instrument.

The individuals contacted include:

Byron Pendley, Public School Finance Director
Colorado Department of Education
201 East Colfax Avenue
Denver, Colorado 80203-1799
telephone 303-866-6845
interview conducted on August 28, 1997 2:30 p.m. CDST

Dale Dennis, Deputy Commissioner
Division of Fiscal Services & Quality Control
Kansas Department of Education
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interview conducted on August 19, 1997 9:00 a.m. CDST

Tom Willis, Associate Commissioner
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interview conducted on August 20, 1997 1:30 p.m. CDST

Marilyn Langley, Deputy Superintendent
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interview conducted on September 5, 1997 10:30 a.m. CDST
The review of literature begins with a brief history of the funding of public schools in the United States. It is included to build an understanding of why there is such a diversity of public school funding approaches across the nation. The basic issues confronting legislators and policy makers in the funding of public schools is addressed in the second section of the chapter. The final section of this chapter is devoted to comparative responses to the seven Financial Allocation Policy Areas of Iowa and four states that have recently undergone a major funding formula revision.

**History of Public School Funding**

**Early years**

Most studies of this nature begin with a historical review to better understand the origins and development of existing practices and policies. As many history texts tell us, the function of education in the early days of our country was largely a family and church responsibility. The 1747 “Olde Deluder Satan” law in Massachusetts was a response to concerns about the moral welfare of the youngsters in the colony. Our early statesmen, most notably Jefferson and Madison, were very concerned about formal education of the general public for the sake of preservation of the fledgling democracy (Alexander & Alexander, 1992; Fenstermacher, 1994). It was understood that sound decisions for the sake of the country depended upon a knowledgeable citizenry to make prudent judgments in voting and governing.

The New England states had a church-dominated education system often financed through religious assessments or forced tithing to the church to pay for the church-operated schools. Taxation in the New England area was quite broad with revenue being raised by taxing personal property including possessions such as livestock and slaves. This was consistent with an economy and philosophy that did not favor vast property holdings. As a result, they developed taxation of land and houses to gather a tax base that would yield revenue from every person based on the forms of wealth making up the community.
The middle colonies were populated by multiple religious denominations and, therefore, allowed little sectarian regulation. The South depended upon tutors of the wealthy white children or private schools operating on a tuition basis and perceived public education as existing for the benefit of paupers and orphans with no real control or tax support from the state.

Due to the agricultural base and wealth being held by a few people, the southern economy was based more on revenue from exports and imports than income earned by the masses. Many colonies also levied poll taxes where no one was able to escape taxation, with some areas taxing expected income level based upon a man's occupation (Alexander & Alexander, 1992; Thompson, Wood, & Honeyman, 1994). In all situations the funding source for public education was definitely an individual or local concern rather than a state or federal matter.

The responsibility for supervising education was left largely to the states. Our founding fathers desired the least amount of federal government possible. A common federal system would have only added another argumentative element to inhibit unifying the country. The above attitudes and deep historical roots may be argued to have a carryover effect on our present day structure and organization.

During the early years in our country's history the concept of paying for government services was based upon the "benefit theory" (Balinky, 1955) where the taxed expected to receive some form of direct benefit from their government for taxes paid. The majority of taxes during this period were raised from land owners as that was the most readily identifiable source of wealth. It is important to be reminded that oppressive taxation by the English Crown was one of the causes triggering the revolution for independence in the 1700s. Even though people resent taxes, every civilized nation in history has devised some method to transfer funds from the private or individual sector to public treasuries for general citizenry use. We must also be reminded that taxpayers bear the final costs of our schools with varying degrees of enthusiasm (Thompson, Wood, & Honeyman, 1994).
Developing period

The years of 1825-50 are seen as a transition period from church dominated to public operated schools in much of the country. During this period the states had the responsibility for organizing and supervising the public or "common schools" although most of the funding continued to be raised from local resources. This "common school" concept, supported and promoted by educational pioneers such as Horace Mann, proposed a basic education for all citizens through what we now perceive as the elementary grades and was becoming reasonably well-established throughout the country during the first half of the 19th century. Taxation to pay for this much needed public education was greeted with much controversy and contention (Alexander & Alexander, 1992).

A combination of the wave of European immigration and the development of factories during the industrial revolution of the mid to latter 1800s had the next significant influence on the education system. A combination of forces joined to expand the public education systems in the cities. The forces were factory owners desiring a more well-trained workforce and cities needing to cope with the tremendous increase in numbers of immigrants requiring attention and care. It was during this period that the concept of the "welfare theory" began to evolve. This concept suggested that the primary function and responsibility of government was to promote the general welfare of the citizenry for the improvement of our society. At the same period schools were pressured to adopt an industrial model of organization based on the efficiency principles and approaches utilized in the factories of the 1800s for cost-effective development of the product of education or learning (Rippa, 1992).

It was during this period that the cost of government services was increasing beyond the level that only the land owners could financially support. Suffrage for male non-owners of real property also became the norm during the 1800s. Both of the above factored into the levying of taxes based on an "ability-to-pay" approach (Balinky, 1955). There were many citizens possessing sources and indicators of wealth (stocks and investments) that
were not as readily identifiable as land, farms, and buildings. Taxes were drawn not only from those with the ability to pay but the concept of progressive taxation was introduced.

Although the nature and structure of the public school systems were dramatically changing during the first 150 years of our independence from Britain, the source of financial support remained primarily with the local community. As a result, the per pupil expenditures and thus, the quality of schooling, varied widely dependent upon the wealth and support of the local citizenry. The concept of borrowing to finance public education facilities was introduced in the late 1800s and enabled school districts to provide needed educational spaces (Balinky, 1955). From the earliest days until the beginning of the current century, funding of the majority of public schools in the states depended upon the wealth of the local citizens and their willingness to pay for the costs of public schools. This provided for a wide disparity in programs and facilities (Augenblick, 1991; Odden, Busch, & Hertert, 1996; Thompson, Wood, & Honeyman, 1994).

A school funding reform period in the early 1900s included the fundamental concepts of the minimum foundation plan as developed by Strayer and Haig for the State of New York. A minimum foundation program sets an expenditure level per pupil, hence minimum foundation, with the intention that this fiscal “foundation” level of funding will provide an instructional program that meets minimum educational standards. The basic concept included the premise that one tax rate is assessed in every district with the difference between the dollars raised via local taxation and the total per pupil foundation level cost is to be provided by the state. Several political decisions must be made by the state including the level of foundation to be established and the uniform tax rate to be assessed in each district. Early foundation programs had no growth or inflation factor which quickly rendered them inadequate, but modifications to the concept over the years have seen the concept continue in use (Augenblick, 1991; Odden, Busch, & Hertert, 1996). The nation became focused on survival needs with the depression of the 1930s,
World War II of the 1940s, and the Korean Conflict of the early 1950s. During this rather long period little mass public attention was given to the issue of public school funding.

**Contemporary events**

A national atmosphere of rebellion and challenge to the "system" began during the 1960s. Racial civil rights activities and demands for the rights of various special interest groups such as the needy and handicapped were addressed by the social interest forces. Advances in the rights of these "suspect" groups were achieved in large part through the courts. A result of these lawsuits and interests in fairness and equity for the poor and underprivileged brought to light the imbalance in educational opportunities found in many schools. The inequitable opportunities were correlated to wide variances in per pupil expenditures. The tactic pursued to correct these imbalances was to appeal to the wisdom of the courts for rulings that would impact all schools (Alexander & Alexander, 1992).

A landmark case was *Serrano v. Priest*, a California Supreme Court case that ruled in favor of equity. Local school district wealth was ruled to be a determiner of the level of educational expenditures and therefore violated the court's concept of fiscal neutrality. This was the first state public school financing system declared unconstitutional and began a flurry of activity with eleven other state supreme courts ruling their funding systems unconstitutional as depending too heavily on local property wealth and unequal distribution of funds for K-12 public schools (Dayton, 1993, Fulton & Long, 1993, Augenblick 1991).

Proponents of per pupil spending equity were pleased with the litigation results in several states and thought it would be more efficient and effective to receive nationwide support through the U.S. Supreme Court. The 1973 *San Antonio v. Rodriguez* case centered around the Equal Protection Clause of the 14th Amendment to the U.S. Constitution and the argument that all citizens enjoyed a fundamental right to equal educational opportunities. The court did
not support that argument and deferred to state legislative deliberations with regard to school funding. This decision effectively ended attempts for equity mandates being processed and defended through the U.S. Supreme Court (Dayton, 1993, Hackney, 1993).

The focus shifted back to the state court systems after *San Antonio v. Rodriguez* with over 250 published opinions on the issue since 1970 (Dayton, 1993). Nearly all states made revisions to their public school funding formulas during the early 1970s to respond to the equity concerns of the time. There was, and continues to be, considerable variance as 50 state courts interpret 50 different state constitutions on the topic. Specific patterns are understandably difficult to identify (Fulton & Long, 1993).

Following the litigation activity in the 1970s the interest and attention on school funding was relatively quiet until the late 1980s. Reasons for renewed interest are credited to response to the 1983 *Nation at Risk* report and a change in the demographics and economy from the time most funding formulas were developed. The *Nation at Risk* report caused more attention to be directed toward adequacy of funding, instructional methods, and technology as well as the historic concern with equity of funding (Augenblick, 1990). This renewed interest was cause for legislative increases in state program mandates for public schools and another surge in litigation (Augenblick, 1991). Twelve state supreme courts have declared their finance formulas to be unconstitutional as not meeting the contemporary understanding of equity and adequacy (Finance: Litigation-final rulings - state supreme courts, 1997). A public perception of inequity in educational funding and program effectiveness continues to drive the legislative initiatives to respond to these issues (Garris & Cohn, 1996; Whitney, 1993). Less charitable sources would suggest that political or fiscal agendas may be responsible for a portion of the controversy surrounding school finance (Pipho, 1997).
Basic Issues of Public School Funding

**Equity**

Financing public education has come to be viewed as an issue apart from the function of teaching and learning with recent litigation focusing on the concept of equity. One common, though simplistic, definition of equity is "fairness". Equity discussions include several related concepts such as horizontal and vertical equity, and equity for whom, the student or the taxpayer? (Addonizio, 1991). The understandings of equity continue to expand as time passes with horizontal and vertical equity viewed from the student perspective.

Horizontal equity in its most basic form means the same amount of funding spent per child regardless of where that child lives or the background from which he/she is reared. This is actually equal spending per student, and although it is correlated in the public mind to equal opportunity, recent studies have determined that to not be necessarily the fact (Rossmiller, 1994). The majority of public school litigation of the past twenty years has centered around the concept of horizontal equity, or equal opportunity, for students.

Vertical equity is understood as treating unequals unequally for the purpose of providing comparable opportunities for success. Student weighting systems have been used to provide vertical equity for differential treatment of students in different circumstances. We commonly think of this in terms of providing for special education services and those with needs for bilingual services. In addition, these concepts can be implemented for students in schools experiencing diseconomies of size and demographic or geographic created special needs (Verstegen, 1988). Vertical equity describes how individuals in different situations are treated and is much more difficult to determine than horizontal equity as vertical equity involves a value judgment (Odden, Busch, & Hertert, 1996).

Many studies have shown that schools with either extremely small or extremely large enrollments are more costly to operate on a per pupil basis than those in the enrollment mid-range. Some states provide differential
funding mechanisms based on exceptional transportation needs while other states provide differential funding for students in the lower elementary grades and those in the high school grades.

Equity may also be considered from the taxpayer perspective. A property owner in a district with a relatively low total school district property value will pay higher property taxes to support the school district than an owner of a comparable property in a similar size school district with a higher total school district property value. It is this unequal treatment of equal properties issue that taxpayer rights groups bring to bear on the politicians for relief.

There are many reasons as mentioned above to allocate additional moneys based on student or district characteristics. This may be justified vertical adjusting and even become required as a matter of equity (Odden, Busch, & Hertert, 1996).

**Equity vs. liberty/choice**

Our historic concept of democratic schooling is that schools may be different but are not to be of greatly unequal quality. The litigation waves of the past two decades, the response to the 1983 *Nation at Risk* report, and the changing demographics of the students entering the school doors with ever greater needs have generated a dissatisfaction with and scrutiny of the public school systems in our country. The current pressure for increased choice was generated by the business community promoting competition between schools for students as the concept of efficiency and productivity are familiar to those with a profit-oriented perspective. Parents have begun expressing the feeling they ought to have some power, right, or *liberty*, in choosing the type and quality of schooling for their children. The proposals for vouchers and tuition tax credits were generally rejected during the 1970s and 1980s but are being received more warmly in the 1990s by politicians and policy-makers (Baker, 1993).

Models of choice currently include open enrollment options to other public schools, post secondary options for upper level high school students, second
chance or alternative schools for returning drop-outs, magnet schools for special student interest areas, and private or parochial schools. As these options are considered we must not only respond to the desires of the parents and business community but also retain the vision of the democratic ideals of education and the concept of equal opportunity for all (Addonizio, 1991).

Policy issues that follow the liberty/choice discussion include debatable points. One of the first questions in the open enrollment area is: How much funding should follow the student? The addition or reduction of one student from a school rarely carries with it the cost variance correlated to that student's total formula dollar value. The range of decisions have included only state aid funding following the student to the total formula cost per student being forwarded to the school of choice. Iowa has elected to transfer the total formula cost per student to the district of attendance for open enrollment students. Critics of the open enrollment option find no evidence that learning is improved for the student or that competition for students has improved the quality of schools and that open enrollment has become yet another sorting mechanism (Baker, 1993).

Another direct funding question is in regard to distribution of categorical dollars. Do the funds remain with the resident district or follow the student? The federal distribution of Title I and Block Grant funding is typically a district determined figure and not associated with particular students. Special education funding in Iowa has been a student specific generating calculation but may change as a currently proposed special education funding proposal would utilize a total census method for funding.

Responsibility for transportation of students to the new school of choice is another issue impacting virtually every open-enrolled pupil. Which district, if either, is responsible for transportation when the decision regarding attendance is a matter of personal preference? The significance of this issue depends largely upon the geographic size and population density factors of the districts involved. The solution in Iowa has been to limit transportation
support to contiguous districts for those families showing financial need as per stipulations in Chapter 282 of the Code of Iowa.

Unlimited open enrollment participation could also have long range impacts on facility planning, construction, and funding. This is yet to be a known concern to any significant degree (Addonizio, 1991).

Post secondary options are normally available to traditional eleventh or twelfth grade students whereby they can enroll in courses at a college, university, or vocational school with the benefit of simultaneously receiving both high school and college credit. The local high school district pays either all or a portion of the tuition cost to the post secondary institution. The student advantages are apparent. Critics point to the inequities for students who reside a great distance from a post-secondary facility. The funding strain to the resident high school district who must pay for the post-secondary course tuition is not offset by the ability to reduce expenditures for the absence of one, or a few, students from a class or two during the school day.

Second chance, or alternative, schools have proliferated in the past twenty years to serve those who have dropped out of the traditional high school system. In addition to the expected funding issues the question has been raised with regard to the maximum age that students should be allowed to attend at taxpayer expense. The discussion ranges from the maximum age of 21 to some supporting vouchers for life-long learning that may be cashed in at any time (Addonizio, 1991).

Whatever the long-term outcome of the current interests and discussion, it is likely that the traditional concept of K-12 public education contained within the walls of the neighborhood school is unlikely to be the future norm. The structure of the public school system has existed for nearly a century with little change while the world has experienced massive adjustments. It is reasonable to expect changes will be limited only by people's imagination.
**Adequacy**

Adequacy typically is in response to how much is enough, or that amount needed to provide a given level of quality. It is often thought of as a state formula that assures sufficient funding for districts to pay for the basic instructional programming. Funding can be equitable without being adequate, but it cannot be adequate without equity unless resources are totally unlimited (Addonizio, 1991, Rossmiller, 1994, Thompson, Wood, & Honeyman, 1994).

For many years a philosophical struggle has taken place as policy makers desire a clear process to identify, or define, what constitutes an “adequate” education. Although a clear answer is not yet available higher academic standards and student expectations are being approved by many states and forcing a pursuit of the issue. Another factor in the search for a more appropriate definition of “adequacy” has been prompted by results of school finance litigation. The goal is to identify what is needed in terms of programming and resources needed by students to reach their academic potential. This is a significant change from the traditional focus on providing arbitrary inputs, such as expenditures per pupil, and expecting a given result (Finance: Core education - determining the cost, 1997). Some states have elected to address the issue via providing fiscal rewards for schools that demonstrate specific performance gains (Finance: Changes in state school finance systems, 1997).

**Efficiency**

The term efficiency is used normally to mean cost-effectiveness, not necessarily the lowest cost (Addonizio, 1991). The 1989 court case of *Rose v. Council for Better Education Inc.* in Kentucky is a most well-known landmark case that helped develop the current understanding of the term “efficient”. The entire state system of public education was declared unconstitutional because inequitable funding created unacceptable variances in offerings and quality resulting in very unequal opportunities for student success, therefore it was not efficient.
The Kentucky supreme court defined "efficient" schools as those where the state legislature was to provide adequate funding to all schools so they were free to all resident children, provided adequate equal opportunities to all, were properly managed, and developed the basic capacities (speaking, writing, social/mental/physical skills, etc.). It became quite clear through this landmark case that efficient schools meant much more than just getting the best buy for the tax dollar (Alexander & Alexander, 1992).

As can be determined from the above brief summary of our nation's history concerning the funding of public education, the issue has been fraught with controversy and change. This could be reasonably expected as the fifty states are each charged with providing and funding the educational system. Diversity in the approaches taken by the various legislatures has occurred with recent litigation efforts indicating a universal "best" solution has yet to be developed.

Recent Comparative State Responses to Identified Financial Allocation Policy Areas (FAPA)

A panel of recognized experts in Iowa public school finance identified seven FAPA areas of interest and importance that should be addressed during upcoming legislative deliberations. This review panel consisted of the chief financial specialist from the Iowa Department of Education, professors of school finance representing Iowa State University and the University of Iowa, a school finance expert from the Iowa State Education Association, a practicing and experienced Iowa public school superintendent, and the most recent past president of the Iowa Association of School Business Officials.

The following sections of this chapter will be devoted to an identification of how the seven FAPA categories were addressed by several states that have recently undergone a major revision of their public school funding formula. The method in which Iowa addresses each area will also be included in summary form for comparative purposes. The information is provided in an abbreviated or summary form with the intricacies and details of each state's
plan requiring considerable explanation exceeding the purpose of this particular review. The purpose of these summaries is for comparison and an appreciation of how each state approaches a particular issue. Reference sources utilized in each of the identified state sections include the Department of Education official identified at the beginning of this chapter for each state. Federal programs will not be addressed as they would be applicable to schools in all states.

**Funding revision causation and methods of revision**

**Iowa**

The public school funding legislation resides in Chapter 257 of the Code of Iowa and calls for this chapter to be repealed as of July 1, 2001. The most recent total revision occurred nearly three decades ago but has seen many minor adjustments and modifications over the ensuing years (Iowa Department of Education, 1996a). The upcoming revision process has begun with the establishment of a legislative study committee and legislator commentary provided indicating support for continuation of the basic formula structure as it is perceived as a basically sound approach. Topics suggested for specific attention and revision have been stated to include districts with rapidly declining or increasing enrollments, special education, transportation, and infrastructure needs (Obradovich, 1997).

**Colorado**

The prior 1988 school funding legislation had become a growing concern due to its inability to respond to concerns of vertical equity between districts. A 1993 study committee including public school district interests identified the issues and concerns with the then current 1988 legislation and convinced the state legislature of the need to revisit the formula. A 1993 action by the Colorado state legislature authorized the formation of a legislative committee to recommend a revised formula to the 1994 legislature for approval. Although public school representatives were not included in the committee membership,
testimony was received from all interested parties during the deliberations. The committee's proposal was enacted and became effective as of July, 1994, with the great majority of revenues to Colorado's 176 school districts provided through the Public School Finance Act of 1994.

**Kansas**

The current funding legislation for Kansas was put in place as of July 1, 1992, replacing an existing formula that had been in place for nearly 20 years. The impetus for the revision came from the threat of a lawsuit brought forward by several coalitions of school districts concerned about the perceived inequities in funding among the public schools in the state. In an effort to avoid a prolonged and costly court case a district judge reached an agreement among the contesting parties that allowed the legislature time to develop a revised formula to address the equity issues and avoid the court process.

A committee was formed by the legislature and governor to develop a proposed formula to be considered for approval by the legislature and governor. Strong, experienced legislative leadership successfully developed the foundation of the current law to address the issues of equity and adequacy of funding across the public school districts in the state. The committee was presented with many studies promoting specific issues and approaches. An editorial aside by Dennis indicated that the reports seemed to be consistent in providing evidence to support the particular perspective of the organization or coalition paying for the study. The revised formula was ultimately reviewed by the state supreme court and found to meet the criterion for constitutionality and has continued for the past five years.

**Kentucky**

The 1989 court case of *Rose v. Council for Better Education Inc.* referenced earlier in this chapter was the direct impetus for a total revision of the Kentucky funding formula that took effect in 1990, replacing prior legislation that had been in force since the mid-1950s. Following the *Rose*
decision the general assembly appointed a task force of legislators and related
tax and finance experts to develop the replacement legislation. Specific efforts
were made to exclude local school district or special interest lobbying groups
from the task force in an effort to arrive at an unbiased result. As all task force
meetings were public meetings, they included opportunity for public input
where all special interests were heard. There has been no challenge to the law
since its enactment and no revisions of substance have been made to the law.

Louisiana

A change in the office of state governor in 1988 brought to that office an
individual interested in addressing some known and identified problems with
the public education funding formula. During the same time period litigation
had been filed regarding inequities and challenges to the funding system.

The combination of these forces led to the formation of a 25 member
committee to study the funding formula. The committee was comprised of
governmental representatives as well as all established interest and lobbying
groups including the National Association for the Advancement of Colored
People, labor unions, the state school superintendent organization, the state
school board organization, and the teachers’ union. The diversity of the
committee found it a relatively straightforward process to identify the issues
and concerns with the current formula.

Resolution of the issues proved to be difficult. The committee identified
the goals of a new formula and sought the services of a nationally recognized
expert in taxation and education issues, John Augenblick, to develop a
formula to meet the identified goals. A significant revision in the formula was
recommended by the consultant and approved by the legislature to become
effective for the 1992-1993 school year. Since that time there have been several
minor adjustments to the details of the formula with the basic structure
remaining intact.
Categorically funded services and programs

Categorically funded services and programs are defined as those in which funding designated to serve those programs may be spent only for the predetermined purposes. State and federal governments commonly provide categorical funding to encourage a particular service that the local district may not provide without financial incentives. Categorical instructional programs encourage different treatment of students and thus violate the concept of horizontal equity (Odden & Picus, 1992).

Iowa

Widely used direct instructional programs currently receiving categorical funding include special education, talented and gifted (TAG), and dropout prevention efforts. Special education fund generation is determined on a weighted student basis with the amount of funding directly related to the identified severity of student disability (Code of Iowa, Chapter 256B.9, 257.31.12, 257.14). The funds are generated as a combination of local property tax and state aid on the same basis as funds raised for “regular” education programs.

The TAG and dropout programs may be eligible for additional “allowable growth” funding (Code of Iowa, Chapter 257.30 through 257.46). Allowable growth programs are those approved by the state School Budget Review Committee (the SBRC is a review panel appointed by the Governor) that may receive funding above that generated by the regular program formula. The local district must provide at least 25% of the allowable growth program cost with the remainder funded by additional property taxes. Limits are placed on the amount of additional funding that may be requested through this method based on a percentage of the district total student enrollment.

Instructional support programs receiving categorical funding include an educational excellence program begun in 1987, commonly called Phase I - II - III, and a 1996 legislative effort to provide funding for technology to all public schools over a five-year period. The Phase programs allocate additional money for teacher salaries (Code of Iowa, Chapter 249A) with the technology funding
to facilitate the use of technology to enhance student learning (Code of Iowa, Chapter 295.2). Funding for both programs is determined on the basis of district student enrollment.

**Colorado**

A form of categorical funding is identified within the total program budget that requires local districts to budget $130 per pupil for materials and supplies, and from $210 to $800 per pupil for capital or insurance reserves or risk management activities.

Categorical programs in the traditional context are also provided for transportation, special education, gifted and talented education, vocational education, and an English language proficiency function.

State funding for categorical program use may be expended for only those purposes. A transportation reimbursement is provided to each school based upon the regular route miles driven and the actual costs incurred. Special education funding will be discussed in a later section of this chapter. Funding support for talented and gifted education is calculated as a combination of a flat grant per district and a per pupil allocation. Vocational educational reimbursement is a distribution of a state fixed allocation based upon a district’s actual expenses. The amount will vary from year to year dependent upon the state fixed amount and the claims made by local districts. An English language proficiency act budget amount is determined by a per student calculation.

**Kansas**

Categorical programs in the Kansas formula include transportation funding, vocational education, at-risk program, staff development funding, parent education, bilingual education, and a food service federal matching option. The method of funding each of the categorical programs is processed in its unique fashion. The transportation funding includes a population cost density provision with the at-risk program utilizing a percent of population
factor based on the number of students eligible for free lunches, and special education (including the Talented and Gifted) program utilizing a per teacher funding mechanism. The funds are included in the basic funding formula with end of year auditing to assure the funds were expended for their intended purpose.

Kentucky

A number of categorical programs are included in the current Kentucky school funding legislation in addition to the typical talented and gifted and bilingual education programs. Among the more significant elements included are a staff professional development program that provides funding on the basis of $25 per student with at least 65% of the funds to be spent at the discretion of the local school attendance center. A preschool program for four-year-old youngsters from low socio-economic backgrounds as well as preschool for two and three year old students with identified special education needs are also categorical program expenditures.

An extended school services (ESS) plan was developed to allow schools to provide an extended school day or extended school year. The extended classroom time may not be used by high school students to earn additional credits for graduation, but rather is to provide additional learning or remedial activities in existing subject areas. One half the funding is based on a per pupil count and the remainder based on local demographic criteria (drop-out rates, test scores, attendance data, etc.).

A most popular categorical program is the Family Resource Service Center at elementary schools and Youth Service Center programs at the high school level. They do not provide direct services but coordinate the various social services and other local or state agencies to assist students and their families. Services include parenting skills classes, family training, employment skill training, etc. Funding is generated when a student population participation in the federal free lunch program exceeds 20%. At that point approximately $220 per student on free lunch is provided to fund the
staffing of the Service Centers. The range of funding is designated as a minimum of $15,000 per school with a maximum of $90,000 per school.

The state legislature in 1993 approved the annual expenditure of $20 million for distribution to districts for technology enhancements in the schools. The funds are provided on a dollar-for-dollar match basis to school districts electing to participate. All districts participate.

**Louisiana**

The pre-1992 funding formula had been in use since 1929 with few modifications. The basic structure was a formula based on teacher units with independent categorical sections for special purposes such as textbooks, transportation, in-service, etc. As categorical funds are project or purpose specific the funding was often found to be in conflict with the needs of a given school district. The need for more local flexibility was seen as a major failing of the 1929 formula. The formula revision of 1992 eliminated all categorical funding provided by the state that would be applicable to all schools.

**Early childhood programs**

For the purpose of this study early childhood programs were determined to be those provided youngsters by the public schools prior to the traditional entry into kindergarten. This could include instructional or day care services.

**Iowa**

Early childhood services required to be provided by the public schools are provided to special needs youngsters under five years of age (1997 Code of Iowa, Chapter 256B.2). Funding to provide services to this population are based on a weighted student determination and become a part of the special education budget and program. Additional pre kindergarten instructional or day care functions may be provided to other youngsters by the schools. Funding of these optional services and programs may either be borne by the school district or a fee for service may be established based on the expenses of the programs and
the family's ability to pay (1997 Code of Iowa, Chapter 279.49). The pre kindergarten enrollment as compared to the kindergarten enrollment in Iowa has shown an increase from approximately 2% in 1983-1984 to 17% in 1994-1995. While this indicates a substantial increase, the data were not disaggregated to differentiate between special education and non special education students (Iowa Department of Education, 1996c).

**Colorado**

A program for four-and five-year-old children is provided for those identified as lacking readiness skills, or are termed as neglected or dependent children by the Colorado Department of Human Services. Funding for this optional program is provided on a per pupil basis as those youngsters are included in the annual October 1 student count data. Special education preschool for three-and four-year old youngsters is also provided and funded through the October 1 student count mechanism.

**Kansas**

The pre kindergarten programs in Kansas are limited to special education services for three-and four-year-old children identified as requiring the special services. There are a number of at-risk programs for four-year-old youngsters in the state but they are operated by individual districts at their own expense. The state board of education recognizes the benefits of early childhood programs and has requested state support to fund such programs for several years. The funding has yet to receive the priority needed for legislative approval.

**Kentucky**

A preschool program for four-year-old youngsters from low socio-economic backgrounds as well as preschool for three-and four-year-old students with identified special education needs is provided. The funding is provided from state resources based upon a December 1 student count of
students in those programs qualifying as "at-risk" based on eligibility for free lunch service. Services are provided to other students on either a fee for service or gratis basis if space is available.

**Louisiana**

State funding is not provided for early childhood education, other than special education youngsters, as a function of the funding formula. Approximately 40% of the four-year-old population is served by a combination of programs provided by the Federal Head Start, State Department of Social Services, and local school districts. The funding is provided for local school district programs on a grant basis from a state trust fund. The trust is funded by the interest earned on a very large investment involving an oil company litigation settlement to the state. At the time of the settlement the legislature determined the proceeds would be used for the purposes of aiding the needy youth of the state via preschool program efforts.

**Fairness and adequacy of funding**

The reader is directed to a previous section of this chapter under the subheading "Basic issues of public school funding" earlier in this chapter for a brief description and discussion of these concepts.

**Iowa**

The current funding formula (Code of Iowa, Chapter 257) addresses the concepts of equity and adequacy in a number of ways. Horizontal equity is addressed by limiting districts across the state to a 5% variance in the regular program cost per student. Vertical equity is addressed in the method of generating additional funding for the instructional programs identified in the categorical funding section above. Adequacy is responded to via the instructional support levy where local school district patrons may authorize the levying of additional property tax and income surtax. These additional tax revenues are utilized to provide services that are desired by the local patrons.
but are beyond the limits of the required instructional programs and funding. In excess of 68% of the public schools in Iowa participate in the instructional support levy (I.S.E.A., 1997).

Colorado

The “total program” budget for Colorado is a student driven formula that multiplies an October 1 student count by a per pupil dollar amount that is unique to each district. Factors that adjust the per pupil dollar amount include community cost of living, personnel costs in the local school district, and the size of the school district student enrollment. To that figure an at-risk funding amount is added to arrive at the “total program” budget.

The cost of living factor is adjusted for each area of the state every two years and ranged from 1.004 to 1.63 for 1996-1997. This cost of living factor is applied to the portion of a school’s budget that is spent on salary and benefits. The normal range of expenditures attributable to personnel costs is from 80% to 90%. A diseconomy of scale that exists in operating either small or large school systems is recognized in the size factor of the budget calculation. A sliding scale provides an additional factor for districts with fewer than 5,814 students and those with more than 21,940 students. The size factors for 1996-1997 ranged from 1.000 to 2.4172. At-risk program funding is based on the federal free lunch participation rate for each district. A district receives substantial funding resources through this mechanism with the percentage increasing for a district as its percentage of at-risk pupils exceeds the state average. The combined effect of these factors resulted in the range of per pupil allocations for the 1996-1997 school year spanning from $4,305 to $10,339 per pupil.

A 1992 Taxpayer Bill of Rights (TABOR) was passed by the state’s voters that places limits on school revenues and expenditures. Revenues are limited by the student enrollment growth in a district and the rate of inflation. This may limit the amount of potential revenue as determined by the “total program” budget calculation above. A district must levy local property taxes
based on the lesser of; 1) the same tax levy of the prior year; 2) a levy to pay for the entirety of the program calculations; or 3) 40.25 mils.

Local voters have the authority to approve an “override” local property tax to spend more than the total program calculation provides. The maximum of this levy is the greater of $200,000 or 20% of the total program budget. Once approved by a simple majority of the voters the override budget is in effect for perpetuity, or until the law changes. In districts experiencing student enrollment growth it is possible to submit a proposal to the voters to claim the incremental increase that would result from the increase in enrollment.

**Kansas**

The current funding formula was put in place as of July 1, 1992, and replaced the prior law that had been in effect since 1973. The revised approach has provided improved taxpayer equity as there is a uniform state-wide property tax for school purposes. Each district then has the option of increasing the base amount by up to 25% which is power equalized with state funding. A most significant problem with the present formula as identified by Dennis is in regard to the base per pupil amount in the general fund portion of the formula as that figure has not increased at a rate equal to inflation. This translates to a reduced purchasing power of dollars to the school districts.

The amount of budget approved for each district is based on a weighted student count with adjustments being made for specific issues such as extremely low or high enrollment districts. Districts of extremely high or extremely low student enrollments have been statistically determined to possess special needs that require additional funding support whose needs are addressed with a compensating student weighting factor. An editorial opinion by Dennis was that the wealthy districts do not appreciate having limits set on the amounts they can spend on education, but it has served to equalize the educational programs and expenditures across the state.
Kentucky

The current funding scheme requires each district to levy a minimum of 30¢ per $100 property valuation with a second level providing for an additional local levy to be matched with state funds on a power equalizing basis. The current formula was designed to reduce the gap between high spending and low spending districts by providing greater funding increases for the lower spending districts. The result has been to reduce the per pupil expenditure gap between high and low spending districts from a $1,400 spread in 1989 to a $650 gap in recent years.

Louisiana

The current formula is driven by student enrollment as opposed to the previous law's teacher unit method. Implementation of the formula is incrementally addressed with the 1999-2000 school year targeted to have all districts at equivalent per pupil dollar levels. Hold harmless exceptions continue to be allowed for wealthy districts to not be penalized for exceptionally high local tax revenues. Funding for all local governmental services is provided through local property and local sales taxes. A statewide average would find approximately one third of the funding to be generated by property taxes and the remaining two thirds by local sales taxes. A rather complicated fiscal wealth capacity index is generated for each district to determine a comparatively reasonable amount of local sales and property taxes to expect from a district. The amount of state aid is then determined by a form of power equalizing to provide greater state subsidies to poorer districts. A major reason for the relatively low amount of funding raised through the property tax is due to an exemption on the first $75,000 assessed value on residential property and many state legislature authorized tax exemptions on industrial developments.
Infrastructure

Infrastructure in this context refers to the school buildings or facilities housing the instructional programs and the methods of raising funds for the construction and repair of school structures. It is becoming a significant issue for all states as the nation faces a significant multi-billion dollar expense to upgrade existing K-12 school buildings to acceptable standards (Moseley-Braun, 1997).

Iowa

The construction of school buildings in Iowa is dependent solely upon the local school district tax payer. The Code of Iowa, Chapters 296 and 75 provide the mechanism to authorize the issuance of bonds and indebtedness of the school corporation upon a 60% voter approval. The bonds and interest are paid with local property taxes. A Physical Plant and Equipment Levy (Code of Iowa, Chapter 298.2 and 298.3) provides up to $1.67 per $1,000 assessed property value for the repair and construction of school properties. Local school board approval is needed for 33% of the levy with a simple majority voter approval needed for the remainder of the levy.

James Rowings' study at Iowa State University in 1995 spoke to the issue of the physical condition of all public buildings in Iowa. At the time of his study the condition of the public school buildings in the state were found to have nearly one third of the buildings in violation of what were termed life/safety issues. It was also determined that if the state were to begin construction of replacement buildings for the aging structures in the state so that by 2005 the average age of the buildings were reduced to the average age in 1965, it would require $3.4 billion to remedy. This would be in addition to a continued expenditure of 2% of the remaining buildings' current value to keep them in decent repair. As education is a state rather than federal responsibility, it is reasonable that the state officials address their responsibility and the potential public safety risk to the young people of the state (Rowings, 1995).
Colorado

There are three primary methods to fund the building needs of the Colorado public schools. They are the capital reserve fund, bonded indebtedness, and a special building fund.

The capital reserve fund is derived from the $210 to $800 per pupil required budget allocation from the total program budget. These moneys may be used to purchase land, construct buildings and additions, building improvements, lease agreements, or for the purchase of buses or other large equipment items.

District voters may approve bonded indebtedness upon a 50% affirmative election. Local property taxes are increased to pay the bond and interest obligations. Limits of bonded indebtedness are not to exceed the greater of 20% of the district assessed valuation of all property or 6% of the actual value of all taxable property in the district.

The third option is the purchase of land or construction of facilities as may be approved by the voters to levy up to ten mills for three years or less. A voter approval of 50% is needed for this special levy.

Kansas

Construction of school facilities in Kansas is based upon simple majority approval of bond issues by local voters. State funds are available to districts via a form of power equalizing to assist in the repayment of bonds and interest on construction projects.

A 1992 provision authorizes local levy of up to 4 mils for up to 5 years may be approved by the local board of education for facility improvements, remodeling, etc. (comparable to the Iowa Physical Plant & Equipment Levy). A protest by 10% of the voters will force a public vote on the levy. Currently approximately two thirds of the districts in the state utilize this funding option.
Kentucky

Funding for facility projects is provided in the general fund with $100 per student designated for capital improvements. A second method involves a State Department of Education Commission that oversees the preparation of a 5-year facility plan for each district in the state. Each biennium the state legislature allocates a fixed sum of money to be distributed to districts involved in building projects. A district is eligible to receive the percent of legislature allocation that is equal to that district’s percentage of the total state unmet facility need as developed by the Department of Education. A district’s appropriation may be used over the following 20 years to apply to outstanding bond and interest obligations. All tax levies for facility purposes require a simple majority approval rate. A third method of funding school construction is through what is commonly referred to as the “nickel” program. In this program a district whose voters approve a levy of 5¢ per $100 assessed valuation for debt payment will have the local levy matched with state funds on a power equalizing basis. All above options may be utilized in any combination to respond to the facility needs of a school.

Louisiana

Funding to provide for the construction of school facilities is the sole responsibility of the local district taxpayers. Approval to sell bonds and levy the taxes to repay the principal and interest is provided by a simple majority of those voting in a school bond election.

Predictability of funding

The issue of funding predictability is of direct concern to school administrators and boards of education. A long view of a district’s revenue is critical in the planning and legal processes of a school district. Program startup, continuation, expansion, reduction, and staff recruitment, training, and termination are all elements of the school administration process that benefit from foreknowledge of available resources. Districts unable to depend
upon funding are subject to inadequate planning leading to ineffective programs, program interruptions or reductions at the instructional expense of participating students, and legal or negotiated contract difficulties related to legal timelines and notification dates.

**Iowa**

Current allowable growth percentages for school budgets are made in advance of the coming budget year (1997-98 and 1998-99 allowable growth rates were established in the 1996 legislative session). The percentage amount of allowable growth (funding increase) is a legislative response to the Governor’s recommendation. The regular program budget of public school districts is presently guaranteed to be at least as much as the prior year budget (1997 Code of Iowa, Chapter 257). In the event state aid is reduced after the budget has been established, the local districts have the option to levy additional local property taxes via a cash reserve levy to “replace” the reduced state funding.

**Colorado**

Colorado public school districts faced with declining enrollment receive support by adjusting the budget year student count. This is accomplished by averaging the current and prior year count to lessen the impact of declining enrollment in a pupil-driven formula.

An inflationary growth figure for the upcoming school fiscal year is authorized by the legislature each session. Prior legislature practice provided for multi-year projections of the anticipated growth. This was curtailed when a lower than predicted economic growth in the state resulted in a reduction of state aid payments to schools. The turmoil that was created was less than desirable and the decision was made to determine funding for inflationary increases for only one year at a time. Historically, funding for school enrollment growth has been provided. Thus, it generally is only the inflationary increase which is debated.
Kansas

The state legislature determines the amount of funding increase for the next school year. This normally occurs near the 1st of May for the school year to begin on the following July 1. In the event the state revenue collection does not meet expectations and funding is reduced from the state, the district payments are correspondingly reduced (full funding has been provided since the inception of the current formula). The choice available to districts is to either reduce expenditures in that fiscal year or spend available reserve funds to meet contractual obligations for the year. There is no option to replace reduced state funding.

Kentucky

The General Assembly approves a two-year budget plan for school funding. Although there are no provisions for predicting available funding for more than two years into the future the historical increase has fallen in the 3% to 5% range. Funding the local schools' general fund includes a uniform 30¢ per $100 assessed valuation levy as previously stated. The next tier of funding is, on average, a 12¢ to 14¢ local levy that is power equalized from the state. A third tier is a voter approved levy that is only local property taxes.

A system of sanctions and rewards is in place that provides additional funding to qualifying school buildings. Districts may receive reward funds if a sufficient number of schools/students in the district are achieving at the "desired" level. A relatively elaborate accountability index has been developed and monitored by the state department of education in assessing each building in the state. The criterion include performance based measures on curricular areas as demonstrated by writing assessments, portfolios, etc. Objective elements are included in the overall index such as attendance rates, drop-out rates, and transition to post high school living and work experiences.

The approximately 1225 school buildings are annually classed as either rewarded, successful, improving, declining, or in crisis. The certified staff in rewarded buildings (approximately 500 buildings per year) may receive from
$1,100 to $2,200 per staff member to distribute as they determine. The amount is determined by the number of qualifying buildings and staff to share in a fixed allocation amount as determined by the state board of education. Successful buildings receive a two year extension from assessment. Improving schools are required to prepare and submit a plan designed to elevate them to the successful level. Schools in decline are assigned a distinguished educator to assist the building in developing measures to begin improving the accountability index for that building. The schools in crisis (nine buildings in 1997) are assigned a full-time educational consultant with broad authority to take steps to correct the situation. Although this feature is not a “formula” to predict future funding, the qualifying criteria are well-established and provide an opportunity for the staff in each school building to pursue that funding.

**Louisiana**

The state board of education annually submits a 5 year projection of the anticipated public school enrollments and the funding proposal needed to reach the intended financial goal. The state legislature then determines the actual amount of allocation based on the board of education projection in conjunction with other statewide economic predictors. The total amount of funding made available to an individual school district is the amount approved by the state legislature plus the actual amounts of property and sales taxes raised during the year. In times of economic prosperity schools realize a windfall in additional unexpected sales taxes. In times of economic recession districts may be forced to terminate programs and staff in mid-year if reserve funds are not available.

**Special education**

The 1975 passage of Public Law 94-142 expanded the federal commitment to assisting states and local districts in providing appropriate educational services to children with disabilities. The original intention at the federal level
was to provide states with up to 40% of the national average per pupil expenditures for each child with a disability, but in fact only about seven to eight percent of special education funding comes from federal sources (Parrish, 1996). The number of identified special education students has consistently grown at a higher rate than the numbers of students not requiring special education services. Special education has come to be viewed as an entitlement with little grounds to have costs entered into the decision process (Barnett, 1994).

Four basic funding approaches are used in most states including flat grants, pupil weights, percentage reimbursement and resource based allocations. An important item to consider is that only about half the states require the funds actually be spent on special education programming, while the others provide the funds but have no set spending requirements. Growth is expected to continue with the demand for services likely to exceed the ability to fund it in some states. These trends suggest a crossroads in special education policies may be upon us. A challenge for all states is going to be to balance the needs and rights of all children with the limits of available financial resources (Parrish, 1996).

Iowa

Funding to provide the special educational services for identified students is generated through the system of additional student weightings. Students with severe disabilities generate more money to pay for their additional programming costs than those students with less disabling conditions. Even with additional funding the costs of providing special education services have exceeded revenues by at least 10 million dollars per year for the school fiscal years from 1988-1989 through 1995-1996 (Bureau of Special Education, 1997). Spending on special education programs that exceeds the amount of revenues for special education students may be collected upon approval of the School Budget Review Committee (the SBRC is a review panel appointed by the Governor). The replacement funds come primarily from additional local
district property taxes and a small amount of state aid (Code of Iowa, Chapter 257.31.14).

**Colorado**

Funding for special education services for three and four year olds is based on a per pupil weighted count as of October 1 of each year. Funding for school-age special education student services is based on a combination of allocations based on historical district funding and a December student count (Colorado Department of Education, 1997a). The special service needs consistently exceed the funding generated for these programs with over-expenditures paid from the regular education portion of the total program budget. This has created controversy and conflict in instances where general education services or programs are reduced in order to fund special education needs.

**Kansas**

Funding for special education services is based upon a per teacher and teacher aide full time equivalency (FTE) basis. An amount equal to 80% of special education transportation expenses and state funding for catastrophic situations (individual student program cost in excess of $25,000) are also included in specific support for this area. In the event special education expenses exceed the generated funding the difference is paid from the operating fund. This has created some dissension between special education and "regular" education interests. School districts consistently spend more funds for special education than are generated through the formula.

**Kentucky**

Special education services in Kentucky are funded on the basis of the December 1 student count with three levels of additional weighting. Although the moneys are raised on the basis of the special education enrollment count, the funds become a part of the general fund and need not be spent for special
education services. There is no provision for recouping special education expenditures that exceed generated revenues. There have been no known major conflicts between regular education and special education teachers or parents over the issue of an imbalance in expenditures between the two programs.

**Louisiana**

The definition of “special education” in Louisiana includes assisting those students eligible for services to the talented and gifted as well as those requiring services for learning, emotional, or physical assistance which are often referred to as “special needs” students. Additional student weightings are used to generate the funding to provide the services. Talented and gifted students are weighted at .6 in addition to the regular 1.0 weighting. Identified special needs youngsters generate an additional 1.5 student weight beyond the regular education 1.0 figure. There is only one level of special education weighting as it was thought more weighting categories merely generate more confusion into an already complicated process.

Districts receive the additional funding generated by the student weightings as a part of the funding package and are expected to meet state and federal requirements in providing the appropriate services. The state is currently averaging in excess of 11% of the student population identified as needing special education with some districts approaching a level of 22% of their student population. Studies are anticipated in the near future to review the consistency and accuracy of student assessment and identification practices in districts with exceptionally high percentages.

**Unforeseen or emergency needs**

There are unforeseen circumstances that require substantial cash outlays to resolve (sudden enrollment growth, natural disasters, etc.).
Iowa

The current option available for Iowa public schools is to apply to the School Budget Review Committee for a temporary increase in the district's allowable growth (Code of Iowa, Chapter 257.257.31.5). All such funding is derived from additional local property taxes. A review of the past minutes of the School Budget Review Committee, as available from the Department of Education, will identify common pleas for such additional funding to be related to exceptional student enrollment increases, special education budget deficits, and unusual facility needs (roof replacements) resulting from acts of God.

Colorado

A state contingency fund resides under the control of the Colorado State Board of Education to respond to local school district funding emergencies. The use of these funds is to respond to unusual circumstances arising from acts of God, property tax collection deficiencies, the exceptional financial obligations associated with court ordered placement of non-resident youngsters, or other extreme emergency situations. A common utilization of these funds is when a large taxpaying industry experiences a bankruptcy and a major portion of a district's property taxes are uncollectable.

Kansas

A provision exists in the Kansas system to appeal to the state legislature for supplemental appropriations to fund schools that experience a sudden and substantial increase in student enrollment.

Kentucky

The concept of a funding resource for unpredictable needs is limited to an enrollment scenario. In the event a district has a substantially higher enrollment the second month of school over the previous year an appeal can be made for assistance from the state department of education. This is not perceived as an "emergency" fund. Projected growth is included as part of the
biennial budget request and the appropriation is part of the basic school funding. It is not distinguishable once appropriated.

**Louisiana**

Discussion of the concept of a state source responding to a district’s unplanned need yielded little of substance. The general concept is for governmental entities such as public schools to maintain a reserve fund to withstand unforeseen situations such as reduced revenues from local taxes or unplanned expenditures.

**State Comparison Summary**

The summary section includes the strengths, deficiencies, or unique features of each of the five state’s responses to the FAPA areas. Selection of particular areas was based upon the contributing state’s representative providing the information and observations by the researcher.

**Iowa**

The feature of the Iowa public school funding system of significance is in regard to special education. Iowa is the only state in this limited study that manages special education in a categorical manner with the option of replacing a balance deficit when expenditures exceed generated revenues. This may be perceived as a strength of the current funding provisions as it allows the local school district to serve identified students in an appropriate setting without concerns about the negative funding impact on non-special education programs.

It serves to avoid the special education versus “regular” education conflicts that have arisen in states where services to regular education students are reduced as a result of funds being expended for special education student programming. The negative side of the issue is the undocumented perception that some special education proponents tend to view special
education services as an entitlement to optimum (more costly) programming rather than appropriate programming.

The growth of special education student enrollment has outpaced the regular education enrollment growth in recent years. Moreover, the statewide special education deficits have increased each of the past several years (Iowa Department of Education, 1997a). Both factors may underscore the need for future investigation.

An element of the Iowa law that provides for additional local control is the instructional support funding option. This mechanism provides funding that may be utilized for the most appropriate purpose as determined by the local board of education. It also includes the feature of collecting taxes via an income surtax as well as the traditional property tax to support the public school programs.

**Colorado**

The current funding formula is seen as being responsible for a general increase in the amount of total moneys being directed to the public schools. It has also provided a justifiable basis for providing the vertical equity between districts. Difficulties with the current Colorado formula include assurances from school districts that the present level of at-risk funding support is grossly inadequate to meet the current needs of society and should be increased in most districts. Another point of contention with the current formula is in regard to the size factor. It was determined through a statistical analysis of district historical spending data a number of years ago with the original calculation continuing in use for each district. The argument is made that poor districts were unable to spend as much in those prior years and therefore are continuing to be punished under the current formula.

**Kansas**

The “secret” to a productive and successful legislative revision experience was tied directly to the legislative leadership provided during the process.
Supporters of public education found it most encouraging when the political leadership maintained a focus on striving for equity and providing that which was in the best interests of all students. This motivation does not always run congruent to the wishes of the wealthy districts and other special interest groups.

A feature unique to the Kansas school structure is the taxpayer equity established with a statewide property tax rate for support of public schools in the state.

**Kentucky**

Features of the Kentucky law not found in the other states include the extended school service provision for additional instructional time and the service center concept located in the elementary and secondary schools to coordinate the various social and family service agencies to assist students and their families.

Another feature of the Kentucky system worthy of note is the School Facilities Construction Commission development of a 5-year facility plan for all the school districts in the state. The Commission then has the authority to allocate moneys to school districts to assist in the payment of long term debt for construction projects.

**Louisiana**

The state of Louisiana is alone in providing a funding mechanism that allows the most flexibility and local control of the states reviewed. This is accomplished with the elimination of categorical programs and the directive to school districts to meet state and federal mandates as they determine at the local level. This is in stark contrast to a prior funding law that was perceived as containing too many categorical restrictions.

The concept of applying a single weighting factor to all identified special needs students regardless of degree of disability separates Louisiana from the other states surveyed. The remaining states in this study used a multiple level
of student weighting dependent upon the student's disabling condition. The Louisiana intention is to provide a source of funding to furnish the services needed by students and avoid the conflict, controversy, and emotional stigmas associated with the multi-level weighting approach.

The calculation of a fiscal capacity factor for each district makes a strong statement to the concept of vertical equity as it applies to the power equalizing determination of state funding support for the local school districts. A negative feature of the current law is the heavy reliance placed on local sales taxes as the source of the local portion of tax revenue. This approach allows school districts to enjoy the benefits of a stronger than anticipated local economy but also penalizes them in periods of lower than projected retail sales.

Table 1 summarizes the primary features of the FAPA categories for each of the five states in the sample as discussed in the previous sections. An "x" under a state name indicates the feature in the left column applies to that state's circumstance. Readers should refer to specific state legislation and regulations for a complete and thorough discussion and explanation of any particular feature on Table 1.

Chapter Summary and Conclusion

This chapter developed a historical perspective of how the public schools in the United States have received funding since the early days of the republic. A discussion was also provided to assist in understanding why public education was excluded from specific mention in the Constitution of the United States and became a responsibility of the individual states'. A historical perspective helps to understand early funding decisions have had an impact on how each of the 50 states has chosen to continue providing for the education of their citizens.

The final sections of the chapter highlighted how Iowa, Colorado, Kansas, Kentucky, and Louisiana respond to each of the Financial Allocation Policy Areas. The similarities and differences are discussed as these states have arrived at the current status by different means. Iowa has a formula that has
Table 1. Comparison of five states on funding issues

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<td>Parent Education</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early childhood programs (excluding special education)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Four year old at-risk</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Fairness and adequacy of funding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Horizontal Equity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State control of per pupil costs</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Statewide property tax for K-12</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vertical Equity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local option to increase funding</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Per pupil costs adjusted for local conditions</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local sales tax for schools</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>
Table 1. (continued)

<table>
<thead>
<tr>
<th>Infrastructure</th>
<th>Iowa</th>
<th>Colorado</th>
<th>Kansas</th>
<th>Kentucky</th>
<th>Louisiana</th>
</tr>
</thead>
<tbody>
<tr>
<td>60% Bond issue passage</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50% Bond issue passage</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>State contribution toward facility replacement</td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Predictability of funding</th>
<th>Iowa</th>
<th>Colorado</th>
<th>Kansas</th>
<th>Kentucky</th>
<th>Louisiana</th>
</tr>
</thead>
<tbody>
<tr>
<td>One year allowable growth</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Multi year allowable growth</td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Special education</th>
<th>Iowa</th>
<th>Colorado</th>
<th>Kansas</th>
<th>Kentucky</th>
<th>Louisiana</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funds generated via pupil weightings</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Funds generated on teacher/aid FTE</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spending in excess of revenues replaced in succeeding years</td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unforeseen or emergency needs</th>
<th>Iowa</th>
<th>Colorado</th>
<th>Kansas</th>
<th>Kentucky</th>
<th>Louisiana</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appeal to state authority to levy additional local property taxes</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appeal to state authority for state grant</td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Reliance on local reserve funds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>

evolved and changed in small increments over the past quarter century while others (Kentucky) were required to institute massive changes in response to court rulings.

This brief review of how five states respond to seven specific facets (FAPA) regarding the funding of public schools tends to support the premise that there is yet to be identified a single “best” funding system as states have been facing similar challenges since the early days of our country (Augenblick, 1991; Hackney, 1993). There is a long history of state control over the function and funding of public education. As a result change is a difficult and politically
charged proposition. The amount of change or modification in a funding formula may be related to many factors including the collective public conscience, the wealth of the state, and the impetus for revision of a state's funding formula (sunset versus court ruling of unconstitutionality of the existing formula).
CHAPTER 3. METHODOLOGY

Introduction

This study was designed to identify the extent and nature of support for change in the status or provisions of the 1997 Iowa public school funding legislation. Four primary subgroups were involved in the study, including public school superintendents, board of education members, school business managers, and teachers. The analysis was designed to compare differences in responses among the four primary subgroups toward the identified Financial Allocation Policy Areas (FAPA). To determine the levels of support for change to the school funding formula (Hypotheses 1, 2, and 3), analytical comparisons were conducted. One comparison focused on priority ranking of the survey items between subgroups (Hypothesis 4). The impact of school size, respondent's experience in current school assignment, and geographic location were analyzed in terms of relationship to perceptions of board members and superintendents only (Hypotheses 5 and 6).

Procedures of the Study

The following procedures were used in conducting the study:

1. The problem of the study was developed following a review of relevant literature.

2. The purpose of the study was determined following a conference on current public school funding issues with the Director, Assistant Director, and Chief Financial Analyst of the Iowa Department of Education.

3. Study participants were identified as members of the boards of education, business managers or financial secretaries (hereafter referred to as business managers), superintendents, and teachers from each of the 76 selected Iowa public schools.

4. Seven FAPA categories were identified by a panel of experts experienced in Iowa public school finance (Appendix C).
5. A survey instrument was developed based upon the deliberations and advice of the expert panel. Respondents were to indicate their support for maintaining the status quo or support for change in regard to the funding policies relating to the FAPA categories. A five-point Likert scale was used for responses to each FAPA, ranging from strongly agree to strongly disagree with the items supporting change or maintaining the status quo (Appendix A).

6. The Human Subjects Committee at Iowa State University approved the instrument for implementation (Appendix G).

7. The survey instrument, an introductory letter (Appendix D), and a token incentive were mailed to the business manager in the selected schools. This individual was requested to disseminate and collect the completed surveys from the other respondents for return to the study.

8. Selection of participating school districts was determined by a random sampling, with replacement, of districts based upon size and geographic location (Appendix B).

9. A reminder card was mailed to each school one week prior to the originally requested response date (Appendix E).

10. The data were coded and entered into software, “Statistical Package for the Social Sciences” (SPSS), using a data base on a Macintosh computer.

11. Findings and conclusions were drawn from the data for reporting to the program of study committee for final approval and to the Iowa Department of Education for use in legislative deliberations.

Instrument Development

Due to the specific nature of the study, with regard to a particular state’s public school funding legislation, an established survey instrument was not readily available. The approach selected was to convene a meeting of a knowledgeable panel of experts in Iowa school finance to identify significant issues in the current funding formula. This review panel consisted of the chief financial specialist from the Iowa Department of Education, professors of
school finance representing Iowa State University and the University of Iowa, a school finance expert from the Iowa State Education Association, an experienced Iowa public school superintendent, and the recent past president of the Iowa Association of School Business Officials (Appendix C).

The panel of experts identified the following seven categories to be of highest current significance relative to the funding of Iowa's public schools:

- categorical funding
- early childhood programming
- fairness/equity and adequacy of funding
- infrastructure needs
- predictability of funding
- special education
- unforeseen or emergency needs.

Discussion that occurred during the deliberations was audio tape recorded with explanatory comments and thoughts recorded on charts for later use by the researcher and program advisor in developing the specific survey items.

Approval was granted by the Iowa State University Human Subjects in Research Committee to administer the survey instrument (Appendix G).

Instrument Validation and Reliability

A group of 33 school business officials pilot tested the instrument as well as revisions being suggested by the Iowa Association of School Board public relations specialist. The survey instrument items were then edited and validated by the expert panel members (Appendix H).

Reliability of the survey instrument was estimated with the use and application of Cronbach's coefficient alpha. The purpose of this measure is to determine the consistency with which test takers respond to similar items in a similar manner (Gall, Borg, & Gall, 1996).
Population and Sample Determination

The potential population would include the representative members of the 379 public school districts in the state of Iowa at the time of the study. Telephone communication from the Iowa Association of School Boards indicated there are approximately 2,000 board of education members serving Iowa's public schools (from five to seven members for each district). There were 357 individuals in superintendent positions (including six vacancies at the time of publication), plus 20 serving two districts, and 1 serving three districts (Iowa Department of Education, 1996a), 340 business managers were identified by the Iowa Association of School Business Officials, and approximately 31,051 public school teachers in Iowa (internet website of the Iowa Department of Education at http://www.state.ia.us/educate/depteduc/fis/edi/iaprof.html.).

A general rule in quantitative research is to use the largest sample size possible, as a larger sample size measures power and increases the probability of rejecting a false hypothesis. The realities of time, resources, and funding limited the number of subjects that could be reasonably sampled. A representative from each of the four responsibility groups from a minimum of 50 public school districts was desired to provide a sample size of at least 200. According to standard criteria this sample would adequately represent the responses for this study (Gall, Borg, & Gall, 1996; Bradburn & Sudman, 1988). Utilizing table C.12 from Hinkle, Wiersma, & Jurs (632) with a level of significance of .05, a power of .80, two-tailed directionality, and a standardized effect size of 1.0 results in a suggested sample size of 20 per treatment level when three treatment levels were to be compared. This would suggest the statistical analysis for hypotheses five and six would benefit from a total sample size sufficient to include 20 cases in each treatment grouping for a total sample of 60 superintendents and 60 board members.

The method of selecting the respondent districts was based on the demographic characteristics of geographic location and K-12 certified enrollment to the extent possible. Public school district data provided on
computer disk by the Department of Education found the public school districts serving a total of approximately 505,000 students. As can be seen in Table 2, schools were categorized into three size groups. Groupings were based on certified enrollments of 750 students or less for small school districts, between 750 and 2,000 students for medium size districts, and 2,000 students or greater for large schools providing a compromise between the three groups with regard to percent of students and percent of districts represented in the survey. Small schools by this definition comprise 53% of the school districts yet educate only 19% of the public school student population. Medium size districts are the most consistent with 35% of the districts and 31% of the certified student enrollment. Large schools comprise only 12% of the districts but serve 50% of the public school students.

Table 2. 1996-97 Iowa public school enrollment by district size group

<table>
<thead>
<tr>
<th>1996-97 Certified Enrollment</th>
<th># of districts</th>
<th>% of districts</th>
<th># of students</th>
<th>% of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 750</td>
<td>203</td>
<td>53%</td>
<td>95,450</td>
<td>19%</td>
</tr>
<tr>
<td>750 - 2,000</td>
<td>132</td>
<td>35%</td>
<td>156,001</td>
<td>31%</td>
</tr>
<tr>
<td>&gt; 2,000</td>
<td>44</td>
<td>12%</td>
<td>254,071</td>
<td>50%</td>
</tr>
<tr>
<td>Total</td>
<td>379</td>
<td>100%</td>
<td>505,522</td>
<td>100%</td>
</tr>
</tbody>
</table>

Data Source: Iowa Department of Education (1996a)

A long-standing, though undocumented, topic of comment by state residents is that the decisions and thoughts of citizens vary from the northern to the southern borders of the state. Regional differences are thought to exist. To verify the accuracy of the above statement and to assist in geographically distributing the respondent schools an additional demographic delimitation was included in the selection process. Three areas were formed by grouping those districts lying north of highway 20, south of interstate highway 80, and those districts between the two highways.
The selection process involved dividing the list of public school districts into three groups based upon the previously stated enrollment/size criteria. A disinterested third party randomly drew (with replacement) district names from each pool and listed selected districts in the appropriate geographic pool (north of highway 20, between highways 20 and 80, south of highway 80). Drawing continued until there were at least ten districts in each size category for each of the three geographic regions, for a total of 90 districts.

Fourteen of the originally selected districts subsequently were removed from the sample based upon concerns to avoid appearance of conflict of interest or potential bias due to involvement with preparation of the survey instrument or the absence of a business manager identified by the Iowa Association of School Business Officials. None of the remaining districts were involved in a superintendent-sharing arrangement for which the same individual would have responded to more than one survey. Survey materials were sent to the remaining (N = 76) districts.

Administration of the Survey Instrument

Respondents were clustered by job responsibility within each of the randomly selected districts. Four surveys were mailed to the business manager of the 76 identified school districts. An introductory letter explaining the study requested this individual to complete one survey and distribute the remaining three surveys and introductory letters to the superintendent, a financially knowledgeable member of the board of education, and a teacher with a known interest in school funding (Appendix D). The board of education member was selected by the superintendent, with the respondent teacher selected by the local teacher association leadership. The business manager was directed to distribute and collect the survey instruments due to the likelihood of the researcher's name being recognized by members of their professional organization (the researcher was a recent president of the Iowa Association of School Business Officials) and an anticipated professional courtesy in assisting with the process. A token incentive of two 2-dollar bills
was included in the business manager packet and a single one-dollar bill was included with the remaining three packets sent to each district. The larger incentive was provided to the business manager to acknowledge the additional imposition placed on that person to distribute and collect the surveys.

The completed surveys were to be submitted in a sealed envelope to the business manager for collection and return to the study. A coding system was developed to monitor the survey returns to enable follow-up communications to encourage response completion. Approximately two weeks following the posting of the materials to the business manager a personalized reminder card (Appendix E) was mailed to each business manager reminding them of the requested return date and encouraging completion and return of the surveys.

Responses were received from all 76 districts with two districts returning the materials but declining to participate in the study. A total of 74 district responses were received for inclusion in the study (Appendix B). Business managers were contacted by telephone in those districts that omitted a response from a board of education member or teacher and another survey form provided to those districts. The final sample included 289 respondents with 6 board member surveys and one teacher survey being omitted from the study, providing a 97.6% return rate for participating districts. The responses in one district gave the appearance of being collaboratively developed but were included in the study as the instructions did not specifically address that consideration. At the conclusion of the collection period the coding system was destroyed.

**Statistical Procedures**

Data were analyzed using both descriptive and inferential statistics. Descriptive statistics were used to identify the demographic characteristics of the respondent groups, as defined in Table 3, using frequencies and percentages. Hypotheses are stated in null form.
Table 3. Demographic descriptors of survey respondents

<table>
<thead>
<tr>
<th>Item</th>
<th>Descriptors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - Gender</td>
<td>Male</td>
</tr>
<tr>
<td></td>
<td>Female</td>
</tr>
<tr>
<td>2 - Age</td>
<td>35 or under</td>
</tr>
<tr>
<td></td>
<td>36 to 55</td>
</tr>
<tr>
<td></td>
<td>56 or older</td>
</tr>
<tr>
<td>3 - District k-12 Enrollment</td>
<td>under 750</td>
</tr>
<tr>
<td></td>
<td>750 to 2,000</td>
</tr>
<tr>
<td></td>
<td>over 2,000</td>
</tr>
<tr>
<td>4 - Responsibility</td>
<td>Board of Education</td>
</tr>
<tr>
<td></td>
<td>Business Manager.</td>
</tr>
<tr>
<td></td>
<td>Superintendent.</td>
</tr>
<tr>
<td></td>
<td>Teacher</td>
</tr>
<tr>
<td>5 - Experience</td>
<td>Under 3 years.</td>
</tr>
<tr>
<td></td>
<td>Between 3 and 10 years</td>
</tr>
<tr>
<td></td>
<td>Over 10 years</td>
</tr>
<tr>
<td>6 - District Location</td>
<td>North of highway 20</td>
</tr>
<tr>
<td></td>
<td>Between highway 20 &amp; interstate highway 80</td>
</tr>
<tr>
<td></td>
<td>South of Interstate highway 80</td>
</tr>
</tbody>
</table>

Correlations were used to analyze Hypothesis 4 "There is no positive correlation in priority rankings of the FAPA." The appropriate statistical analysis is the Spearman rho correlation of ranked scores. Six bivariate correlations were processed to compare the following job responsibility grouping pairs:

- Board of Education and Superintendent
- Board of Education and Business Manager
- Board of Education and Teacher
- Superintendent and Business Manager
- Superintendent and Teacher
- Business Manager and Teacher

Mean raw scores were sorted from high-low on each of the individual FAPA items for each of the four responsibility groups prior to correlation. The formula utilized was as identified in Hinkle, Wiersma, & Jurs (122):
\[ p = 1 - \left(6 \sum d^2 / n\right) \]

where:
- \( p \) = Spearman rho correlation coefficient
- \( n \) = number of paired ranks
- \( d \) = difference between paired ranks.

The correlation coefficient computed value can range from -1.0 to +1.0, with the sign of the correlation indicating a positive or negative relationship and the absolute value of the coefficient indicating the magnitude of the relationship (Hinkle, Wiersma, & Jurs, 1994).

The hypothesis can be rejected, or fail to be rejected, based on comparison of the calculated correlation coefficient against the applicable critical value as provided in table C.7 of Hinkle, Wiersma, & Jurs (625).

Inferential statistics were applied to the remainder of the hypotheses as a means to make generalizations about the population of the four responsibility groups in the public schools of Iowa. A probability of alpha < .05 was used throughout the testing based on the convention of social sciences research.

An analysis of variance (ANOVA) is a method to analyze an independent variable with two or more levels. "The null hypothesis tested in ANOVA is that the population means from which the \( K \) samples are selected are equal, Symbolically,

\[ H_0: \mu_1 = \mu_2 = \ldots = \mu_K \]

where \( K \) is the number of levels of the independent variable. ….. the null hypothesis is that the population means for levels are equal. The alternative hypothesis (\( H_a \)) is that at least one population mean differs from the other population means" (Hinkle, Wiersma, & Jurs, 1994, p. 320).

\[ H_a: \mu_1 \neq \mu_2 \neq \ldots \neq \mu_K \]

* at least two \( \mu \) not equal
The parts of the ANOVA procedure include the variation of the scores within the groups and the variation between the group means and the mean of the total group (grand mean) (Hinkle, Wiersma, & Jurs, 1994).

A finding of significance, or rejection of the null hypothesis, via ANOVA tells if there is a difference between the means of at least two of the levels of the independent variable, but it does not indicate between which levels of the independent variable that difference exists. A detailed discussion and formula verification can be found in Hinkle, Wiersma, & Jurs (316 - 348).

A post hoc test must be used to identify which levels of the independent variable are statistically different. The post hoc test used in this study was the Scheffé method, as it is a versatile and yet conservative procedure as described in Hinkle, Wiersma, & Jurs (366). The test statistic for the Scheffé method is:

\[ F = \frac{\left( \sum C_k \bar{X}_{k} \right)^2}{\left( MS_w \right) \left( \sum \left( C_k^2 / n_k \right) \right)} \]

where:
- \( C_k \) = coefficient of the kth contrast/level
- \( \bar{X}_{k} \) = mean of the kth contrast/level
- \( MS_w \) = Mean Squares within from the ANOVA
- \( n_k \) = the number of members in the kth contrast/level

The F value above was compared against the critical F value used in the ANOVA multiplied by a factor of \( (k-1) \), where \( k \) is the number of groups.

This ANOVA analysis was applied in Hypothesis 1, which states: "There is no difference in the support of each FAPA criteria within each of the responsibility groups." An ANOVA was generated for each of the 30 survey items using 'support for change' scores. With each analysis subject to an alpha risk of < .05 it is conceivable that if all 30 tests resulted in rejected null hypotheses one (30 x .05) of said results could be falsely rejected.

The Hypothesis 2 statement was: "There is no difference in the mean 'support for change' scores between the seven FAPA categories." It was
necessary to prepare a mean score for the totality of those survey items within each of the seven FAPA categories. The analysis of this hypothesis included an ANOVA to compare the support for change between the mean scores of the seven FAPA categories.

"There is no difference among the three efficacy levels of satisfaction" was the premise of Hypothesis 3. The 30 individual survey items were categorized into three efficacy levels, with 13 items supporting the status quo, 9 items supporting moderate change, and 8 items supporting significant change (Appendix F). The ANOVA was applied to determine whether there is a difference in the means of the raw scores of the three groupings.

The ANOVA analysis as described above was used in Hypothesis 5, which consisted of three parts. The general format of the three parts was: "There is no difference in the support for change among the board of education group when considering the respondent's

a - size of resident district."

b - geographic location of resident district."

c - total years of experience in the current responsibility group."

The statistical analysis consisted of 3 one-way ANOVAs. Converted 'support for change' scores were used in this test, as defined in the following section.

The three parts of Hypothesis 6 were similar to Hypothesis 5, with the "board of education" in hypothesis 5 replaced with "superintendents" in hypothesis 6. The statistical analysis consisted of 3 one-way ANOVAs. Converted 'support for change' scores were used in this test.

Change Efficacy Quotient, or Support for Change Score Conversion

A primary function of the research was to determine the desire of the responsibility groups for changing the current funding formula in particular areas or maintaining the status quo. The survey instrument was designed intentionally to include items within each FAPA category that presented a balanced perspective. This was accomplished by including thirteen items supporting the status quo with regard to continuing the current formula and
seventeen items that promoted funding formula change to a moderate or significant degree. In order to manipulate the data more meaningfully, a conversion design was utilized such that a low score on a status quo item would yield a converted score indicating a high desire for change. The conversion can be seen in Table 4. Conversely, a high score on a status quo item would yield a low converted ‘support for change’ score. Those items identified as supporting moderate or significant change required no conversion, as their “raw data” status indicated the degree of support for change.

Table 4. Support for change score conversion

<table>
<thead>
<tr>
<th>Raw score:</th>
<th>strongly disagree</th>
<th>disagree</th>
<th>no opinion</th>
<th>agree</th>
<th>strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

13 status quo efficacy level criteria
Raw score | 1 | 2 | 3 | 4 | 5
Converted support for change score | 5 | 4 | 3 | 2 | 1

9 significant change and 8 moderate change efficacy level criteria
Raw score | 1 | 2 | 3 | 4 | 5
Converted support for change score | 1 | 2 | 3 | 4 | 5

A listing of the items identified as exhibiting support for status quo, moderate change, or significant change was developed to facilitate the conversion process (Appendix F).

Chapter Summary

This chapter reviewed the methods and procedures applied in this quantitative study. Due to the nature of the research topic it was necessary to develop an instrument to gather the data. An expert panel was called to identify and validate the Financial Allocation Policy Area (FAPA) topics and the individual survey items. The instrument was constructed using a five
point Likert scale (1 = strongly disagree, 2 = disagree, 3 = no opinion, 4 = agree, 5 = strongly agree) to respond to statements that would support change and statements that supported preserving the status quo. As a result a method was developed to convert the ratings from the “status quo” oriented survey items into a “support for change” score for data analysis.

Stratified random sampling was used to select the survey respondents school districts. The specifics of administering the instrument were also presented in detail.

The statistical procedures implemented in the data analysis included one-way analysis of variance (ANOVA) and Spearman rho (rank ordered) correlation methods.
CHAPTER 4. RESEARCH FINDINGS

Introduction

The findings of the study are presented in this chapter and are organized into the following sections: (a) general characteristics of the sample, (b) reliability analysis of the instrument, (c) statistical analysis and findings to hypotheses, and (d) summary.

General Characteristics of the Sample

The primary purpose of this section is to describe and analyze results from the Iowa public school respondents to the study with respect to the following demographic and background variables: (a) job responsibility, (b) gender, (c) age category, (d) district size category, (e) years of experience in the current job responsibility, and (f) geographic location of the district within the state of Iowa. The respondent data is shown in Table 5, in disaggregated form.

Job responsibility

The job responsibility response distribution is the first row of Table 5. The sample consisted of 289 respondents, of which 68 were board of education members (23.5%), 74 were business managers (25.6%), 74 were superintendents (25.6%), and 73 were teachers (25.3%). Job responsibility was a primary variable of interest in hypotheses one, four, five, and six. Further analysis was conducted by generating cross-tabulations with the job responsibility categories and the remaining variables. Those areas that deviated from the expected distribution or were deemed worthy of note are reported in the following sections.

Gender

Within the total number of respondents there were approximately twice as many male respondents (189) as female respondents (98). A similar
Table 5. Demographic and background information of respondents

<table>
<thead>
<tr>
<th>Category</th>
<th>Board Member</th>
<th>Business Manager</th>
<th>Superintendent</th>
<th>Teacher</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Responsibility</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Responsibility</td>
<td>68</td>
<td>23.5</td>
<td>74</td>
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distribution was not observed across the individual job responsibility groupings. The board of education member respondents included a majority of males (69.1%) as did the teacher respondents (60.3%). The majority of business manager respondents was female at 62.2%.

Superintendent responses were received from 70 males (94.6%) as compared to 4 females (5.4%). These distributions approximate the distributions in these populations with the exception of the teacher group that has 31.8% of males in the Iowa public school teaching ranks. (Iowa Department of Education web page http://www.state.ia.us/educate/depteduc/fis/edi/iaprof.html) (1997).

**Age**

The age of the respondents was divided into three categories: 35 years and under, 36 to 55 years, and 56 years and older. When considering the total respondents, the 36 to 55 years category included 75.1% (217) of the sample with 16.6% in the 56 and older category (48) and only 6.9% in the 35 and under range (20). The only job responsibility group deviating substantially from the above pattern was the superintendent category that was distributed with 6.8% in the 56 and over range, 75.7% in the 36 to 55 year range and a void in the 35 years and under range. There were a total of four respondents that did not provide this information.

**District size**

The size category was divided into three classifications: K-12 school districts with certified enrollments less than 750 students, those districts with enrollments between 750 and 2,000 students, and those whose enrollments exceeded 2,000 students. The largest percentage of responses (36.7%) came from districts with enrollments in the 750 to 2,000 student range. Responses from the under 750 student enrollment category comprised 30.8% and those from the over 2,000 student category provided the remaining 32.5% of the responses.
Experience in job responsibility

Total years of experience for respondents in their current job responsibility at any public school in Iowa was sorted into three classifications including less than 3 years, 3 to 10 years, and over 10 years. In excess of half of all respondents (54.0%) represented the over 10 years experience category with relatively few (10.7%) from the under 3 years experience group. In reporting the individual job responsibility data, it is noteworthy that the teacher group reported only one individual in the under 3 years experience range, 10 in the 3 to 10 years group, and 62 in the over 10 years experience group (84.9%).

The business manager group also showed a heavy weighting in the over 10 years experience range with 46 respondents for 62.2% of that group and only 7 in the under 3 years of experience group (9.5%). The majority of the board of education members group (61.8%) were in the mid-range group with 3 to 10 years experience with 42 reporting respondents and an even distribution into the other ranges with 16.2% in the under 3 years and 17.6% in the over 10 years areas. There were 3 respondents that omitted information on this section of the survey.

Geographic location of district

The distribution of respondents with regard to the geographic location of their representative school districts showed a slight weighting in the section of the state between highway 20 and Interstate 80 with 37.0% of the responses in that region. The region north of highway 20 had 90 respondents for 31.1% and the area south of Interstate 80 was represented by 92 responses for 31.8% of the total.

Reliability Analysis of the Instrument

The SPSS package (version 6.1.1 for Power Macintosh) was utilized to conduct reliability analyses of the instrument. Analyses were conducted for each of the seven FAPA categories, for the three efficacy levels of satisfaction, and for the overall scale (total instrument). The Cronbach alpha reliability coefficients, which may include a range from zero to 1 (including negative
values when items are not appropriately coded) are reported in Tables 6, 7 and 8. An overall reliability of .75 for the entire instrument is provided on Table 6. During the processing of the reliability data item 9 was identified as being a major contributor to the reduction of the reliability results for the special education FAPA and was removed from calculations and hypotheses testing. Item 10 was found to have an ending phrase omitted from the final printed surveys, however the reliability was not improved if that item was removed from the study.

Table 6. Reliability analysis of the instrument

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Board member</th>
<th>Business manager</th>
<th>Teacher</th>
<th>Superintendent</th>
<th>Total</th>
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<tbody>
<tr>
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<td>N</td>
<td>R</td>
<td>N</td>
<td>R</td>
</tr>
<tr>
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<td>67</td>
<td>.73</td>
<td>73</td>
<td>.75</td>
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</table>
| Items 7-36 (excluding item 9) |       |       |       |       |       |       |       |       |       |       | Note: data processed using converted support for change scores

The alpha coefficients, as shown on Table 7 for the seven FAPA categories, ranged from a low of .29 on the categorically funded services and programs FAPA to a high of .88 on the early childhood programs FAPA.

A reliability score range for the three efficacy levels, as shown on Table 8 for all respondents, resulted in a low valence of .40 in the support for significant change items to results of .61 and .53 for the areas of supporting the status quo and support for moderate change items.

A reasonable question may be asked as to the level of reliability appropriate for this study. One authority on the subject suggests that modest reliabilities of .50 to .60 are adequate for early stages of research (Struening and Guttentag, 1975). As there were no available commercial instruments for this study an overall reliability of .75 on the locally developed survey will be accepted as appropriate. Due to the relatively low reliability results on specific categories, attention needs to be addressed to the reliability results in Table 7 regarding the scores for the FAPA categories within job responsibility groups.
prior to further statistical analysis and generalization to the population. This is of most concern when working with the FAPAs of 1) categorically funded services and program ($R = .29$), 2) fairness and *adequacy of funding* ($R = .34$), 3) *predictability of funding* ($R = .33$), and 4) *special education* ($R = .41$).

Table 7. Reliability analysis of the instrument's seven FAPA categories

<table>
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<td>.29 73</td>
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<td>.53 73</td>
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<td>.57 72</td>
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*Note: data processed using converted support for change scores*
Table 8. Reliability analysis of the instrument's efficacy levels of satisfaction

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<th>Superintendent</th>
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Note: data processed using converted support for change scores

Statistical Analysis and Findings to Hypotheses

Conventional testing of null hypothesis was completed utilizing the following identified null hypotheses listed as numbers one, two, three, five, and six. In the testing situations an alpha level of .05 was applied to determine if a statistically significant difference existed in at least two group means. A statistically significant finding resulted in the rejection of the null hypothesis and acceptance of the inequality of relationship between the means in question. Following a rejection of the null hypothesis the Scheffé test was then used to identify which group means were statistically different. The data source for all hypotheses was obtained from a survey instrument using a five step Likert-type response mechanism using a scale of: (5 = strongly agree, 4 = agree, 3 = no opinion/don't understand, 2 = disagree, 1 = strongly disagree). The means and standard deviations for each of the four responsibility groups and a total for all respondents may be found in Table 9.
Table 9. Mean and standard deviation results for each item by responsibility group

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<td>1.32</td>
<td>3.15</td>
</tr>
</tbody>
</table>

Note: results compiled using raw score data (excluding item 9)
Scale used (1=strongly disagree, 2=disagree, 3=no opinion, 4=agree, 5=strongly agree)
Particular attention is directed to those results exhibiting a substantial amount of respondent agreement/disagreement by virtue of a mean exceeding 4.0 (agree) or falling below 2.0 (disagree), therefore the following items were arbitrarily selected for specific attention.

Those items receiving a 4.0 or better overall mean score included item 7 (Additional student weightings should continue to provide the money needed for the special education programs for special education students) as it received an overall mean of 4.33 with all four responsibility groups registering above 4.21. This would indicate strong support to continue funding of special education programs and services via a student weighting mechanism.

Support was also evident for item 35 (Schools could make better long-range plans if funding commitments were provided 3-5 years in advance by the state) as it yielded an overall mean of 4.05. The lowest mean score for this item of 3.93 came from the Board of Education respondents and the highest mean score (+ 4.15) from the Superintendents.

The highest degree of agreement for an item was an overall mean of 4.63 for item 24 (It is in the state’s best interest to ensure that students receive comparable educational programs and services from their schools regardless of where they live in Iowa). This item received the highest score for each job responsibility group over all other survey items.

Two survey items received overall means of less than 2.0, indicating disagreement with their respective statement items. An overall mean of 1.88 on item 11 (Special education funding is adequately addressed by current laws and rules) illustrates the concern all respondents had regarding the inadequate funding of special education programs and services.

A low item overall mean score of 1.84 was calculated for item 19 (The current laws adequately address school building needs and should be continued). This expresses uniform dissatisfaction with the current methods of providing for public school facility needs.
Hypothesis 1

"There is no difference in the support of each FAPA criteria within each of the responsibility groups."

The question to be answered with this hypothesis was to determine if there was a difference in the responses to the individual survey items among the four job responsibility groups. The one-way ANOVA procedure was implemented to test the above with the results shown in Tables 10 through 16. Those items that demonstrated a statistically significant difference ($\alpha = .05$) were then subjected to examination using the Scheffé test to identify which responsibility group(s) means were statistically different.

Special Education Program Funding FAPA

Table 10 shows of the four survey items in this FAPA group only item 11 (Special education funding is adequately addressed by current laws and rules) yielded an $F = 7.57$ (3, 284), ($p < .001$), which was significant. A statistically significant difference was determined by the Scheffé technique between the teacher respondent group (mean = 2.33) and all other respondent groups (board of education mean = 1.76, business manager mean = 1.68, superintendent mean = 1.73).

<table>
<thead>
<tr>
<th>Items</th>
<th>D.F.</th>
<th>S.S.</th>
<th>M.S.</th>
<th>F-Ratio</th>
<th>F-probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Between Groups</td>
<td>3</td>
<td>1.45</td>
<td>0.48</td>
<td>0.46</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>284</td>
<td>298.55</td>
<td>1.05</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Between Groups</td>
<td>3</td>
<td>4.94</td>
<td>1.65</td>
<td>0.94</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>284</td>
<td>496.05</td>
<td>1.75</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Between Groups</td>
<td>3</td>
<td>1.58</td>
<td>0.53</td>
<td>0.53</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>284</td>
<td>283.08</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Between Groups</td>
<td>3</td>
<td>20.40</td>
<td>6.80</td>
<td>7.57</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>284</td>
<td>255.10</td>
<td>0.90</td>
<td></td>
</tr>
</tbody>
</table>

*** significant at .001
Categorically Funded Services and Programs FAPA

The ANOVA summary in Table 11 identified survey item 13 (Busing students to and from school should be funded from a fund apart from the general fund instructional budget) to yield an $F = 5.41 (6, 284) \ (p < .001)$. The Scheffé analysis indicates the means for superintendent respondents (mean = 4.04) to be statistically different than the mean for business manager respondents (mean = 3.42) and board of education respondents (mean = 3.37).

Table 11. One-way analysis of variance (Categorically Funded Services and Programs FAPA)

<table>
<thead>
<tr>
<th>Items</th>
<th>D.F.</th>
<th>S.S.</th>
<th>M.S.</th>
<th>F-Ratio</th>
<th>F-probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>Between Groups</td>
<td>3</td>
<td>8.18</td>
<td>2.73</td>
<td>1.91</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>285</td>
<td>407.82</td>
<td>1.43</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Between Groups</td>
<td>3</td>
<td>22.46</td>
<td>7.49</td>
<td>5.41</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>284</td>
<td>393.21</td>
<td>1.38</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Between Groups</td>
<td>3</td>
<td>2.50</td>
<td>0.83</td>
<td>0.66</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>284</td>
<td>358.11</td>
<td>1.26</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Between Groups</td>
<td>3</td>
<td>3.96</td>
<td>1.32</td>
<td>0.95</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>285</td>
<td>396.13</td>
<td>1.39</td>
<td></td>
</tr>
</tbody>
</table>

*** significant at .001

Infrastructure FAPA

The analysis of respondent group means for all survey items yielded statistically significant results as demonstrated in Table 12. Each survey item was determined to yield a difference between at least two of the responsibility group means.

The ANOVA results for item 16 (Normal/routine facility maintenance expenses should be permissible expenditures from the PPEL fund) yielded an $F = 3.24 (3, 284) \ (p < .023)$. The Scheffé test failed to identify which group means were statistically different. Inspection of the means for each responsibility group (Table 9) show the business managers mean to equal 3.43 and the boards of education mean to equal 3.49. Higher mean scores were
found for the teacher respondents (mean = 3.86) and the superintendent respondents (mean = 3.95). Based on observation it is suggested that a difference would exist between the scores for the business manager results and that for the superintendents.

Table 12. One-way analysis of variance (Infrastructure FAPA)

<table>
<thead>
<tr>
<th>Items</th>
<th>D.F.</th>
<th>S.S.</th>
<th>M.S.</th>
<th>F-Ratio</th>
<th>F-probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>Between Groups</td>
<td>33</td>
<td>14.78</td>
<td>4.93</td>
<td>3.24</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>285</td>
<td>433.56</td>
<td>1.52</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Between Groups</td>
<td>3</td>
<td>11.71</td>
<td>3.90</td>
<td>2.73</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>285</td>
<td>407.95</td>
<td>1.43</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Between Groups</td>
<td>3</td>
<td>45.38</td>
<td>15.13</td>
<td>10.62</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>285</td>
<td>406.04</td>
<td>1.42</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Between Groups</td>
<td>3</td>
<td>11.38</td>
<td>3.79</td>
<td>4.15</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>285</td>
<td>260.61</td>
<td>0.91</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Between Groups</td>
<td>3</td>
<td>38.32</td>
<td>12.77</td>
<td>6.61</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>285</td>
<td>550.33</td>
<td>1.93</td>
<td></td>
</tr>
</tbody>
</table>

* significant at .05  ** significant at .01  *** significant at .001

The \( F \) Ratio for Item 17 (The amount of money to be raised for the PPEL fund should be calculated on a per pupil basis rather than on the current property valuation basis) was 2.73 (3, 285) \( (p < .044) \) indicating a rejection of the hypothesis, and a difference between at least two group means. The Scheffé test failed to identify the group means that were different. The group mean scores were the low mean for the board of education respondents of 2.69 with 2.74 for the business manager, 3.00 for the superintendents, and 3.19 for the teacher respondents. Deduction would imply that any difference would likely exist between the board of education and the teacher respondents.

The results of the ANOVA on item 18 (All local property taxes raised for the PPEL fund should be a decision of the local Board of Education) resulted in
an $F = 10.62$ (3, 285) ($p < .001$). The Scheffé analysis showed the statistically significant mean differences to exist between the board of education and teacher respondents with means of 3.22 and 3.33, respectively, compared to the business manager and the superintendent respondents (means of 3.96 and 4.15).

An $F = 4.15$ (3, 285) ($p < .007$) on the ANOVA for item 19 (The current laws adequately address school building needs and should be continued) reveals a difference exists between at least two group means. Application of the Scheffé shows the superintendent respondents (mean = 1.61) to disagree with the statement to a significantly different degree than the board of education respondents (mean = 2.12).

Item 20 (The 60% majority needed to pass bond issues should be adjusted to reflect the age of the building being replaced (replacing a 75 year old building may need only 50% support for bond issue approval)) provided an $F = 6.61$ (3, 285) ($p < .001$) on the ANOVA analysis. The Scheffé test showed the board of education mean of 2.78 to statistically differ from each of the other group means (business manager = 3.55, superintendent = 3.59, and teacher = 3.73).

**Fairness and Adequacy of Funding FAPA**

The ANOVA summaries for this FAPA group are found in Table 13 and indicate the null hypothesis is to be rejected in survey items 22 and 26.

The $F$ Ratio for item 22 (State and local funding for schools is currently adequate to meet the needs of most students) of 3.09 (3, 285) ($p < .028$) necessitated the application of the Scheffé test. The board of education mean of 2.65 was calculated to be significantly different from the teacher respondent mean of 2.05.

The ANOVA for item 26 (The State should provide additional funding for districts identified as having exceptional needs (such as a high poverty area) in order to achieve "fairness") resulted in an $F = 5.49$ (3, 285) ($p < .001$). The
Table 13. One-way analysis of variance (Fairness & Adequacy of Funding FAPA)

<table>
<thead>
<tr>
<th>Items</th>
<th>D.F.</th>
<th>S.S.</th>
<th>M.S.</th>
<th>F-Ratio</th>
<th>F-probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
<td>Between Groups</td>
<td>3</td>
<td>6.90</td>
<td>2.30</td>
<td>1.53</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>285</td>
<td>427.28</td>
<td>1.50</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Between Groups</td>
<td>3</td>
<td>13.09</td>
<td>4.36</td>
<td>3.09</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>285</td>
<td>402.55</td>
<td>1.41</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Between Groups</td>
<td>3</td>
<td>8.08</td>
<td>2.69</td>
<td>2.29</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>285</td>
<td>335.46</td>
<td>1.18</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Between Groups</td>
<td>3</td>
<td>2.27</td>
<td>0.76</td>
<td>2.37</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>285</td>
<td>90.86</td>
<td>0.32</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Between Groups</td>
<td>3</td>
<td>2.66</td>
<td>0.89</td>
<td>0.82</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>285</td>
<td>309.76</td>
<td>1.09</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Between Groups</td>
<td>3</td>
<td>17.31</td>
<td>5.77</td>
<td>5.49</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>285</td>
<td>299.22</td>
<td>1.05</td>
<td></td>
</tr>
</tbody>
</table>

* significant at .05  *** significant at .001

Scheffe test showed the board of education mean (3.34) to be different from the superintendent respondents mean (3.92) and the teachers' mean (3.97).

Unforeseen and emergency needs FAPA

Table 14 summarizes the ANOVA results showing differences in means to exist between means in items 27 and 28.

An $F = 5.25$ $(3, 284)$ ($p < .002$) on item 27 (School districts should be provided a way for local boards of education to raise additional taxes to respond to unforeseen needs, without appealing to the School Budget Review Committee) rejected the null hypothesis and caused the Scheffe to be applied. The Scheffe results showed the superintendent respondents (mean = 3.96) to be significantly more in agreement with the statement than the board of education respondents (mean = 3.25).
Item 28 (Unforeseen needs can be adequately met within the current structure. School districts should only be granted additional taxing power by the current process (School Budget Review Committee review)) ANOVA results showed a difference to exist between at least two group means with an $F = 4.80 (3, 284) (p < .003)$. The board of education group response (mean = 2.90) was shown through the Scheffé calculations to be different from the means of the superintendent respondents (mean = 2.27) and the business manager responses (mean = 2.38).

Table 14. One-way analysis of variance (Unforeseen and Emergency Needs FAPA)

<table>
<thead>
<tr>
<th>Items</th>
<th>D.F.</th>
<th>S.S.</th>
<th>M.S.</th>
<th>F-Ratio</th>
<th>F-probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>27</td>
<td>Between Groups</td>
<td>3</td>
<td>19.40</td>
<td>6.47</td>
<td>5.25</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>284</td>
<td>349.71</td>
<td>1.23</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Between Groups</td>
<td>3</td>
<td>15.83</td>
<td>5.28</td>
<td>4.80</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>284</td>
<td>312.15</td>
<td>1.10</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Between Groups</td>
<td>3</td>
<td>5.96</td>
<td>1.99</td>
<td>2.30</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>284</td>
<td>245.20</td>
<td>0.86</td>
<td></td>
</tr>
</tbody>
</table>

** significant at .01

Early Childhood FAPA

The results of the ANOVA on the early childhood items are presented in Table 15. The null hypotheses are rejected indicating a difference exists in group means between respondent groups in items 30, 31, and 32.

The ANOVA for item 30 (It is in our best interest to provide schooling of students at an age earlier than that currently provided for 5 year old children) results include an $F = 8.12 (3, 285) (p < .001)$. The Scheffé test reveals the superintendent respondent score mean of 4.36 to be statistically significantly different from the board of education average score (mean = 3.38) and the teacher average score (mean = 3.59).
The item 31 (Early childhood programs should be funded with a combination of state aid and property taxes similar to the k-12 formula) ANOVA exhibits an $F = 10.56$ (3, 285) ($p < .001$) suggesting a difference exists between at least two of the responsibility group means. The superintendent mean response (mean = 4.36) is different than the means of the remaining three groups (board of education = 3.29, teacher = 3.63, business manager = 3.65) as tested via the Scheffé technique. These results suggest the superintendent respondents express more agreement with the statement than the other respondents.

Table 15. One-way analysis of variance (Early Childhood FAPA)

<table>
<thead>
<tr>
<th>Items</th>
<th>D.F.</th>
<th>S.S.</th>
<th>M.S.</th>
<th>F-Ratio</th>
<th>F-probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>Between Groups</td>
<td>3</td>
<td>38.71</td>
<td>12.90</td>
<td>8.12</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>285</td>
<td>436.84</td>
<td>1.53</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>Between Groups</td>
<td>3</td>
<td>43.91</td>
<td>14.64</td>
<td>10.56</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>285</td>
<td>395.14</td>
<td>1.39</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>Between Groups</td>
<td>3</td>
<td>26.44</td>
<td>8.81</td>
<td>5.27</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>285</td>
<td>476.37</td>
<td>1.67</td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>Between Groups</td>
<td>3</td>
<td>9.81</td>
<td>3.27</td>
<td>2.19</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>285</td>
<td>425.82</td>
<td>1.49</td>
<td></td>
</tr>
</tbody>
</table>

**significant at .01   *** significant at .001

The ANOVA for item 32 (Programs for children under 5 years of age should remain the responsibility of parents and the private sector (preschools, nursery schools, churches, etc.)) reveals an $F = 5.27$ (3, 285) ($p < .002$). This verifies a rejection of the hypothesis and indicates that a difference exists between at least two group means. The mean of the superintendent respondents (mean = 2.12) is shown by the Scheffé process to be different from the means of the business manager (mean 2.73) and the board of education (mean = 2.94).
Predictability of Funding for Long-Term Planning:

The results of ANOVA processing of items 34, 35, and 36 in Table 16 fail to demonstrate that the group mean scores for any of the respondent responsibility groups are statistically different from the others. The null hypotheses are rejected for these three items.

Table 16. One-way analysis of variance (Predictability of Funding for Long-Term Planning FAPA)

<table>
<thead>
<tr>
<th>Items</th>
<th>D.F.</th>
<th>S.S.</th>
<th>M.S.</th>
<th>F-Ratio</th>
<th>F-probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>34</td>
<td>Between Groups</td>
<td>3</td>
<td>5.72</td>
<td>1.91</td>
<td>1.40</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>285</td>
<td>387.00</td>
<td>1.36</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>Between Groups</td>
<td>3</td>
<td>1.78</td>
<td>0.59</td>
<td>0.67</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>285</td>
<td>251.54</td>
<td>0.88</td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>Between Groups</td>
<td>3</td>
<td>8.68</td>
<td>2.89</td>
<td>1.78</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>285</td>
<td>463.55</td>
<td>1.63</td>
<td></td>
</tr>
</tbody>
</table>

Hypothesis 2

"There is no difference in the mean 'support for change' scores between the seven FAPA categories."

The question prompting this hypothesis (How much support for change exists between the seven FAPA categories?) required the use of converted 'support for change' scores in the data analysis. The ANOVA in Table 17 reveals an $F = 12.33$ (6, 2014) ($p < .001$) showing a significant difference exists between the means of at least two of the FAPA categories. The Scheffé test revealed a significant difference to exist between the mean of the categorical program FAPA (mean = 3.30) and the means of four other FAPA groups (infrastructure mean = 3.57, early childhood mean = 3.62, fairness and adequacy mean = 3.63, emergency mean = 3.69). The mean score for special education FAPA of 3.32 was also determined to be different from the four means above. Another difference was identified between the mean for the
Table 17. One-way analysis of variance (seven FAPA categories)

<table>
<thead>
<tr>
<th>Dimension</th>
<th>D.F.</th>
<th>S.S.</th>
<th>M.S.</th>
<th>F-Ratio</th>
<th>F-probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAPA Categories</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>6</td>
<td>42.59</td>
<td>7.10</td>
<td>12.33</td>
<td>&lt;.001***</td>
</tr>
<tr>
<td>Within Groups</td>
<td>2014</td>
<td>1159.31</td>
<td>.58</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*** significant at .001

predictability of funding FAPA (mean = 3.44) and the emergency funding FAPA (mean = 3.69).

Hypothesis 3

"There is no difference among the three efficacy levels of satisfaction."

The question at issue driving this hypothesis is "Is there a congruent response across the three efficacy levels of satisfaction?" Stated in a different manner the researcher was attempting to determine if there was strength of support for one of the efficacy areas over another. Raw score data were used in these computations as a high score of 5 (strongly agree) would indicate support for the item being addressed. The distribution of items in the three efficacy (support for change) categories may be found in Appendix F.

The analysis of the data via ANOVA provided in Table 18 lists an \( F = 62.31 \) (2, 864) \( (p < .001) \) indicating at least two of the groups differ in their mean scores. This indicates a rejection of the null hypothesis.

The Scheffé test suggests that all group means were statistically different from each other. The mean for maintaining the status quo (mean = 3.31) was statistically different from the mean supporting moderate change (mean = 3.79) and the mean supporting significant funding policy changes (mean = 3.57). The mean supporting moderate change (mean = 3.79) and the mean supporting significant funding policy changes (mean = 3.57) were also calculated as being statistically significantly different.
Table 18. One-way analysis of variance (three efficacy levels)

<table>
<thead>
<tr>
<th>Dimension</th>
<th>D.F.</th>
<th>S.S.</th>
<th>M.S.</th>
<th>F-Ratio</th>
<th>F-probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficacy levels</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>33.37</td>
<td>16.68</td>
<td>62.31</td>
<td>&lt;.001 ***</td>
</tr>
<tr>
<td>Within Groups</td>
<td>864</td>
<td>231.35</td>
<td>.27</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*** significant at .001

Hypothesis 4

"There is no positive correlation in priority rankings of the FAPA across job responsibility groups."

The question stimulating the development of this hypothesis was "What level of agreement is there across the responsibility groups in the priority rankings of the FAPA criteria?" The intent of this question and hypothesis was to determine the level of agreement across the responsibility groups in the priority rankings of the FAPA criteria. Raw score data was used with a summary of the application of the Spearman rho technique provided in Table 19.

Correlations for the six bivariate measures resulted in the highest relationship between the board member and business manager respondents ($r$.

Table 19. Correlation of survey item priority between responsibility groups

<table>
<thead>
<tr>
<th></th>
<th>Board member</th>
<th>Business manager</th>
<th>Superintendent</th>
<th>Teacher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board member</td>
<td>-</td>
<td>.929</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business manager</td>
<td>.902</td>
<td>.882</td>
<td>.836</td>
<td>-</td>
</tr>
<tr>
<td>Superintendent</td>
<td>.886</td>
<td>.890</td>
<td></td>
<td>-</td>
</tr>
</tbody>
</table>

* Spearman rho process applied utilizing raw score data
** critical value for 1-tail correlation significance of correlation ≠ 0 at $\alpha = .05$ with df 27 = .311 (Hinkle, Wiersma, & Jurs table C.7)
and the lowest relationship between the superintendent and teacher respondents \((r_{s} = .836\)\). All other paired correlations fell between the above narrowly spaced results. There are no firm criteria regarding what constitutes an appropriate interpretation of the strength of a correlation. A rule of thumb is provided by *Hinkle, Wiersma, & Jurs* (1994) to indicate the relationships received in this analysis may by interpreted as high (.70 to .90) to very high (.90 to 1.00) correlations. The null hypothesis is rejected.

The concept of “coefficient of determination” may also be applicable in describing a measure of correlation. The coefficient of determination is the square of the correlation and equals the proportion of the variance in one variable that can be associated with the variance in another variable. Application of this concept would result in the statement that 86% of the variance in board of education mean responses can be associated with the variance in business manager mean responses. This is describing a proportion of shared variance, not a causal relationship (*Hinkle, Wiersma, & Jurs*, 1994).

**Hypothesis 5**

> "**There is no difference in the support for change among the board of education group when considering:**
> a - size of resident district.
> b - geographic location of resident district.
> c - respondent’s total years of experience in the current responsibility group."

“How do the levels of perceived support for change differ within the board of education group when the demographics of size of resident district, geographic location of resident district, and respondent’s total years of experience are considered?” was the question driving this three part hypothesis. As the point of interest was with regard to the difference in support for change among the independent variable identifiers converted ‘support for change’ scores were utilized in the analysis in Table 20.
Table 20. One-way analysis of variance (board member support for change)

<table>
<thead>
<tr>
<th>Demographic Characteristics</th>
<th>D.F.</th>
<th>S.S.</th>
<th>M.S.</th>
<th>F-Ratio</th>
<th>F-probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>District size</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>.81</td>
<td>.40</td>
<td>2.36</td>
<td>.102</td>
</tr>
<tr>
<td>Within Groups</td>
<td>65</td>
<td>11.11</td>
<td>.17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>District location</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>.21</td>
<td>.11</td>
<td>.58</td>
<td>.561</td>
</tr>
<tr>
<td>Within Groups</td>
<td>65</td>
<td>11.71</td>
<td>.18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Years of experience as board members</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>.44</td>
<td>.22</td>
<td>1.29</td>
<td>.284</td>
</tr>
<tr>
<td>Within Groups</td>
<td>62</td>
<td>10.63</td>
<td>.17</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The ANOVA summary data provided in Table 20 provides the information to respond to the three parts of the hypothesis. The difference in district size variable calculations resulted in an F(2,65) (p = .102). An F(2,65) (p = .561) was determined for the mean scores as analyzed based upon geographic location of the board of education member's school district. The final variable, experience as a public school member of the board of education, generated an F(2,65) (p = .284) in the ANOVA.

These analyses fail to support the premise that a difference in board of education support for change exists based on district size (certified enrollment), location in the state (north vs. south), or experience as a school board member. All hypotheses were unable to be rejected; therefore, the Scheffe test was not applicable in any of these situations.

**Hypothesis 6**

"There is no difference in the support for change among the superintendent group when considering:
- size of resident district.
- geographic location of resident district.
- respondent's total years of experience in the current responsibility group"
The question driving this hypotheses set is similar to hypothesis 5 with the exception of considering the same variables for superintendents. The question would be stated "How do the levels of perceived support for change differ for superintendents when the demographics of size of resident district, geographic location of resident district, and respondent's total years of experience are considered?" Converted 'support for change' scores were again used to develop the ANOVA summary in Table 21 for this three part hypothesis.

The difference in district size variable calculations resulted in an $F = 1.17 (2, 71) (p < .318)$. An $F = 2.18 (2, 71) (p < .121)$ was determined for the mean scores as analyzed based upon geographic location of the board of education member's school district. The final variable, experience as a public school superintendent generated an $F = .33 (2, 71) (p < .721)$ in the ANOVA.

These analyses fail to support the premise that a difference in support for change exists based on district size (certified enrollment), location in the state (north vs. south), or experience as an Iowa public school superintendent. The null hypothesis was not rejected in any of the situations. The Scheffé test was, therefore, not applicable in any of these situations.

Table 21. One-way analysis of variance (superintendent support for change)

<table>
<thead>
<tr>
<th>Demographic Characteristics</th>
<th>D.F.</th>
<th>S.S.</th>
<th>M.S.</th>
<th>F-Ratio</th>
<th>F-probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>District size</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>.30</td>
<td>.15</td>
<td>1.17</td>
<td>.318</td>
</tr>
<tr>
<td>Within Groups</td>
<td>71</td>
<td>9.00</td>
<td>.13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>District location</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>.54</td>
<td>.27</td>
<td>2.18</td>
<td>.121</td>
</tr>
<tr>
<td>Within Groups</td>
<td>71</td>
<td>8.75</td>
<td>.12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Years of experience as board members</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>.09</td>
<td>.04</td>
<td>.33</td>
<td>.721</td>
</tr>
<tr>
<td>Within Groups</td>
<td>71</td>
<td>9.20</td>
<td>.13</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Summary of Statistical Analyses

This section will summarize the results of the statistical findings of the hypotheses presented in the study.

**Hypothesis 1**

This hypothesis tested if the four job responsibility groups differed in their responses to the individual survey items.

The only special education FAPA item that yielded a significant difference in means was item 11 (Special education funding is adequately addressed by current laws and rules) which showed the teacher respondents to be less in disagreement with the statement than the other three responsibility groups that were more neutral in their responses.

The categorically funded services and programs FAPA identified survey item 13 (Busing students to and from school should be funded from a fund apart from the general fund instructional budget) as having a mean for superintendent respondents that was statistically different than the means for business manager respondents and board of education respondents.

The analysis of respondent group means for infrastructure FAPA survey items yielded statistically significant results for all items. Item 16 (Normal/routine facility maintenance expenses should be permissible expenditures from the PPEL fund) found the superintendent and teacher respondents to be more in agreement than the other two groups. The amount of money to be raised for the PPEL fund should be calculated on a per pupil basis rather than on the current property valuation basis was found to be disagreed to more by board members and business managers than superintendents and teachers.

Superintendents and business managers registered significantly higher mean scores than teachers and board members to support item 18 (All local property taxes raised for the PPEL fund should be a decision of the local Board of Education). Item 19 (The current laws adequately address school building needs and should be continued) was found to be disagreed to more by
superintendents than board members. The board of education members were found to be near neutral in their response to item 20 (The 60% majority needed to pass bond issues should be adjusted to reflect the age of the building being replaced (replacing a 75 year old building may need only 50% support for bond issue approval) as opposed to a moderate agreement support by the other three respondent groups.

The fairness and adequacy of funding FAPA found statistical differences to exist in two of this groups' items. Item 22 (State and local funding for schools is currently adequate to meet the needs of most students) found the board of education mean to be less in disagreement from the teacher respondent mean. Superintendent and teacher respondents were in greater agreement to item 26 (The State should provide additional funding for districts identified as having exceptional needs (such as a high poverty area) in order to achieve "fairness.") than the board of education respondents.

Unforeseen and emergency needs FAPA item 27 (School districts should be provided a way for local boards of education to raise additional taxes to respond to unforeseen needs, without appealing to the SBRC) found the superintendent respondents to be significantly more in agreement with the statement than the board of education respondents. Identified differences in group means. The means of the superintendent respondents and the business manager responses were more in disagreement with item 28 (Unforeseen needs can be adequately met within the current structure. School districts should only be granted additional taxing power by the current process (SBRC review)) than the board of education group response.

Item 30 (It is in our best interest to provide schooling of students at an age earlier than that currently provided for 5 year old children) in the early childhood FAPA was found to have mean respondent scores for the superintendent statistically more in agreement than the average scores for the board of education and teacher respondents. The superintendent responses were found to be more strongly in agreement with item 31 (Early childhood programs should be funded with a combination of state aid and
property taxes similar to the K-12 formula) than the means of the remaining three groups. Superintendent respondents were shown to be more in disagreement with item 32 (Programs for children under 5 years of age should remain the responsibility of parents and the private sector (preschools, nursery schools, churches, etc.) than business manager and board of education respondents.

The results of ANOVA processing of predictability of funding for long-term planning FAPA items fail to demonstrate that the group mean scores for any of the respondent responsibility groups are statistically different from the others.

Hypothesis 2

This analysis was to determine if a difference existed between the seven FAPA areas in terms of overall respondent support for change to the existing funding policies. The ANOVA rejected the null hypothesis with the Scheffé test determining the infrastructure, early childhood, fairness and adequacy, and emergency areas to be significantly more favored for change by the respondents than the special education and categorical program funding areas. Another difference was identified as more support for changes emergency funding FAPA than for the predictability of funding FAPA.

Hypothesis 3

This question was to determine if there was a difference in support for 1) maintaining the status quo, 2) supporting moderate change, or 3) supporting significant changes in school funding policies. The means for all three categories were statistically different from one another and the null hypothesis rejected. The mean for maintaining the status quo was most near to the neutral score with the mean supporting moderate change receiving the highest support for change and the mean supporting significant funding policy changes falling between the other two.
Hypothesis 4

A correlation procedure was used to determine if the four respondent groups agreed, to a statistically significant positive degree, with regard to the order of support given the survey items. The results indicate a very high degree of agreement (correlation) between all groups, rejecting the null hypothesis.

Hypothesis 5

This hypothesis set tested the impact district size, geographic location, and experience had on board of education responses with regard to support for funding policy changes. The ANOVA failed to identify any differences based on the study factors and the null hypotheses were not rejected.

Hypothesis 6

This question was similar to the issue in hypothesis 5 with the study directed at superintendent responses based on the same factors. These analyses also failed to reject the null hypotheses and found no response differences due to the stated factors.

Chapter Summary

This chapter presented the findings of the study and responded to the research questions. Demographic characteristics of the survey respondents were described by job responsibility, gender, age, experience in the current position, district size, and general district location within the state.

Tests of the hypotheses comparing job responsibility differences in responses to the individual survey items resulted in significant differences in 14 of the 29 survey items. A majority of the responsibility group differences were found in the infrastructure and early childhood FAPA.

A comparison of the seven FAPA categories found infrastructure, early childhood, fairness and adequacy, and emergency areas to be significantly more favored for change than the special education and categorical program
funding. The hypothesis testing the three efficacy categories was rejected with the finding that differences exist among all categories of support for change with the highest level of agreement in the moderate change efficacy level.

A significant correlation was found among the four job responsibility groups in regard to the order of support given to each survey item. The null hypothesis was rejected in all six bivariate correlations indicating a very high degree of agreement among all responsibility groups.

In addition statistical analyses failed to reject the null hypotheses that differences among board of education respondents or superintendent respondents were different based on the criteria of experience, size of district, or geographic location of district in the state.
CHAPTER 5. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

The preceding chapters identified the purpose of the study, review of relevant literature, methodology, data analysis, and presented the statistical findings. This chapter summarizes the findings, draws conclusions, and makes recommendations based on the study findings.

The purpose of this study was to provide information, assistance, and insight to Iowa policy makers as deliberations begin to review the funding legislation for Iowa's public schools. This is timely as the June, 2001 sunset date approaches for termination of the current law. This study was not designed to discuss methods of taxation but rather to address the general attitude of support for preserving and continuing the current funding policies, or pursuing changes in those policies.

The perspectives of board of education members, superintendents, teachers, and business managers were solicited as these individuals are charged with the efficient delivery of public education in the state. The instrument was completed by respondents representing 74 public schools in Iowa with a total of 289 usable surveys being returned of a possible 296 representing a 97.6% response rate.

The data were collected via survey instrument using a five point Likert scale. A panel of experts in Iowa school finance (Appendix C) was used to develop the printed survey as a commercial or otherwise previously validated instrument suitable for this application was not available. The expert panel identified seven Financial Allocation Policy Areas (FAPA) considered to be crucial to the funding of Iowa's public schools. Individual survey items were developed under each FAPA to measure the survey respondents' support to continue the status quo, support moderate change, or support significant change to the existing funding provisions. A description of the FAPA topics and the survey items can be found in Appendix A.
Summary of Research Questions
The study was designed to answer the following research questions.

**Question 1:** Do perceptions as measured by the FAPA instrument differ within the responsibility group?

**Question 2:** How much support for change exists between the seven FAPA categories?

**Question 3:** Is there a congruent response across the three efficacy levels (support for change) of satisfaction?

**Question 4:** What level of agreement is there across the responsibility groups in the priority rankings of the FAPA criteria?

**Question 5:** How do the levels of perceived support for change differ within the board of education group when the demographics of size of resident district, geographic location of resident district, and respondent's total years of experience are considered?

**Question 6:** How do the levels of perceived support for change differ for superintendents when the demographics of size of resident district, geographic location of resident district, and respondent's total years of experience are considered?

Findings by Research Question

**Question 1**
This question included a study of each survey item to determine if the four job responsibility groups (board of education members, business managers, superintendents, and teachers) had similar, or differing, perspectives on the items. The statistical analyses resulted in 14 survey items that were determined to be statistically significant, meaning that at least two of the responsibility groups had differing perspectives. To facilitate the interpretation and understanding of the results of this analyses an abbreviated, or outline, format will be employed. The survey statements, enclosed in parentheses, are printed below the FAPA topic followed by analyses statements.
Special Education FAPA
1 (Special education funding is adequately addressed by current laws and rules.) Teacher respondents were less in disagreement with the statement than board members, business managers, and superintendents. All respondent groups reported the position that some change was desired in the current system.

Categorically Funded Services and Programs FAPA
1 (Busing students to and from school should be funded from a fund apart from the general fund instructional budget.) The mean for superintendent respondents was statistically higher than the means for business manager and board of education respondents on this statement.

Infrastructure FAPA
Statistically significant results were determined for all items in this FAPA.
1 (Normal/routine facility maintenance expenses should be permissible expenditures from the Physical Plant and Equipment Levy fund.) Superintendent and teacher respondents were higher in agreement to the statement than the other two groups with all groups reporting agreement scores.

2 (The amount of money to be raised for the Physical Plant and Equipment Levy fund should be calculated on a per pupil basis rather than on the current property valuation basis.) Board members and business managers disagree to a greater extent with this statement than superintendents and teachers, who tended to be more neutral.

3 (All local property taxes raised for the Physical Plant and Equipment Levy fund should be a decision of the local Board of Education.) Superintendents and business managers registered significantly higher mean scores than teachers and board members in agreement with the statement.
4 (The current laws adequately address school building needs and should be continued.) Superintendents disagreed with the statement more than board members.

5 (The 60% majority needed to pass bond issues should be adjusted to reflect the age of the building being replaced (replacing a 75 year old building may need only 50% support for bond issue approval).) Board of education members were found to be near neutral in their response to this item as opposed to moderate agreement by the other three respondent groups.

**Fairness and Adequacy of Funding FAPA**

1 (State and local funding for schools is currently adequate to meet the needs of most students.) The board of education mean response score was less in disagreement than the teacher respondent mean score.

2 (The State should provide additional funding for districts identified as having exceptional needs (such as a high poverty area) in order to achieve “fairness.”) Superintendent and teacher respondents were in greater agreement to the statement than board of education respondents.

**Unforeseen and Emergency Needs FAPA**

1 (School districts should be provided a way for local boards of education to raise additional taxes to respond to unforeseen needs, without School Budget Review Committee appeal.) Superintendent respondents were found to be significantly more in agreement with the statement than the board of education respondents.

2 (Unforeseen needs can be adequately met within the current structure. School districts should only be granted additional taxing power by the current process of requiring School Budget Review Committee approval.) Superintendent respondents and the business managers were more in disagreement with the statement than the board of education respondents.
Early Childhood FAPA

1 (It is in our best interest to provide schooling of students at an age earlier than that currently provided for five-year old children.) Mean respondent scores for the superintendents were statistically more in agreement to the statement than the average scores for the board of education and teacher respondents.

2 (Early childhood programs should be funded with a combination of state aid and property taxes similar to the K-12 formula.) Superintendent responses were found to be more strongly in agreement to the statement than the remaining three groups.

3 (Programs for children under five years of age should remain the responsibility of parents and the private sector (preschools, nursery schools, churches, etc.) Superintendent respondents were shown to be more in disagreement with the statement than business manager and board of education respondents.

Predictability of Funding for Long-Term Planning FAPA

No differences in respondent scores were identified.

Question 2

This analysis of this question was to determine if a difference existed between the seven FAPA areas in terms of overall support for change to the existing funding policies. The ANOVA determined rejection of the null hypothesis and at least two differences existed with the Scheffé test identifying the infrastructure, early childhood, fairness and adequacy, and unforeseen and emergency need areas to be significantly more favored for change than the special education and categorical program funding areas. Another difference was identified as greater support for changes to the emergency funding FAPA than for the predictability of funding FAPA. It is also noted that the mean scores for all FAPA categories fell between the response options of “no opinion” (3) and “agree” (4).
**Question 3**

This question was to determine if there was a difference in support for 1) maintaining the status quo, 2) supporting moderate change, or 3) supporting significant changes in school funding policies. The ANOVA rejected the null hypothesis with the Scheffé indicating the means for all three categories were statistically different from one another. The mean for maintaining the status quo was most near to the neutral score with the mean supporting moderate change receiving the highest support for change and the mean supporting significant funding policy changes falling between the other two means.

**Question 4**

A correlation procedure was used to determine how closely the four respondent groups agreed with regard to the order of support given each survey item. The null hypothesis was rejected in all six bivariate correlations indicating a positive relationship did exist in all comparisons. The results indicate a high degree of agreement (correlation) between all groups.

**Question 5**

Three hypotheses were implemented to test the impact district size, geographic location, and experience as a school board member had on board of education responses with regard to support for funding policy changes. The ANOVA failed to reject the three null hypotheses to identify any differences based on the study factors.

**Question 6**

This question was similar to the issue in question 5 with the study directed at superintendent responses based on the same factors as the board members. These analyses also failed to reject the null hypotheses and find response differences due to the stated factors.
Limitations

1. The sample represented perspectives from respondents in 74 of the state's public school districts. This may not provide a true reflection of all perspectives as the board of education member was selected by the superintendent and the teacher was chosen by teacher association leadership.

2. An established instrument to discriminate support for change regarding Iowa public school funding laws was not available, necessitating the local development of such an instrument. The inconsistent reliability results tabulated on the resulting instrument indicate some FAPA category survey items would benefit from refinement and further development.

3. Explanatory statements were included in the FAPA sections of the survey instrument to provide a consistent definitional perspective as respondents completed the survey. It remains possible the responses may have been made based on a particular respondent's bias about one aspect of an item rather than viewing the issue from a perspective of maintaining the status quo or supporting change.

4. The data represent perspectives of the selected respondents at a point in time and may change as time passes and new legislation occurs.

5. The topics and issues of the study are limited to the specific interest areas identified as pertinent to Iowa public schools and should not be generalized beyond that limit.

6. Only public school groups (board of education members, business managers, superintendents, and teachers) were included in this study with the acknowledgment that there are many other groups in the state of Iowa that would have an interest in public school funding. These other groups may have significantly different perspectives on the same issues.
7. The study was limited to the perceptions of the above selected education groups concerning preserving or changing existing funding allocation policies. The study did not include a calculated or proposed amount of funding or source of public funding for schools based on the study results.

8. The responses are related to opinions and perceptions of interested and knowledgeable individuals but do not represent quantifiable data to use in evaluating an impact of any specific funding mechanism.

9. Group mean scores for each of the FAPA categories were viewed with the understanding that the number of individual items comprising FAPA categories varied from three survey items to six survey items. One skewed item mean score would have a differing impact on the entire FAPA category mean score depending upon the number of items included in the FAPA category.

Discussion and Conclusions

The two strongest collective statements made by all respondents included issues of special education and fairness and adequacy of funding. The special education survey item receiving the most affirmation was that additional student weighting should continue to be used to determine the funding allocation. Although the survey item did not provide alternative methods a reasonable conclusion from this response may be to discourage the implementation of special education funding being determined as a flat dollar amount, a percent of budget, or percent of total student enrollment. The latter has become the approach used in several states, with some states reporting the development of conflict between “regular education” and “special education” interests when federally mandated special education expenses necessitate the reduction of regular education services or programs (refer to Colorado and
Kansas summaries in the special education section of chapter two in this document).

Agreement with the concept that it is in the state's best interest to ensure that students receive comparable educational services and programs regardless of where they live received the highest overall mean score (4.63) above all other survey items. This serves to enforce the egalitarian concept of public education that has been an historical philosophy since the time of Thomas Jefferson, as previously discussed in chapter two. This may be particularly notable during the present period of our national discussion of educational options, as vouchers and other competitive approaches are proposed to improve the educational system in the United States of America. The response to this particular item would lend credence to the proposition that the groups represented in this study may prefer to work cooperatively to provide a quality opportunity for all students rather than a competitive system that could create "winners" and "losers" in the education of Iowa's students.

The statistical testing of the individual survey items with regard to response differences among the job responsibility groups found 14 of the items to have statistically differing mean scores. A complete discussion of all items occurred in chapter 4 with this section condensing and combining common threads of thought.

Board of education members, business managers, and superintendents were uniform in disagreeing with the statement that the current level of funding for special education needs is adequate. This concern is expressed by these groups as the over-expenditures for special education continue to escalate (Iowa Department of Education, 1997a, January).

The study indicates that superintendents support the concept of separating transportation expenses from the general fund budget to be managed as a categorical program. Disparities in the dollars available for instruction, as daily student transportation is currently managed in the general fund, were identified by example in chapter one of this document. It is
reasonable that superintendents are likely to be more aware of this issue than other groups in the study by virtue of their daily responsibilities.

Support was provided by all respondent groups that several changes should be considered in regard to the Infrastructure FAPA. Items of specific relation to the Physical Plant and Equipment Levy (PPEL) included support for change so normal/routine facility maintenance expenses could be permissible expenditures from the PPEL fund. The reasons for this support may come from multiple motivations. Some may see such a change as "freeing up" general fund dollars currently spent on facility maintenance to be re-allocated for more direct instructional uses. Others, such as business managers and superintendents, may support such a change to clarify their responsibilities as they attempt to differentiate those expenses that are general fund "maintenance" items and those that are PPEL "repair" expenses.

Superintendents had a statistically significant higher level of support than board of education members for a change that would allow board of education discretion be used to raise all funds in the PPEL account. This is in contrast to board of education members who provided more nearly neutral mean response on this issue. This may be a reality of board members being more attuned to thetaxpayers' constituents and superintendents focusing more on the management needs of the district.

A unanimous response from all groups rejected the statement that current laws adequately address building needs.

The Unforeseen and Emergency Needs FAPA items received generally mild support for change by all groups in the study. Superintendents responded most strongly to promote the statement that school districts should be provided a way for local boards of education to raise additional taxes to respond to unforeseen needs, without appealing to the School Budget Review Committee. Business managers reported high agreement to the statement that if a given type of unforeseen need happens to a majority of the districts for a number of years the funding for that need should be incorporated into the general fund formula. These responses may be interpreted as meaning the
"hands on" managers of the school funds are the first individuals to identify an emergency need. They also are directly responsible to determine responses to said needs and could be expected to have stronger sentiments toward the subject than policy-oriented board of education members or contracted teachers.

Positive responses were registered by all groups supporting schooling of students at an age earlier than that currently provided for five year old children. Support was also evident that funding of those programs should be provided with a combination of state aid and property taxes similar to the k-12 formula. This support is consistent with recent proposals made by the governor's commission on educational excellence for the 21st century (Pomerantz, 1997). The referred report expresses the need for early childhood intervention and is supported by the groups represented in this study.

High overall agreement was shown for the improvement of long-range planning if funding commitments were provided 3-5 years in advance by the state. The support by superintendents and teachers may be motivated by the opportunity to enable multi-year negotiated employment contracts. This is desired by some parties in the negotiations process to reduce the time and energy cost to a school system, as well as the potential loss to educational effectiveness while master contract negotiations take place. Staffing and program enhancement/reduction plans could be well-served in the minds of board of education members, superintendents and business managers were predictable funding assurances in place. Proposals to expand or enhance the instructional programs are periodically presented for board of education and administration approval. Assurance of a predictable source, and level, of funding is a great assist in projecting the continuation of adopted proposals.

A broad view of the responses made by the various groups in conjunction with the results of the ANOVA analyses in hypothesis one provide an insight into the superintendent and board of education group perspectives. In those 14 survey items where a statistically significant difference was identified between at least two of the group mean scores the response supporting change in the
current policy was highest for the superintendents in 12 items. The same 14 items resulted in the board of education members recording the lowest support for change in 12 items. The business managers and teachers were more evenly distributed in their group scores. What this may tell us is that, in general, superintendents are interested in pursuing changes to segments of the school funding formula and board of education members are more generally disposed to maintain the status quo. This may be expected as superintendents make a career in the area while board of education members often have fewer years' of experience to develop the understanding of the intricacies of the system and a historical perspective to fully understand the context and long-term implications of a financial issue.

Analysis of the data to compare the support for change to each of the seven FAPA categories found statistical differences between two collective groupings. The FAPA groups including infrastructure, early childhood, fairness and adequacy of funding, and emergency funding were determined to all be in receipt of more support for change than the FAPA categories of categorical funding and special education.

There was a statistically significant difference identified in hypothesis 3 in the total respondent group support for 1) maintaining the status quo, 2) supporting moderate change, or 3) supporting significant changes in school funding policies. The support for moderate change received the highest mean score (3.79), while a neutral, no opinion, score would be 3.00. The support to preserve the status quo received a mean score of 2.69, which is tending toward a "disagree" perspective; and therefore, also indicating support for change. This provides an indication to the legislature that all parties are disposed to desire some changes be made to the current public school funding laws.

All the job responsibility groups represented in this study tend to have a high level of agreement in their prioritization of educational funding matters. This is verified by the correlation of responses between all job responsibility group pairings exceeding .83 as presented in hypothesis 4. As legislators confer with their various constituents regarding the matter of funding public
schools they can be confident that the collective membership of the four groups included in this study tend to express quite similar global priorities.

Board of education members and superintendents responded to the educational funding issues in hypotheses 5 and 6 of this study with no differences identified due to size of school district, geographic location in the state, or experience in their current responsibility. This is a healthy result in dispelling thoughts or concerns that superintendents and board of education members make decisions from self-serving or parochial interests based on their personal experience in the responsibility or based on school district size or location.

Recommendations

1. **Continue the use of student weightings to provide the funding needed for special education programs of special education students.** Support for maintaining the status quo is unanimous by board of education members, business managers, teachers, and superintendents in this study as they encourage continued use of the mechanism of student weightings to provide the money needed for special education programs.

2. **Adjust student weightings for identified special education students to more adequately generate the funding needed to meet those needs.** The current method of knowingly underfunding mandated special education programs places an inordinate share of the financial burden on local property taxpayers. Adjusting the student weightings to more closely match the actual special education expenditures (to eliminate or reduce the overexpenditures) would redistribute the financial/tax burden more fairly between state and local sources. The general inadequacy of the level of special education funding is a concern expressed by board of education members, business managers, and superintendents.
3. **Daily busing of students to and from school should be funded apart from the general fund in a separate categorical fund.** It is recommended that study and consideration be given to this issue to more adequately balance education expenditures among the public school districts. Such a change would be consistent with other recent categorical programs initiated by the legislature (Educational Excellence Phases I-II-III, State Technology Initiative).

4. **Review current laws addressing school building needs.** A strong statement was made by all respondent groups that the current laws regarding construction and maintenance of schools need to be revised. (This survey was conducted prior to general public knowledge of 1997 legislative changes to expand the amount of allowable PPEL tax revenues.)

5. **Review the listing of permissible expenditures that may be made from Physical Plant and Equipment Levy funds.** A periodic review of the Code of Iowa chapter 298.3 would be consistent with the history of the subject of facility funding. The uses have been reviewed and revised over time as the needs and technologies of our existence have developed (expanded use of now extinct Site Fund, expansion of PPEL to include capital equipment purchases). This evolution should continue to provide flexibility and increased local control over locally raised property tax dollars.

6. **Evaluate the impact of all educational legislation to ensure that all students receive comparable educational programs and services without regard to their residence.** The strongest response from all groups in the study was to promote equity of opportunity in programs and services for all students. This was the single loudest "voice" expressed through the study. It reminds policymakers to seek the common good as the focus of all education related legislation. It is incumbent upon them to maintain the courage to avoid special interest proposals or laws that disproportionately benefit one segment of society and disadvantage another.
7. Review the School Budget Review Committee approval process to raise funds for unforeseen needs (unusual enrollment growth, local economic downturns, etc.) to possibly include a more locally controlled method. The School Budget Review Committee currently possesses the authority to allow local school districts to levy additional local property taxes. This system lacks the opportunity for local input into this stage of the process. The addition of a local public hearing would at least provide an opportunity for that input.

8. Provide school for students at an age earlier than that currently provided for five year old children, to be funded with a combination of state aid and property taxes similar to the K-12 formula. The board members, business managers, superintendents, and teachers of Iowa's public schools can be expected to support the recommendation made by the Pomerantz Committee for early childhood education programs.

9. Provide funding commitments to public schools for multiple years in the future. This recommendation is supported as being beneficial to the administration of the schools in terms of staffing, program enhancement/reduction planning, and to allow/encourage multi-year employment contract negotiations. The latter may not be documented, but is understood by practitioners that considerable organization energy and resources are consumed during negotiation seasons. That energy and resource commitment can be preserved to direct to the learning and instruction of students if time spent on negotiations is reduced.

In summary, it may be concluded from the results of this study that all respondent groups included in the survey are desirous of some, but not radical, changes to the current funding formula. A reassuring result of the analysis of the data generated by this study is that while each job responsibility group may have particular issues on which they differ there is a very high
degree of agreement in their basic priorities with regard to the funding of our public schools. It may also be concluded that global positions, opinions, and perspectives of superintendents and board of education members concerning education funding are consistent without regard to experience in the job, geographic location in the state, or district size.
APPENDIX A. SURVEY INSTRUMENT
Instructions for demographic section: Please check the appropriate answer.

1 - Your Gender: □ Female □ Male
2 - Your Age category: □ under 35 □ 36 to 55 □ 56 or older
3 - Enrollment of K-12 school district in which employed or serve on the board of education. □ under 750 □ 750 to 2000 □ over 2000
4 - Current responsibility category at K-12 school district
   □ Board Member □ Business Manager/Financial Secretary □ Teacher □ Superintendent
5 - Total years of experience in above responsibility at any public school in Iowa
   □ less than 3 years □ 3 to 10 years □ over 10 years
6 - Location of the administration offices for your school district
   □ North of Highway 20 □ Between Highways 20 and 1 - 80 □ South of Interstate 80

Thank you for your voluntary participation. Responses are confidential and will be reported in summary form only.

Each of the following sections has introductory statements to provide a basic understanding and help focus thinking on the topic. Please respond to the numbered statements by circling the appropriate response to each statement using the following code.

SD = strongly disagree  D = disagree  A = agree  SA = strongly agree  NO = no opinion/knowledge

Special Education Program Funding:
• Special education spending has increased at a much higher rate than it has for "regular education" students in recent years.
• Spending on special education programs greater than the amount of revenues for special education students may be collected upon approval of the School Budget Review Committee (the SBRC is a review panel appointed by the Governor). The replacement funds come from additional local district property taxes.

7 - Additional student weightings should continue to provide the money needed for the special education programs for special education students. SD D A SA NO

8 - Student special education costs should be funded entirely by the State (not local district). SD D A SA NO

9 - Spending on special education programs greater than the amount of revenues for special education students should be recovered by a combination of state aid and local property taxes. SD D A SA NO

10 - The current SBRC (School Budget Review Committee) options are adequate for local school districts in replacing special education SD D A SA NO

11. Special education funding is adequately addressed by current laws and rules. SD D A SA NO
Categorically Funded Services and Programs:

- Categorical funds may be spent for ONLY specific purposes.
- Categorical funding is intended to respond to specific needs of students.
- Categorical funding provides a protected source of revenue for those specific purposes. (Talented & Gifted, Phase III, Technology Grant, Special Education, etc.)
- Categorical funding limits the ability of a district to be flexible as needs change.

12 - Separate categorical funds should be provided for local expenses that are difficult to control (property insurance, utilities, etc.)

13 - Busing students to and from school should be funded from a categorical fund apart from the general fund instructional budget.

14 - A few categorical funding areas should continue to be provided (such as Talented & Gifted, Special Education) with most district costs continuing to be accommodated within a comprehensive general fund mechanism.

15 - Existing categorical funds should be eliminated and all school spending for instruction should be incorporated into one all-purpose general fund.

Infrastructure:

- Bond issues for construction of new school buildings currently require sixty percent voter approval.
- The Physical Plant and Equipment Levy Fund (PPEL) provides local taxes for the purposes of remodeling, renovation, and other related improvements to school buildings.
- The funds for the PPEL Fund are all local District taxes with a portion raised by decision of the local school board and another portion requiring a 50% voter approval.
- Normal maintenance and repairs (painting, cleaning, filter replacements, etc.) are to be paid from the General Fund.

16 - Normal/routine facility maintenance expenses should be permissible expenditures from the PPEL fund.

17 - The amount of money to be raised for the PPEL fund should be calculated on a per pupil basis rather than on the current property valuation basis.

18 - All local property taxes raised for the PPEL fund should be a decision of the local Board of Education.

19 - The current laws adequately address school building needs and should be continued.

20 - The 60% majority needed to pass bond issues should be adjusted to reflect the age of the building being replaced (replacing a 75 year old building may need only 50% support for bond issue approval).
Fairness & Adequacy of Funding:

- Fairness is defined as providing the programs and services necessary so students of all abilities and backgrounds can reach the same level of success.
- Adequacy is in response to how much money is enough, or the amount needed to provide a given level of curriculum. It is often thought of as a state formula that assures sufficient funding for districts to pay for the basic instructional programming.

<table>
<thead>
<tr>
<th>Statement</th>
<th>SD</th>
<th>D</th>
<th>A</th>
<th>SA</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>21 - Spending the same amount of money per student provides equal educational opportunity.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22 - State and local funding for schools is currently adequate to meet the needs of most students.</td>
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<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>23 - Voter approval of additional funding (instructional support) is appropriate and should be continued.</td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>24 - It is in the state's best interest to ensure that students receive comparable educational programs and services from their schools regardless of where they live in Iowa.</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>25 - The ICN (Iowa Communications Network) should be quickly completed to offer improved access to instructional programs for all Iowa students.</td>
<td></td>
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<tr>
<td>26 - The State should provide additional funding for districts identified as having exceptional needs (such as a high poverty area) in order to achieve “fairness.”</td>
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</tr>
</tbody>
</table>

Unforeseen and Emergency Needs:

- There are unforeseen circumstances that require substantial cash outlays to resolve (sudden enrollment growth, natural disasters, etc.).
- The current option for schools is to apply to SBRC (School Budget Review Committee) for a temporary increase in the district's allowable growth (all from additional local property taxes).

<table>
<thead>
<tr>
<th>Statement</th>
<th>SD</th>
<th>D</th>
<th>A</th>
<th>SA</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>27 - School districts should be provided a way for local boards of education to raise additional taxes to respond to unforeseen needs, without appealing to the SBRC.</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>28 - Unforeseen needs can be adequately met within the current structure. School districts should only be granted additional taxing power by the current process (SBRC review).</td>
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</tr>
<tr>
<td>29 - If a given type of unforeseen need happens to a majority of the districts for a number of years the funding for that need should be incorporated into the general fund formula.</td>
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</tbody>
</table>
Early Childhood:

• Child developmental efforts are proven to be most effective in the early years of life.
• Early childhood education in this discussion is defined as assistance for 3 and 4 year olds and could include a variety of structured programs or services (classroom, day care, extended year programs).
• Funding under the foundation aid formula is currently provided only for pre-kindergarten youngsters needing special education services.

30 - It is in our best interest to provide schooling of students at an age earlier than that currently provided for 5 year old children. SD D A SA NO

31 - Early childhood programs should be funded with a combination of state aid and property taxes similar to the k-12 formula. SD D A SA NO

32 - Programs for children under 5 years of age should remain the responsibility of parents and the private sector (preschools, nursery schools, churches, etc.). SD D A SA NO

33 - Special funding should be continued only for early childhood programs for special education children. SD D A SA NO

Predictability of Funding for Long-Term Planning:

• Current allowable growth percentages for school budgets are made in advance of the coming budget year (1997-98 and 1998-99 allowable growth rates were established in the 1996 legislative session).
• The percentage amount of allowable growth (funding increase) is a legislative response to the Governor's recommendation.
• The regular program budget of public school districts is presently guaranteed to be at least as much as the prior year budget.
• The property tax rate for school taxes is different for each district depending on the local property value in that district (wealthy districts pay a lower property tax rate to raise a given amount of money).

34 - The current method by which allowable growth as established is appropriate. SD D A SA NO

35 - Schools could make better long-range plans if funding commitments were provided 3-5 years in advance by the state. SD D A SA NO

36 - A statewide property tax levy for school taxes should be considered to better equalize tax rates between districts. SD D A SA NO

THANK YOU FOR YOUR PROFESSIONAL AND PROMPT CONTRIBUTION TO THIS STUDY !!
PLEASE RETURN TO THE BUSINESS MANAGER / FINANCIAL SECRETARY IN THE ENCLOSED ENVELOPE BY MONDAY, OCTOBER 13.

If you wish to receive a summary of the results please complete the information on the return envelope.
APPENDIX B. LIST OF PARTICIPATING SCHOOLS
## Participating School Districts

<table>
<thead>
<tr>
<th>Geographic Region</th>
<th>September 1996 Certified Enrollment</th>
<th>September 1996 Certified enrollment less than 750</th>
<th>September 1996 Certified enrollment between 750 and 2,000</th>
<th>September 1996 Certified enrollment greater than 2,000</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>North of highway 20</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>219.00</td>
<td>SOUTH CLAY</td>
<td>862.50</td>
<td>POCAHONTAS AREA</td>
</tr>
<tr>
<td></td>
<td>276.00</td>
<td>TWIN RIVERS</td>
<td>856.00</td>
<td>MANSION NORTHWEST</td>
</tr>
<tr>
<td></td>
<td>307.30</td>
<td>CARY</td>
<td>1,007.70</td>
<td>EAGLE GROVE</td>
</tr>
<tr>
<td></td>
<td>362.30</td>
<td>ALBERT CITY-TRUESDALE</td>
<td>1,168.40</td>
<td>OSAGE</td>
</tr>
<tr>
<td></td>
<td>622.80</td>
<td>SCHALLER-CRESTLAND</td>
<td>1,286.10</td>
<td>IOWA FALLS</td>
</tr>
<tr>
<td></td>
<td>666.30</td>
<td>MARCUS-MERIDEN-CLEGHN</td>
<td>1,431.00</td>
<td>ESTHERVILLE</td>
</tr>
<tr>
<td></td>
<td>2,453.70</td>
<td></td>
<td>1,478.00</td>
<td>FOREST CITY</td>
</tr>
<tr>
<td></td>
<td>9,818.30</td>
<td></td>
<td>1,738.60</td>
<td>WEBSTER CITY</td>
</tr>
<tr>
<td></td>
<td></td>
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<tr>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Between highway 20 &amp; interstate 80</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>325.80</td>
<td>OLIN CONSOLIDATED</td>
<td>788.40</td>
<td>ELDOA-NEW PROVIDENCE</td>
</tr>
<tr>
<td></td>
<td>383.00</td>
<td>PRESTON</td>
<td>798.40</td>
<td>GIBERT</td>
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<tr>
<td></td>
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<td>WELLSBURG-STEAMBOAT ROCK</td>
<td>958.00</td>
<td>TIPTON</td>
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<tr>
<td></td>
<td>414.40</td>
<td>GM</td>
<td>974.00</td>
<td>MISSOURI VALLEY</td>
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<tr>
<td></td>
<td>480.10</td>
<td>DEXFIELD</td>
<td>1,223.70</td>
<td>UNION</td>
</tr>
<tr>
<td></td>
<td>508.50</td>
<td>WEST HARRISON</td>
<td>1,286.80</td>
<td>BALLARD</td>
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<tr>
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<td>520.40</td>
<td>GUTHRE CENTER</td>
<td>1,417.20</td>
<td>DALLAS CENTER</td>
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<td>679.40</td>
<td>LOGAN-MAGNOLIA</td>
<td>1,502.90</td>
<td>SAYDEL CONSOLIDATED</td>
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<td>720.20</td>
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<td>4,443.70</td>
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<td>1,840.20</td>
<td>CARROLL</td>
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<td><strong>South of interstate 80</strong></td>
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<td></td>
<td>226.00</td>
<td>FREMONT</td>
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<td>INTERSTATE 35</td>
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<td>LAMONI</td>
<td>907.00</td>
<td>COLFAX-MINGO</td>
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<tr>
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<td>457.80</td>
<td>WINFIELD-MT UNION</td>
<td>976.80</td>
<td>WILLIAMSBURG</td>
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<tr>
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<td>476.00</td>
<td>ENGLISH VALLEY</td>
<td>997.70</td>
<td>LOUISA-MUSCATINE</td>
</tr>
<tr>
<td></td>
<td>491.30</td>
<td>VILLISCA</td>
<td>1,093.40</td>
<td>CLARINDA</td>
</tr>
<tr>
<td></td>
<td>555.00</td>
<td>NEW LONDON</td>
<td>1,239.00</td>
<td>MEG-PRAIRIE</td>
</tr>
<tr>
<td></td>
<td>644.20</td>
<td>BEDFORD</td>
<td>1,276.20</td>
<td>CARLISLE</td>
</tr>
<tr>
<td></td>
<td>659.20</td>
<td>UNDERWOOD</td>
<td>1,616.90</td>
<td>WINTerset</td>
</tr>
<tr>
<td></td>
<td>3,999.80</td>
<td></td>
<td>1,981.00</td>
<td>NORWALK</td>
</tr>
</tbody>
</table>
APPENDIX C. EXPERT PANEL DEVELOPING AND VALIDATING SURVEY INSTRUMENT
EXPERT PANEL TO DEVELOP & VALIDATE SURVEY INSTRUMENT

Dr. Wm. Poston, Professor
Iowa State University

Dr. George Chambers, Professor
University of Iowa

Dr. Lee, Tack, Director of Financial Services
State of Iowa Department of Education

Steve, Graham, recent past President
Iowa Association of School Business Officials

Dr. Gaylord Tryon, Executive Director
School Administrators of Iowa

Brad Hudson, Finance Specialist
Iowa State Education Association

Dr. Donald Hansen, Superintendent
Boone Community School

Panel Facilitator:
Dr. Dean Meier, Administrator
Northern Trails Area Education Agency
APPENDIX D. COVER LETTERS TO SURVEY RESPONDENTS
October 2, 1997

«FIRST_NAME_MI» «LAST_NAME», «POSITION»
«SCHOOL_DISTRICT»
«ADDRESS»
«CITY», Iowa «ZIP»

Dear «FIRST_NAME_MI»:

Iowa's school financing law expires in the year 2001 and your assistance is requested to provide valuable information and direction. I am conducting a study to identify issues and concerns related to public school funding as the subject enters the legislative and political process. Without such an effort, decisions may be made on simple political grounds and attention to the wide differences in student/district needs across the state may be ignored.

The project has the support and encouragement of the organizations listed below and is under the supervision of Dr. Bill Poston of the Professional Studies staff at Iowa State University. The purpose of the study is to identify those financial areas upon which the various groups (board members, teachers, administrators, business officials) agree are functioning effectively and those in need of change. Study results are to assist the endorsing organizations in providing valid and meaningful assistance to the policy makers.

Yours is one of 50 districts I am asking to complete the enclosed survey by your superintendent, business manager/financial board secretary, a board of education member, and a fiscally knowledgeable teacher. Your participation is very important to the study. Please be assured there are no methods to personally identify any individual participants or school districts in the resulting analysis.
Here's how you can help in gathering the data from your school district. In addition to completing your own survey please do the following:

1) provide a survey packet to your superintendent.

2) consult with the superintendent to identify, and distribute a survey packet to, one of your school board members with knowledge in school finances (it often works well to send the survey a few days before a board meeting with a request to return it to you at the next (October) board meeting).

3) consult with your district education association leadership and request they identify a teacher to promptly complete and return the survey to you.

4) collect the closed envelopes (superintendent, board member, teacher) and mail them in the enclosed postage paid mailer.

A small monetary consideration will be found in your survey in appreciation for your cooperation and professional contribution as you complete the survey. Thank you for encouraging a prompt collection and return of the surveys by Friday, October 17. If you have any questions about the study or the instrument please call me.

**With your help we should be able to positively influence the future of school funding and the education of Iowa school children!**

**Cooperating Organizations**
- Iowa Department of Education - DE
- Iowa Association of School Boards - IASB
- Iowa Association of School Business Officials - IASBO
- Iowa State Education Association - ISEA
- School Administrators of Iowa - SAI

Sincerely,
Jim Scharff
Research Associate
Fiscal Planning Project
home ph: 515-423-4016
office ph: 515-421-4404
Dear Colleague:

Iowa's school financing law expires in the year 2001 and your assistance is requested to provide valuable information and direction. I am conducting a study to identify issues and concerns related to public school funding as the subject enters the legislative and political process. Without such an effort, decisions may be made on simple political grounds and attention to the wide differences in student/district needs across the state may be ignored.

The project has the support and encouragement of the organizations listed below and is under the supervision of Dr. Bill Poston of the Professional Studies staff at Iowa State University. The purpose of the study is to identify those financial areas upon which the various groups (board members, teachers, administrators, business officials) agree are functioning effectively and those in need of change. Study results are to assist the endorsing organizations in providing valid and meaningful assistance to the policy makers.

Yours is one of 50 districts I am asking to complete the enclosed survey by your superintendent, business manager/financial board secretary, a board of education member, and a fiscally knowledgeable teacher. Your participation is very important to the study. Please be assured there are no methods to personally identify any individual participants or school districts in the resulting analysis.

It is very important to complete the survey within the next few days and return in the enclosed envelope to the business manager/financial board secretary in your school district. S/He will collect and mail all surveys from your district for inclusion in the study. A small monetary consideration will be found in the return envelope in appreciation for your prompt cooperation and professional contribution as the legislative study process has begun. If you have any questions about the study or the instrument please call me.

With your help we should be able to positively influence the future of school funding and the education of Iowa School Children!

Cooperating Organizations
Iowa Department of Education - DE
Iowa Association of School Boards - IASB
Iowa Association of School Business Officials - IASBO
Iowa State Education Association - ISEA
School Administrators of Iowa - SAI

Sincerely,

Jim Scharff
Research Associate
Fiscal Planning Project
home ph: 515-423-4016
office ph: 515-421-4404
APPENDIX E. SURVEY FOLLOW-UP CARD
October 11, 1997

Dear «first»:
A few days ago you received a survey packet pertaining to our Iowa school funding system. You were asked to complete a survey as well as distribute and collect surveys from your superintendent, a board of education member, and a teacher. If you have already completed and returned the surveys, THANK YOU.

If they have not been completed and returned, will you please bring it to the top of your list of "things to do"? Your replies are important to the study, the professional recognition of school business officials, and will prevent future pleading/begging/nagging from me.

Sincerely, James R. Scharff
APPENDIX F. IDENTIFICATION OF SURVEY ITEMS AS SUPPORTING STATUS QUO, MODERATE CHANGE, OR SIGNIFICANT CHANGE
IDENTIFICATION OF SURVEY ITEMS AS SUPPORTING STATUS QUO, MODERATE CHANGE, OR SIGNIFICANT CHANGE

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<th>significant change</th>
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APPENDIX G. HUMAN SUBJECTS COMMITTEE APPROVAL
Checklist for Attachments and Time Schedule. The following are attached (please check):
12. X Letter or written statement to subject indicating clearly:
   a) the purpose of the research
   b) the use of any identifier codes (names, numbers), how they will be used, and when they will be
      removed (see item 17)
   c) an estimate of time needed for participation in the research
   d) if applicable, the location of the research activity
   e) how you will ensure confidentiality
   f) in a longitudinal study, when and how you will contact subjects later
   g) that participation is voluntary; nonparticipation will not affect evaluations of the subject

13. □ Signed consent form (if applicable)

14. □ Letter of approval for research from cooperating organizations or institutions (if applicable)

15. X Data-gathering instruments    Draft copy

16. Anticipated dates for contact with subjects: April - October 1997
First contact: April 4, 1997    Last contact: October 1997

17. If applicable: anticipated date that identifiers will be removed from completed survey instruments
and/or audio or visual tapes will be erased: N/A

18. Signature of Departmental Executive Officer

19. Decision of the University Human Subjects Review Committee:
   □ Project Approved    □ Project Not Approved    □ No Action Required

Patricia M. Keith, Committee Chairperson  4/3/97  (signature of committee chairperson)
APPENDIX H. VALIDATION DOCUMENTATION OF SURVEY INSTRUMENT BY EXPERT PANEL
RESPONSE TO PROPOSED SURVEY INSTRUMENT REGARDING PERCEPTIONS RELATED TO THE DEVELOPMENT OF SCHOOL FUNDING LEGISLATION IN IOWA

DO THE INTRODUCTORY STATEMENTS AND SURVEY STATEMENTS REFLECT THE INTENT OF THE STUDY?

Response to all topic areas:
Appropriate: □ yes □ with modifications as suggested
Representative: □ yes □ with modifications as suggested
Clear & Understandable: □ yes □ with modifications as suggested

FUNDING OF SPECIAL EDUCATION / AT RISK PROGRAMS

#8 I found confusing to read.
Perhaps: The additional special education costs of students should be

CATEGORICALLY FUNDED SERVICES AND PROGRAMS

INFRASTRUCTURE

FAIRNESS AND ADEQUACY OF FUNDING

UNFORESEEN AND EMERGENCY NEEDS

EARLY CHILDHOOD

PREDICTABILITY OF FUNDING FOR LONG TERM PLANNING
RESPONSE TO PROPOSED SURVEY INSTRUMENT REGARDING PERCEPTIONS RELATED TO THE DEVELOPMENT OF SCHOOL FUNDING LEGISLATION IN IOWA

DO THE INTRODUCTORY STATEMENTS AND SURVEY STATEMENTS REFLECT THE INTENT OF THE STUDY?  yes

Response to all topic areas:
Appropriate:  yes  ___ with modifications as suggested
Representative:  yes  ___ with modifications as suggested
Clear & Understandable:  yes  ___ with modifications as suggested

FUNDING OF SPECIAL EDUCATION / AT RISK PROGRAMS

address the issue of a "cap" on weighted.

CATEGORICALLY FUNDED SERVICES AND PROGRAMS

General Fund be more specific.  ?

INFRASTRUCTURE

how long would you go for "fair" because?

FAIRNESS AND ADEQUACY OF FUNDING

Should an unforeseen need that happens to a program been detected?

UNFORESEEN AND EMERGENCY NEEDS

EARLY CHILDHOOD

like specialized in preschool in

PREDICTABILITY OF FUNDING FOR LONG TERM PLANNING
RESPONSE TO PROPOSED SURVEY INSTRUMENT REGARDING PERCEPTIONS RELATED TO THE DEVELOPMENT OF SCHOOL FUNDING LEGISLATION IN IOWA

DO THE INTRODUCTORY STATEMENTS AND SURVEY STATEMENTS REFLECT THE INTENT OF THE STUDY?

Response to all topic areas:
Appropriate: ___ yes ___ with modifications as suggested
Representative: ___ yes ___ with modifications as suggested
Clear & Understandable: ___ yes ___ with modifications as suggested

FUNDING OF SPECIAL EDUCATION / AT RISK PROGRAMS

CATEGORICALLY FUNDED SERVICES AND PROGRAMS

INFRASTRUCTURE

FAIRNESS AND ADEQUACY OF FUNDING

UNFORESEEN AND EMERGENCY NEEDS

EARLY CHILDHOOD

PREDICTABILITY OF FUNDING FOR LONG TERM PLANNING

Jim,

You've done a good job.

Regards,

[Signature]

[Handwritten notes: "Thank you.""]
VALIDATION:
Name: Gaylord Treyv Date: 4-16-97

RESPONSE TO PROPOSED SURVEY INSTRUMENT REGARDING PERCEPTIONS RELATED TO THE DEVELOPMENT OF SCHOOL FUNDING LEGISLATION IN IOWA

DO THE INTRODUCTORY STATEMENTS AND SURVEY STATEMENTS REFLECT THE INTENT OF THE STUDY?

Response to all topic areas:
Appropriate: ___ yes ___ with modifications as suggested
Representative: ___ yes ___ with modifications as suggested
Clear & Understandable: ___ yes ___ with modifications as suggested

FUNDING OF SPECIAL EDUCATION / AT RISK PROGRAMS

CATEGORICALLY FUNDED SERVICES AND PROGRAMS

INFRASTRUCTURE

FAIRNESS AND ADEQUACY OF FUNDING

UNFORESEEN AND EMERGENCY NEEDS

EARLY CHILDHOOD

PREDICTABILITY OF FUNDING FOR LONG TERM PLANNING
VALIDATION:
Name: [Signature] Date: 4-15-97

RESPONSE TO PROPOSED SURVEY INSTRUMENT REGARDING PERCEPTIONS RELATED TO THE DEVELOPMENT OF SCHOOL FUNDING LEGISLATION IN IOWA

DO THE INTRODUCTORY STATEMENTS AND SURVEY STATEMENTS REFLECT THE INTENT OF THE STUDY?

Response to all topic areas:
- Appropriate: yes with modifications as suggested
- Representative: yes with modifications as suggested
- Clear & Understandable: yes with modifications as suggested

FUNDING OF SPECIAL EDUCATION / AT RISK PROGRAMS

CATEGORICALLY FUNDED SERVICES AND PROGRAMS

INFRASTRUCTURE

FAIRNESS AND ADEQUACY OF FUNDING

UNFORESEEN AND EMERGENCY NEEDS

EARLY CHILDHOOD

PREDICTABILITY OF FUNDING FOR LONG TERM PLANNING
RESPONSE TO PROPOSED SURVEY INSTRUMENT REGARDING PERCEPTIONS RELATED TO THE DEVELOPMENT OF SCHOOL FUNDING LEGISLATION IN IOWA

DO THE INTRODUCTORY STATEMENTS AND SURVEY STATEMENTS REFLECT THE INTENT OF THE STUDY?

Response to all topic areas:

- Appropriate: yes with modifications as suggested
- Representative: yes with modifications as suggested
- Clear & Understandable: yes with modifications as suggested

FUNDING OF SPECIAL EDUCATION / AT RISK PROGRAMS

see attached

CATEGORICALLY FUNDED SERVICES AND PROGRAMS

see attached

INFRASTRUCTURE

✓

FAIRNESS AND ADEQUACY OF FUNDING

✓✓

UNFORESEEN AND EMERGENCY NEEDS

✓✓

EARLY CHILDHOOD

✓✓

PREDICTABILITY OF FUNDING FOR LONG TERM PLANNING

✓
APPENDIX I. VALIDATION DOCUMENTATION OF STATES PUBLIC SCHOOL FUNDING LAWS
Verification Notice

This is to provide verification that the information presented by James Scharff regarding various public school funding issues in the state of Kansas as of this date is:

___ fairly represents current statutes as presented.

___ fairly represents current statutes as modified.

It is understood that the information provided is in a brief summary form and is intended for a general conceptual understanding only. Specific details must be verified by review, interpretation, and application of appropriate statutes and regulations.

Name: Dale Dennis
Title: Deputy Commissioner Division of Fiscal Services & Quality Control
Kansas Department of Education
120 Southeast 10th Avenue
Topeka, Kansas 66612-1182

[Signature]

VERIFIED BY TELEPHONE CALL FROM DALE DENNIS ON OCTOBER 22, 1997
Verification Notice

This is to provide verification that the information presented by James Scharff regarding various public school funding issues in the state of Colorado as of this date:

- [ ] fairly represents current statutes as presented.
- [x] fairly represents current statutes as modified. 10/30/97

It is understood that the information provided is in a brief summary form and is intended for a general conceptual understanding only. Specific details must be verified by review, interpretation, and application of appropriate statutes and regulations.

Byron Pendley
Public School Finance Director
Colorado Department of Education
201 East Colfax Avenue
Denver, Colorado 80203-1799
Verification Notice

This is to provide verification that the information presented by James Scharff regarding various public school funding issues in the state of Kentucky as of this date:

☐ fairly represents current statutes as presented.
☐ fairly represents current statutes as modified.

It is understood that the information provided is in a brief summary form and is intended for a general conceptual understanding only. Specific details must be verified by review, interpretation, and application of appropriate statutes and regulations.

Tom Willis
Title: Associate Commissioner
Kentucky Department of Education
Kentucky Capital Plaza Tower 500 Mero Street
Frankfurt, Kentucky 40601

Please contact me if you need additional assistance.

Signature 27 October, 1997
Verification Notice

This is to provide verification that the information presented by James Scharff regarding various public school funding issues in the state of Louisiana as of this date:

☑ fairly represents current statutes as presented.

☐ fairly represents current statutes as modified.

It is understood that the information provided is in a brief summary form and is intended for a general conceptual understanding only. Specific details must be verified by review, interpretation, and application of appropriate statutes and regulations.

Marilyn Langley
Deputy Superintendent Office of Management & Finance
Louisiana Department of Education
PO Box 94064 626 North Fourth
Baton Rouge, Louisiana 70804-9064

signature
Oct. 29, 1997
APPENDIX J. ENDORSEMENT FROM SUPPORTING ORGANIZATIONS
Verification Notice

This is to provide verification that the information presented by James Scharff regarding various public school funding issues in the state of Kansas as of this date is:

☑ fairly represents current statutes as presented.

☐ fairly represents current statutes as modified.

It is understood that the information provided is in a brief summary form and is intended for a general conceptual understanding only. Specific details must be verified by review, interpretation, and application of appropriate statutes and regulations.

Name: Dale Dennis
Title: Deputy Commissioner Division of Fiscal Services & Quality Control
Kansas Department of Education
120 Southeast 10th Avenue
Topeka, Kansas 66612-1182

VERIFIED BY TELEPHONE CALL FROM DALE DENNIS ON OCTOBER 22, 1997
AUTHORIZATION OF SUPPORT FOR STUDY

Authorization is hereby granted for James Scharff to indicate that the IASB endorses or supports the Iowa public school funding issues survey and related study (not necessarily the results). Said statements of support may be used on introductory communications and explanatory materials related to gathering of data for the study.

IASB
Authorized Representative: [Signature] Date: 9.17.97

AUTHORIZATION OF SUPPORT FOR STUDY

Authorization is hereby granted for James Scharff to indicate that the School Administrators of Iowa supports the Iowa public school funding issues survey and related study (not necessarily the results). Said statements of support may be used on introductory communications and explanatory materials related to gathering of data for the study.

School Administrators of Iowa
Authorized Representative: [Signature] Date: 8.14.97
AUTHORIZATION OF SUPPORT FOR STUDY

Authorization is hereby granted for James Scharff to indicate that the Department of Education endorses or supports the Iowa public school funding issues survey and related study (not necessarily the results). Said statements of support may be used on introductory communications and explanatory materials related to gathering of data for the study.

Department of Education

Authorized Representative: [Signature] Date: 9/18/97

AUTHORIZATION OF SUPPORT FOR STUDY

Authorization is hereby granted for James Scharff to indicate that the ISEA endorses or supports the Iowa public school funding issues survey and related study (not necessarily the results). Said statements of support may be used on introductory communications and explanatory materials related to gathering of data for the study.

ISEA

Authorized Representative: [Signature] Date: 8/14/97

AUTHORIZATION OF SUPPORT FOR STUDY

Authorization is hereby granted for James Scharff to indicate that the Iowa Association of School Business Officials endorses or supports the Iowa public school funding issues survey and related study (not necessarily the results). Said statements of support may be used on introductory communications and explanatory materials related to gathering of data for the study.

Iowa Association of School Business Officials

Authorized Representative: [Signature] Date: August 26, 1997

Norman W. Pogemiller
Executive Director


Iowa Department of Education (1996a). *Iowa educational directory.* Available from Iowa Department of General Services, Iowa State Printing Division, Grimes State Office Building, East 14th & Grand, Des Moines, IA 50319.


ACKNOWLEDGMENTS

I wish to express my sincere appreciation to Dr. Bill Poston for his help, direction, support, and encouragement in the development and completion of this study. His prompt and direct responses to my concerns were more than helpful in maintaining my focus and resolve to expeditiously proceed through the research and dissertation process. Special thanks are also due to Dr. Richard Manatt for the encouragement and enthusiasm as well as the technical expertise and practical advice and direction on a personal and professional level. Dr. Mack Shelley served a most valued and appreciated service when asked to participate as the statistics counsel following the untimely withdrawal of Dr. Netusil. Thanks also to Norm Boyles for continuing to serve on the committee following his retirement and to Dr. Wm. Rudolph for helping this former fellow math major realize this personal goal.

Appreciation and thanks are due to my employer, the Mason City Schools, for allowing the flexibility in schedule and use of vacation time to attend classes and meet the other responsibilities of completing the program. The personal encouragement and support of Dr. David Darnell, Mason City school superintendent, served as a primary motivation to not only embark upon, but complete this journey. The support, humor, and interest of other administrative peers and teaching staff was invaluable in maintaining a sense of balance and perspective; thanks to you all.

Most importantly, I cannot thank my wife, Jean, and daughters, Jen and Jamie, enough not only for your support but also for picking up the family responsibilities and tolerating my continual focus on completing the degree. My dedication to completing the program was to honor the memories of my dad and son, Jonathon.