This is to certify that the
dissertation entitled

THE IMPACT OF RISING EMPLOYEE BENEFIT COSTS ON MICHIGAN SCHOOL DISTRICTS

presented by

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has been accepted towards fulfillment
of the requirements for the

DOCTOR OF PHILOSOPHY degree in EDUCATIONAL ADMINISTRATION

Major Professor's Signature

MARCH 19, 2007

Date

THE IMPACT OF RISING EMPLOYEE BENEFIT COSTS ON MICHIGAN SCHOOL DISTRICTS

By

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A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Educational Administration

2007

ABSTRACT

THE IMPACT OF RISING EMPLOYEE BENEFIT COSTS AND ON MICHIGAN SCHOOL DISTRICTS

By

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In 1994 a ballot referendum, known as Proposal A, changed the funding mechanism for Michigan schools. Proposal A changed the funding mechanism from a property tax-based system to a sales tax-based system. Districts are now given a set per pupil funding allowance each year. This allowance, called the foundation grant, is set and changed by the state.

Many Michigan districts have struggled financially under the new system. A great deal of research has been done around the growth and sustainability of the new funding mechanism. The purpose of this dissertation is to document the current financial situation and attempt to ascertain whether rising employee costs have contributed to the constraint. Unlike previous research focused largely on the change in revenue, this study focuses on the change in employee benefit costs, specifically health insurance and retirement, since 1994.

Utilizing Michigan Department of Education Form B data, employee benefit costs, including health care and retirement expenditures, were documented from 1994 to 2004 for 551 Michigan districts. Calculations were then performed to determine how

these costs have changed over the nine year period as compared to the change in revenue and total operating expenditures for the districts.

Once the change in employee benefit costs had been identified, a survey was conducted to determine what steps districts have taken to restrain the growth in these expenditures. A survey was sent to all Michigan School Business Officials. The survey asked them to identify their district's health insurance programs and the steps they have taken to slow the growth in, specifically, health care costs. This data was then compared to the Michigan Department of Education employee cost data in order to determine if those who had pursued cost reduction strategies in health care were successful in restraining growth in overall employee benefit costs.

The objective was to identify additional sources of the current financial constraint faced by Michigan schools and determine if employee benefit cost reduction strategies can successfully improve the financial situation.

Dedication

This dissertation is dedicated to my wife Nicole and daughter Sara. They both sacrificed a great deal while I worked on this important study.

ACKNOWLEDGEMENTS

The following people were instrumental. Special thanks to Tom White, President of Michigan School Business Officials (MSBO). Tom While helped survey the MSBO membership and provided insight and support on how to obtain the best representative sample from his membership. Thank you to Dr. David Arsen for his constant guidance and support as well as his many edits of this study. Yongmei Ni, MSU Education Policy Center, pulled together and provided the most recent Form B data that was used in this study. I would also like to thank the remainder of my dissertation committee: Dr. Douglas Roberts, Dr. Phil Cusick, and Dr. Bets Ann Smith. Their time, feedback, and expertise have been incredibly valuable throughout this process. Also, thank you to Cristin Hodgens for editing the dissertation proposal and final copy of this work.

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KEY TO SYMBOLS OR ABBREVIATIONS

The following abbreviations are used throughout this study:

CDHP - Consumer Directed Healthcare Plans

COE – Current Operating Expenditures (of a school district)

DB – Defined Benefit

DC – Defined Contribution

EMO's – Executive Management Organizations

GDP – Gross Domestic Product

Growth Rate - Compound Annual Growth Rate

GSP - Gross State Product

HMO – Health Maintenance Organization

ISD – Intermediate School District

MAASP – Michigan Association of Assistant School Principals

MDE - Michigan Department of Education

MEA - Michigan Education Association

MESSA – Michigan Education Special Services Administration

MFT – Michigan Federation of Teachers

MSBO - Michigan School Business Officials

MSPERS - Michigan Public Schools Employees Retirement System

PPO – Preferred Provider Options

SAF – School Aid Fund

CHAPTER 1: INTRODUCTION

Over the past five years, Michigan school districts have become financially distressed, resulting in lengthy contract negotiations for some districts and teacher strikes for others. The start of the 2006 school year underscored the financial challenges faced by districts. Saline, Willow Run, Lincoln and Howell schools all failed to negotiate a contract due to disagreement over salaries and health care benefits. Willow Run has been placed on the critical list by the Michigan Education Association for the past 2 years because they have not had a contract since 2004. Detroit Public School teachers went on a 16 day strike and when they finally returned to work, it was without a contract.

For most districts, failure to reach an agreed upon contract was largely due to district attempts to limit salary increases and push some of the expense from rapidly rising health care costs onto teachers, administrators, and support staff. The recent contract negotiation challenges are due to the financial strain districts are feeling. This strain is largely due to slow revenue growth and a rapid increase in employee retirement and health care costs.

Since the passage of Proposal A, revenue growth has been slower than what it would have been under the previous funding mechanism. In 1994, Proposal A passed in a special state referendum that changed the source of funds for Michigan schools. Proposal A essentially replaced local property tax revenue as the source of funds with a 2 percentage point increase in state sales taxes, and earmarked a portion of state income tax

for schools. Schools were subsequently provided with a minimum per pupil foundation grant from the state. The minimum foundation grant was designed to decrease the inequities that existed between districts by providing a minimum per pupil standard for all districts. While the foundation grant did provide a minimum standard for all districts, the revenues available to Michigan schools have declined in real terms. During the early years of the new funding mechanism, districts received an annual increase in their foundation grant. The increases largely kept pace with or exceeded the rate of inflation from 1995 to 2001. Since 2001, however, the real dollar value of the per pupil foundation grant has declined for every district.

Since the passage of Proposal A Michigan schools also have faced a rapid rise in employee compensation costs. Rising employee costs have primarily been driven by substantial increases in both health care and retirement expenses, costs over which districts have little to no control. These increasing costs, in concert with a decline in real revenues, have put a financial strain on many school districts. Given that Proposal A's impact on districts' revenues has been well established, this research study focuses on the net effect of rising employee benefit costs on Michigan school districts' current operating expenditures in order to determine the role these costs have played in districts' current financial predicaments. In addition, the study draws on information from Michigan school districts to analyze their strategies to restrain rising benefit costs, and also to examine the budgetary impacts of those adjustment strategies.

The remainder of this study is organized as follows. Chapter 2 reviews the pertinent literature on Michigan school finance. It discusses changes in school funding since the passage of Proposal A, as well as the legislative policy response to the current

financial situation faced by Michigan schools. Chapter 3 describes the study's research design and methods, and the data analyzed. Chapter 4 presents the study's empirical results while Chapter 5 offers a discussion of those results. Many of the cost reduction strategies documented here have only been implemented by districts within the past 2 to 3 years. The study concludes with recommendations for future research that will be required in the next few years to determine the financial impact of these strategies.

CHAPTER 2: LITERATURE REVIEW

In order to understand the financial situation facing Michigan school districts, it is first necessary to outline how the funding mechanism for Michigan schools changed with the passage of Proposal A. Next, I will detail how these changes have impacted district revenue growth and then review the literature related to rising employee costs.

History of Michigan School Finance: What Changed with Proposal A

In March 1994, the successful passage of Proposal A created a new era of funding for public education in the state of Michigan. Proposal A was passed in a special state referendum created by an agreement in the Michigan Legislature in December 1993. The key component of the proposal replaced local property tax revenue with sales and income tax as the primary source of funding for Michigan's public schools. As a result of Proposal A, Michigan's property taxes were reduced by about one third. To offset the loss of revenue from the property tax reduction, the state sales tax was increased by 50 percent from four cents to six cents on the dollar (Kleine, 1997).

Proposal A also shifted primary control over the level of school funding in Michigan from local communities to the state. Prior to Proposal A, more than two thirds of Michigan's education revenues were raised locally. School districts were able to control the property tax rate and funding level for their local schools through local millage elections. Proposal A shifted the balance of power and decisions regarding

school funding to the state legislature. Today most operating revenues are raised and distributed to Michigan school districts by the state. Districts can no longer set their own property tax rates for operating purposes and have limited ability to raise additional revenues in support of their children's education. Local communities have therefore effectively lost control over the revenues available for operating their schools.

Under Proposal A, proceeds from the increase in the sales tax (and other revenues earmarked for education) are deposited into the state School Aid Fund (SAF). Funds are then distributed from the SAF to districts on a per-pupil basis. Michigan school districts receive a per-pupil foundation grant (established with passage of Proposal A) from the SAF. Since the inception of Proposal A, the state has also supplemented the revenues from the SAF with revenue from the General Fund. The General Fund pays for all of the other programs and services of the state. Each year since 1995, the state has been able to allocate fewer dollars for schools out of the General Fund because of the instability of its revenue sources. This has placed a greater financial strain on the SAF.

To reduce funding inequities between districts, Proposal A established a minimum "foundation grant" for all Michigan school districts. The minimum foundation grant was $4200 in 1994-95, and it was to increase in subsequent years. With the passage of Proposal A, those districts below the minimum foundation grant in 1993 enjoyed the most significant increase in their per-pupil funding. Proposal A narrowed, but did not eliminate, inequalities in per pupil revenues across Michigan school districts.

The new funding mechanism for Michigan schools was successful in reducing inter-district inequities in per pupil revenues (Arsen and Plank, 2003; Cullen and Loeb, 2004; and Prince, 1997). However, some observers remained concerned about the new

system's capacity to provide adequate and stable future revenue growth for Michigan schools (Arsen and Plank, 2003; Courant and Loeb, 1997).

Proposal A's Impact on Revenue Growth

Educators and economists were concerned about revenue growth under the new system. First, the revenues available to school districts under Proposal A were expected to experience slower long term growth than what would have occurred under the previous funding mechanism since growth of the new system's primary tax bases--sales and income—was slower in growth than the value of taxable property under the former system. Second, the sales and income tax revenues earmarked for education under Proposal A were expected to be more vulnerable to cyclical fluctuations in the economy.

A study by Kleine in 1997 indicated that under the previous funding system, the revenues available to Michigan schools grew at a much faster pace than what schools would experience with the passage of Proposal A. During the period from 1972 to 1992, property tax assessments grew at an average annual rate of 7.1 percent while Proposal A's earmarked revenues would have increased during that period at an annual rate of only 6.6 percent (Kleine, 1997).

Arsen and Plank (2003) document the actual impact of Proposal A on funds available to Michigan schools. They show that while the real per-pupil revenue increased by thirteen percent between 1994 and 2002, the annual real revenue growth would have been double that figure during this same time period, under the previous funding system. Further, from 1980 to 1994, statewide real per-pupil revenues grew at an annual rate of approximately 3.3 percent, compared to an annual revenue growth rate of 1.5 percent

since the passage of Proposal A. This is the slowest pace of revenue growth over any period (Arsen & Plank, 2003).

The slower growth in revenues available to Michigan schools under the new funding mechanism can also be illustrated by the change in the foundation grant for school districts, as compared to the estimated changes that would have occurred under the prior funding system. In the early years, 1994-1995 to 1997-1998, revenues available to districts increased three percent annually. Under the property tax based system district revenues would have increased by seven percent annually (Kleine, 1997).

The net effect of the new funding system, according to a 2001 report by the Michigan Department of Treasury, is that Michigan schools were funded with $2 billion fewer dollars under the new funding system created by Proposal A than would have been provided by the old property-tax based system (Michigan Department of Treasury, 2001).

This secular slowdown in revenue growth was exacerbated by the economy's cyclical downturn in 2000-2002. Given that the new funding mechanism is primarily comprised of sales and income taxes, it is more vulnerable to economic fluctuations. By analyzing the last recession faced by the state economy, from 1989 to 1992, Kleine's study also examined what would happen to the source of funds available to Michigan schools if there were a recession. Between 1989 and 1992, property taxes increased at a rate of eight percent annually while the replacement revenues created by Proposal A grew at a rate of only 3.6 percent annually (Kleine, 1997). This large gap led economists, educational policy makers, and opponents of Proposal A to predict that school funding would not fare well under the new system in future economic downturns.

Recently the state and national economy have experienced a slowdown in economic growth which has affected the revenues available to the SAF, and subsequently the foundation grant provided to Michigan schools. Between 1998 and 2000, gross domestic product (GDP) grew an average of 4.1 percent per year. The economy saw a significant change in this growth between 2001 and 2003, slowing to an average of 1.7 percent (Bureau of Economic Analysis). Michigan also experienced a decline in its gross state product (GSP) during this same time frame.

From 1998 to 2000, the GSP for Michigan grew at an average rate of 4.10 percent, compared to a 2.17 percent growth from 2001 to 2003, including negative .41 percent growth in 2001 (Bureau of Economic Analysis). The slower GSP growth resulted in an increase in the jobless rate. In 2000 the unemployment rate was 3.7 percent; by 2003 unemployment had climbed 89 percent to 7.1 percent (Bureau of Labor Statistics). Since December 2004, the unemployment rate in the state has declined to 6.4 percent, but it is still 25 percent above the national average of 5.1 percent. As the unemployment rate rose and the GSP fell, the revenues available from the sales tax fell, causing a significant shortfall to the SAF.

During the first five schools years of the new funding system, 1994 – 1995 through 1999 – 2000, the SAF increased an average of 6.3 percent each year. The subsequent economic decline produced slower growth in the SAF. Between the 2000-01 school year and the 2003-04 school year, the SAF increased an average of only 4.1 percent. From the beginning, the Legislature found that the revenues in the SAF were insufficient to meet the state's commitments to Michigan schools. In order to offset this shortfall in SAF revenues, the state transferred more than $5 billion from the General

Fund to the SAF from 1995-2003, or approximately $560 million every year since the enactment of Proposal A (Arsen & Plank, 2003). Of the $5 billion amount, approximately 40 percent, or $2 billion, was transferred between 2001 and 2003, at the same time the economic slow down occurred (Arsen & Plank, 2003). These transfers from the General Fund account for more than 40 percent of the total increases in actual per-pupil education revenues from 1994 to 2003.

Given that the growth of tax revenues comprising the SAF has slowed, the General Fund has continued to struggle. Between 1995 and 1999, the GSP had a growth rate of 5.41 percent (as expressed by the compound annual growth rate). From 2000 to 2004, the GSP growth slowed to 1.99 percent. The slow growth in the GSP has adversely affected the state's General Fund and contributed to its decline. The General Fund now faces a structural imbalance due to the state's stagnant economic growth and cuts in General Fund taxes (Citizens Research Council, 2006). Consequently, General Fund revenues can no longer be used to buttress the SAF.

The falloff in the SAF caused the state to prorate the foundation grant for two consecutive school years. In January 2003, the state prorated the foundation grant for the 2002-03 school year from $6700 per pupil to $6644; however, this was still a 5.56 percent increase over the 2001-2002 grant of $6300. It was not until the 2003-2004 school year that inflation began to outpace the growth in the minimum foundation allowance. The minimum foundation allowance again declined for the 2003-04 school year by .27 percent. Between 2003 and 2004, the consumer price index increased by 2.99 percent; this was 2.72 percentage points higher than the .27 percent increase in the foundation grant. During the 2004-05 school year, the foundation grant allowance was

flat at $6700 while inflation grew 3.16 percent.[1] For the 2005-06 school year, however, the minimum foundation grant actually increased by 2.61 percent to $6875. Although the inflation rate data has not yet been captured or calculated for the entire 2005-06 school year, there has been an increase of 3.96 percent in the first four months (July – October) of the school year as compared to the previous year. If inflation remains unchanged for the remainder of the school year, the 2.61 percent increase will be completely eroded by the 3.96 percent increase in inflation. Further, if we examine the last three school years, from 2003 – 2006, the foundation grant has increased by only 2.88 percent while the estimated cumulative increase in the consumer price index will be about 10.11 percent. So while the minimum grant did increase during the 2005-06 school year, the real value of every district's foundation allowance has declined over the last three years.

While revenue growth under Proposal A has slowed, the new system did narrow the funding inequities between low and high revenue districts. As a result, the impact of Proposal A varies between districts. A district's pre-1994 spending levels were a significant determinant of how well the district fared under Proposal A. Districts below the minimum foundation grant level experienced rapid revenue growth under Proposal A between 1994 and 2002. The revenue growth for districts that were high spending in and before 1994, on the other hand, has been very slow. For the lowest quintile districts, the average increase in the foundation grant was approximately $3,000 between 1994 and 2002. The highest revenue quintile districts in 1994, however, saw much lower revenue

[1] Note that the inflation data included for the 2003 – 2004 and 2004-2005 school years corresponds to the Consumer Price Index in July 2004 (189.4) as compared to July 2004 and 2005 (195.4), so as to relate the % increase in inflation to the corresponding school year.

increases in subsequent years; indeed, they failed to keep pace with inflation (Arsen & Plank, 2003).

A district's demographic profile also influenced the impact of Proposal A. Many rural school districts have fared very well under the new system. Since rural districts tended to be low-spending in 1994, most experienced large increases in their per-pupil funding under Proposal A. However, districts that have seen declining enrollment since 1994 have suffered under the new system. A district's total foundation revenues are comprised of the total number of pupils multiplied by the per-pupil foundation grant provided by the state. While rural school districts received an increase in their per pupil foundation allowance, many of the rural schools also experienced a dramatic decline in their enrollment which offset the increase in their grant. Inner city and low-income school districts also saw a significant decrease in enrollment as many students moved to suburban districts and charter schools. Proposal A places a special budgetary hardship on declining enrollment districts, since revenues from the state fall faster than operating costs. (Arsen & Plank, 2003).

Despite its mixed impact on district revenues in the early years, Proposal A has had an overall pejorative effect on the revenues available to Michigan school districts in recent years. Revenues available to districts under the new system have grown more slowly than they would have under the property tax based system. Additionally, the real value of Michigan school districts' foundation allowances has declined since 2001. Districts therefore find themselves in a financial quandary and are consequently looking for ways to offset the declining revenues.

Under Proposal A, local districts have limited ability to raise incremental funds that could offset the declining revenues. The only remedy Proposal A offers a district in need of additional operating revenue is a regional enhancement millage. The enhancement millage allows intermediate school districts (ISDs) to ask voters to approve up to three mills, which increase their property taxes. Under the enhancement mill provision, the millage must be approved at the county level and its proceeds then are distributed on an equal per pupil basis across all school districts in the intermediate school. The enhancement millage is, therefore, an example of tax-based sharing.

The adoption of Proposal A left Michigan school districts minimal control over the revenues they receive. While state foundation aid has declined in real terms, districts have faced double-digit increases in health care and retirement costs. This squeeze is creating a financial crisis for many Michigan school districts. The strain appears to be greatest in those districts that are also experiencing a decline in their enrollment. Not only do districts have minimal control over their available revenues, but they also have limited to no control over their employee costs.

Rising Employee Costs

Health Care Costs

Health insurance costs have been rising nationally, and this development has had a significant impact on Michigan school districts. For the past several years, the double digit growth in the cost of health insurance, in particular, combined with districts' limited control over these costs, has placed a financial strain on many districts. So while the rising cost of health care is a national phenomenon, school districts, by comparison to

many private sector employers, have been less successful in shifting rising health care costs to their employees.

National expenditures on health care have been on the rise for more than 60 years. Today health care spending accounts for more than 14.1 percent of the gross domestic product (GDP), compared to 3.5 percent of GDP in 1929 (Goodeeris, 2004). According to John Goddeeris, real per capita spending on health care in the U.S. increased by 913 percent between 1950 and 2001, rising from $476 in 1950 to $4,819 in 2001. This represents a rate of increase in healthcare costs three percentage points higher than the general price level every year (excluding five years). During this same time frame, real GDP per capita only grew by 190 percent (Goodeeris, 2004).

This increase in spending can be largely attributed to scientific advances in medicine and surgery. As treatment options and surgical procedures became more complex, the associated costs and demand for insurance increased. The first private health insurance designed to cover these health care costs became available in 1940. At that time, only nine percent of the American population had health care insurance.

After World War II the number of Americans with health insurance increased substantially. By 1950, over half of the population had health insurance, and by 1975, more than 82 percent of the population was insured. The rapid spread of health care insurance was driven by two phenomena. First, the advances in medicine increased the financial risk to those without insurance. Second, health insurance costs are typically lower for a group of people than they are for an individual. One possible way of grouping individuals was through their place of employment. During World War II, employers utilized health insurance to recruit and retain employees, since fringe benefits

such as health insurance were exempt from the wage-price controls of the time. This method continued after the war, cementing the link between health insurance and an individual's job since this insurance was not included in an employee's taxable income (Goodeeris, 2004). The rise of unionization furthered this linkage, as unions began to include health insurance in their negotiations. By 2002, 88 percent of those with private insurance received their insurance through their job or the job of a member of their immediate family (Mills and Shailesh, 2002). Given that health insurance is typically part of an employee's benefit package, employers have been forced to devise strategies to offset the impact of rising costs.

A study by Towers and Perrin (2004), a human resource consulting firm, states that employers have experienced five consecutive years (1999 – 2003) of double digit percentage point growth in insurance costs. Their study predicted insurance costs to rise another twelve percent in 2005, costing employers an additional $742 per employee. While many companies are asking employees to pay more for their health care, employers are still bearing the lion's share of the costs. Towers and Perrin's survey found that employees will contribute only eighteen percent of the total cost for employee-only coverage and 22 percent for family coverage, with the rest of the cost being covered by the employer. This means that for the additional $742 per employee, the increased cost to the employee is only $134 while the increase to the employer is $608.

Health insurance premiums have been on the rise for many years. Between 1996 and 2000, premiums for single coverage have increased by 33.3 percent, while the cost of family coverage has increased by 36.7 percent (Agency for Healthcare Research and Quality, 2002). Michigan has experienced a similar increase in health insurance

expenditures and premiums. Real per capita spending on health insurance in Michigan increased at the same pace as the national average, 2.2 percent per year from 1991-1998 (Ballard, 2003). In recent years, the state also has experienced double digit growth in insurance premiums, increasing the cost of providing health insurance to school district employees.

School district employees' health insurance is typically covered by either the Michigan Education Special Services Administration (MESSA), which serves as a second party provider for Blue Cross and Blue Shield, or by other first party insurers such as Blue Cross and Blue Shield or various Health Maintenance Organizations (HMOs). MESSA is a non-profit membership organization that was established by the Michigan Education Association (MEA) to provide its members with health care and related employee benefits. Two-thirds of Michigan school districts use MESSA to insure their employees. The remaining third are insured by a variety of other providers, including HMO's and Blue Cross and Blue Shield PPO's. The determination as to which districts use MESSA and those that use other providers is largely predicated by the union to which the employees in that district belong. Districts whose employees belong to the MEA use MESSA, while districts that belong to the Michigan Federation of Teachers (MFT) typically use non-MESSA providers. The MEA prefers MESSA because it offers substantially better benefits than other providers for their members.

The contribution rates for the districts, regardless of their provider, are set by the insurance company and are not negotiated. MESSA's rates are set district by district and are based on regional cost of living differences. This is also true for the first party insurers utilized by MFT districts. A portion of every individual district's revenue is

utilized to cover these contribution rates. Recently the contribution rates have increased rapidly.

The average annual increase in a district MESSA contribution rates between the 1996-97 and 2001-02 school years was 29 percent. Between the 2001-02 and 2003-04 school years, the contribution rate increased an average of 34 percent. Contribution rates increased 22 percent in 2004-05 alone. In the past, most districts have typically shouldered 100 percent of health insurance costs for district employees. In recent years, however, there has been considerable pressure at both the local and state levels for this to change.

Nationally, employers have utilized a number of strategies to offset these rising health care costs. During the 1980's and early 1990's there was a shift toward managed care organizations. Health maintenance organizations (HMO) took a more active role in an individual's care and were better able to manage costs as a result. During the late 1990's, there was again a shift in insurance options as premiums stabilized and the economy grew at a rapid pace. Companies moved away from managed care options to preferred provider options (PPO's). With a PPO, participants gained a choice among providers who were part of a network. This network offers discounts as long as the insured went to a PPO network caregiver. A PPO provides both cost control and choice. Large employers have also moved to self-insurance policies in order to better control costs.

In recent years, as insurance premiums began to rise again, employers have maneuvered to shift part of the burden to employees. A 2001 survey conducted by the *Journal of Health Affairs* shows that 408 of the Fortune 500 no longer pay 100 percent of

their employees' premiums. Half of these firms have stopped paying 100 percent of the premiums since 1994. Additionally, there has been a 13 percent decline in the number of firms that pay at least 90 percent of the premium (Employee Benefit News, 2001). The 2002 seventh annual survey by Watson Wyatt Worldwide, a research firm, found that 71 percent of employers plan to pass some of the health insurance increases on to employees. Fifty-one percent of the employers indicate that they will increase co-payments to help offset rising costs. (Watson Wyatt, 2002)

Employees are being asked to pay higher premiums along with higher out of pocket deductibles for services and prescriptions. Since early 2001, many employers have begun to move toward a defined contribution (DC) model, allowing employees to design and select the health care plans that best meet employees' needs. Employers have also adopted consumer directed healthcare plans (CDHP) in order to reduce costs. CDHP's are plans with very high deductibles coupled with high health reimbursement accounts. These new plans, higher co-pays, and deductibles are all designed to help employers offset the impact of rising insurance premiums and shift some of the burden to employees.

Michigan school districts have utilized some of these same strategies to offset rising health care costs. In general, however, school districts appear to be more constrained in their ability to shift the burden of rising costs to their employees, since these benefits are fiercely protected by teachers unions. Unlike workers in the U.S. economy as a whole, Michigan school employees are highly unionized. Health care costs are part of the contract that is negotiated by teachers' bargaining representatives and administrators. Today these costs are typically fully funded by the school districts.

School employee unions have worked diligently to preserve their health care coverage with minimal increases in their members' out of pocket expenditures. For the most part, at least until recently, districts have had to shoulder the burden of rising health insurance premiums. One of this study's objectives is to determine whether and to what extent there has been a shift in the distribution of the health cost burden between districts and their employees in recent years in response to budgetary tightness.

While many cost containment strategies have been adopted by private sector firms nationwide, school districts have found it difficult to shift the burden of rising insurance premiums to their employees. Teacher and administrative unions (both the MEA and less strenuously the MFT) have demonstrated a strong resolve to maintain their current level of health care. The Mackinac Center has forcefully argued that the MEA has an unstated policy that once a district has purchased insurance from MESSA they are no longer able to purchase insurance from any other provider (Kersey, 2004). Kersey asserts that the MESSA monopoly and power of the MEA has made it difficult for districts to control health insurance costs.

For example, in 2004, four Grand Rapids school districts unsuccessfully proposed that teachers contribute a modest amount for their health insurance coverage. While this is standard practice for most industries, this cost sharing method has been strongly resisted by the MEA. When the proposal was made, MEA officials began to prepare for a strike in protest (Kersey, 2004).

The resolve of teachers to preserve health insurance coverage was also demonstrated in September 2005 when teachers in Utica Public Schools, the state's second largest school district, rejected their contract because it included a provision that

would pass on some of the health insurance costs to employees. The Utica district had experienced a significant increase in health care costs over the past few years and therefore has been working to contain those costs to mitigate any budget shortages. The contract proposed a change in Utica teachers' health care plan under which the district would continue to pay 100 percent of the PPO premiums. However, teachers who elected MESSA's Super Care (a traditional Blue Cross plan) would have to pay the difference in cost between the PPO and the Super Care plan. This new plan would have cost district employees $93 per month for family coverage. The proposal and contract were summarily rejected by the teachers (Wowk, 2004).

While districts claim to be constrained in their ability to share the cost of rising premiums, they have employed other strategies utilized by employers nationally. Districts have negotiated an increase in deductibles and co-pays to help offset some of costs. Further, some districts have set insurance caps whereby they will cap the employee's insurance to a specified and pre-negotiated maximum. The employee is responsible for any subsequent costs above the maximum cap. Other districts have reduced the number of services provided as part of their insurance plan (e.g., mental health, vision, dental, etc.), changed carriers (e.g., choosing Tri-Med, a low cost MESSA provider or moved to an HMO or PPO), and begun to self-fund their insurance program. Each of these strategies is designed to control spiraling health insurance costs. However, anecdotal evidence suggests that districts have been unable to successfully deploy the primary mechanism for controlling costs: sharing the premiums with employees. There is currently no systemic information that indicates to what extent school districts in the state of Michigan have been successful in adopting these cost containment strategies.

Also, there has been no research into how effective the adopted strategies have been in controlling school district expenditures. Analysis of districts' successful adoption and maintenance of containment strategies will be addressed in this study.

Retirement Costs

For most of the postwar period, most U.S. workers in the private and public sectors were offered defined benefit pension plans as part of their compensation packages. The defined benefit (DB) plan was designed to provide an annuity until death to a retired worker who is vested in the company's pension program. To be vested the employee must have met the company's pre-determined age and years of service requirements. The benefit paid to the employee is typically a function of the employee's average salary, age, and years of service. Traditionally a DB plan in the private sector was funded primarily by the employer. Over the last 20 years there has been a shift away from defined benefit plans to defined contribution (DC) plans.

A defined contribution plan is one where the employer or employee contributes a specified amount of money to a retirement plan. The most common defined contribution plan is the 401K. The employer typically sets up an individual account for each employee and provides matching funds or some other form of contribution to the plan. Employees are able to select investment options from a menu that is established by the employer. Retirement benefits provided to the employee are therefore determined by total contributions and investment earnings. The shift from DB to DC plans has primarily occurred in the private sector. In the public sector, a DC plan is usually offered

as a supplement to the DB plan, which serves as the primary form of retirement benefit in the public sector.

Under a DB plan for a public sector employee, the state is responsible for investing all funds and must ensure that it is able to meet the pension obligations. A DC plan minimizes the state's responsibility to its contributions and certain administrative functions, and costs far less to administer than a DB plan. The tax implications for both types of plans are accordingly very different. Given the state's financial responsibility under a DB plan, it is possible that if the system is insufficiently funded, a tax increase might be required in order to meet the state's pension obligations. The DB plan guarantees an employee a certain lifetime payment, which is a long term obligation of the state. This consequential state tax liability was the primary reason for a 1997 change to the State of Michigan's pension program.

In 1997, the State of Michigan discontinued its DB plan for new state employees. Thereafter, new employees were enrolled in a 401K plan that includes a mandatory state contribution supplementing a defined contribution shouldered by the individual. Those employees who were already enrolled in the DB plan were given the option to either continue with the DB plan or roll their vested pension to a defined contribution, or 401K plan (Papke, 2003).

Despite the trend for state employees, Michigan's public school system still utilizes a DB plan for new and veteran employees, though a supplemental 403B option is also available. These 403 B accounts are analogous to 401K accounts except they are primarily available to public employees. The DB plan and supplemental 403B are entirely independent of each other. The Michigan Public Schools Employees Retirement

System (MPSERS) is the largest retirement system in the state. MPSERS is a statewide, cost-sharing multiple-employer public employee retirement system governed by the State of Michigan. State law mandates that school districts contribute to MPSERS which covers all district employees (teachers, administrators and other support staff). For most employees, the pension fund is their only retirement account, though some employees do elect to augment their pension with a 403B account. In 2001, MSPERS had 319,000 active members and 131,000 retirees and beneficiaries, with over $37 billion in assets (Papke, 2003).

Prior to the passage of Proposal A in 1994, funding for MPSERS came out of general state appropriations. Under Proposal A, the state's pension payments that prevailed in 1994 were rolled into each district's foundation grant from the state. Districts must now pay for their pension programs out of their General Fund budget which is provided via the annual per pupil foundation grant. The state no longer makes the payments to MPSERS directly. All districts are "required to contribute the full actuarial funding contribution amount to fund pension benefits, plus an additional amount to fund retiree health care benefits on a cash disbursement basis" (Papke, 2003). This rate is set by MPSERS, and varies from year to year.

A district's contribution rate is essentially a percent of the total payroll salary. Districts are responsible for the cost of all retirement benefits, including retiree health benefits. As of 2001, about 38 percent of the MPSERS pension costs were set aside for health benefits alone (Papke, 2003). Consequently, school districts bear the costs of health care premium increases not only for their current employees but also indirectly for the retirees through the MPSERS contribution. Given that the MPSERS contribution rate

is partially based on healthcare requirements, the rapid rise in healthcare costs also have necessitated the increase in the contribution rate so as to adequately fund MPSERS. Resultantly, state officials have roughly doubled the health benefit contribution rate over the last decade: it was 3.33 percent in 1995 and 6.55 percent as of 2005.

During the first five years under Proposal A, from 1995 to 2000, the contribution rate actually decreased from 14.84 to 11.66; this decline was largely due to the fact that the state froze the increase in the foundation grant *in lieu* of providing for the pension benefit contribution rate for the districts as a result of the Durant settlement. Beginning in 2001, the contribution rate began a steady increase from 12.16 to 14.87 by 2005. During the 2000-01 school year, the combined pension benefit rate was 12.16. That rate increased by 6.7 percent from 12.16 to 12.99 for the 2003-2004 school year, and increased again by 14.47 percent from 12.99 to 14.87 for the 2005 to 2006 school year. The Citizens Research Council of Michigan projected the retirement contribution rate for the fiscal 2006 school year would increase from 14.87 to 16.8 percent, an expected increase of 10 percent. The actual increase was 9.8 percent, with the contribution rate growing from 14.87 percent to 16.34 percent and a subsequent 8.59 percent increase (from 16.34 percent to 17.74 percent) between the fiscal 2006 and fiscal 2007 school years.

In total, the Citizen's Research Council of Michigan expected the contribution rate to increase by more than 27 percent between 2004 and 2006. While the rate did not increase as rapidly as the Council expected, there was a 20 percent increase in the pension contribution rate between the 2004 and 2006 school years. Overall, the contribution rate has grown more since 2000 than it did from 1995 to 1999. Between

1995 and 1999, the contribution rate actually decreased by almost 20 percent: it was 14.56 percent in 1995 and 11.66 percent in 1999. From 2000 to 2004, the pension contribution rate increased by 22.22 percent, from 12.16 percent in 2000 to 14.87 percent in 2004.

Between 1995 and 2001, the total contribution growth rate was either below or relatively equivalent to the rate of growth in the foundation grant provided to districts. The foundation grant and MPSERS contribution rate increases practically mirrored each other. After 2002, however, the pension contribution growth rate increased dramatically, with the exception of the 2003 – 2004 school year, rising from 12.99 to 14.87. During this same period districts faced three consecutive years of no increase in their foundation grants, plus mid-year prorated funding reductions. Although foundation grants did increase for 2005-06, the nominal increase failed to adjust for the previous years of pro-ration and therefore the real dollar value of the foundation grant has declined. Consequently, over the last four years, real per pupil funding for all Michigan schools have declined while the employee benefit costs have risen sharply.

While districts can exert some level of control over health insurance costs through the negotiation process, they have little control over the rising retirement costs. Each Michigan public school district participates in the state governed MPSERS. The districts' contribution rate is set by the state Office of Retirement Services. A district's overall financial contribution is calculated by multiplying the state set contribution rate by the total value of the district's salaries. Therefore, while the pension contribution rate is uniform across all districts, the financial effect can vary between districts depending on the total value of that district's salaries. Subsequently, while a district cannot exert

influence over the state set pension contribution rate, they clearly can take steps to restrain salary growth.

Since the contribution rate is heavily predicated on the performance of the stock market, districts can expect to see an increase in their contribution rate in years where the markets perform poorly. During the mid to late 1990's, the contribution rate remained relatively stable due to the strong performance of the markets. In 2001 and 2002 the markets experienced a downturn which subsequently contributed to the increase in the rate.

Given that more than 20 percent of a district's operating budget is spent on health insurance and retirement, the continuous increase in these costs has forced districts to make difficult decisions in order to reduce expenditures for those areas they do control, meaning fewer teachers, supplies, and programs. For example, in April 2004, Dearborn Schools laid off 70 teachers due to a $7 million budget deficit. Of the $7 million deficit, $1.9 million can be attributed to a mandatory increase in pension costs (Krupa, 2004). In 2005, MSPERS instituted another increase in contributions from all Michigan districts. As a result, small districts paid on average $500,000 more in contributions, while certain larger districts paid up to $2.7 million more.

This increase exerted the greatest pressure in districts that already had a deficit. The Birmingham school district, for example, already had a $4.2 million deficit and was required to pay $1.6 million more in pension contributions. To offset these rising costs and reduce the existing deficit, they will be forced to cut programs and staff.

Table 1 Change in MSPERS Contributions in 2005 for Selected Michigan School Districts

(in millions of dollars)

District	2005 Contribution	Increase Over 2004
Avondale	$3.9	$.7
Birmingham	$10.6	$1.6
Bloomfield Hills	$8.4	$1.3
Dearborn Heights	$1.9	$.3
Dearborn	$17.8	$2.7
Farmington	$13.9	$2.1
Harrison Community	$1.6	$.3
Lake Orion Community	$6.3	$.9
Livonia	$17.8	$2.7
Macomb Intermediate	$7.3	$1.1
New Haven	$.87	$.13
Northville	$6.5	$1.0
Novi Community	$6.0	$1.0
Plymouth-Canton	$13.6	$2.1
Rochester Community	$12.6	$1.9
Romeo Community	$4.2	$.6
Shelby	$1.5	$.2
South Lyon	$4.,6	$.7
Southfield	$11.1	$1.7
Standish-Sterling	$1.4	$.4
Troy	$12.6	$1.9
Utica	$23.8	$2.6
Warren Consolidated	$14.7	$2.3
Warren Woods	$3.0	$.4
Wayne-Westland	$12.7	$1.9
West Bloomfield	$7.0	$1.0

Source: Michigan Office of Retirement Services

While there has been some literature on the financial effect of Proposal A on the school aid fund and revenues available to Michigan districts, little research has been done on rising employee costs. The current literature indicates that there has been an increase in employee costs, but the analysis on the impact to current operating expenditures has not been done. Further, nothing has been published as to the strategies that districts have employed to offset declining revenues and rising costs, or as to which of those strategies

have been successful. These are questions that my dissertation will seek to explore and address.

Michigan schools over the past five years have seen a decline in the real dollar value of their annual foundation grant and a rise in employee costs, causing many districts to face budget deficits. As a result, districts and legislators have explored a number of strategies to offset the current financial strain faced by many Michigan schools.

Policy Response

Rising employee benefit costs and the stagnation of the foundation grant have caused many districts and politicians to demand changes to the state's current funding system under Proposal A. Many believe the current system's funding mechanism is to blame for the financial crisis faced by Michigan districts.

In September 2005, driven by concerns about the gaps in school funding, the House passed the 2005-2006 school aid budget. This budget increased funding by $175 per pupil, raising the minimum foundation grant provided by the state aide budget to $6,875 per pupil. The vote was 107-2. While school districts and the MEA felt that this increase was a significant step forward, the budget that was approved by the House did not include a proposal that would have added an additional $25 per student to lower-funded districts. Additionally, while this was a 2.61 percent increase over the previous year, this increase did not keep pace with the year's projected inflation rate of 3.96 percent.

MSBO President Tom White reported in May 2005 that about 50 school districts in Michigan had less than a five percent fund balance as a percent of revenue. This meant that districts are running out of savings; these savings accounts typically are used to offset budget deficits or emergency spending needs. Urban area schools on the list of 50 included Ecorse, Jackson, Ferndale, Clintondale, Durand, Inkster, Bay City, Wyandotte, River Rouge, Allen Park, Berkley, Muskegon, and Hazel Park. White said those schools are fighting declining enrollment brought about, in part, by charters, schools of choice, and the lack of a School Aid Fund (SAF) increase over the past three years. Several districts, including Ironwood, Hillsdale, Manistee, Milan, Atlanta, Hancock, Woodhaven, Comstock Park, Portland, Morrice, Litchfield, Hastings, Howell, Holland, and Avondale, also had fund balances of less than five percent. While districts did receive an increase in their foundation grant as a result of the new budget, many felt that Michigan schools need a systemic insurance that the foundation grant will increase, at least at the rate of inflation, in addition to protection against the prorations of recent years. The MEA subsequently created a proposal for such automatic funding.

K-16 Coalition: Automatic Funding Proposal for Michigan Education

In November 2005, the Michigan Education Association (MEA) drafted a plan that would guarantee yearly increases for every school district. The K-16 coalition, a group of education officials, circulated a ballot proposal that would guarantee inflationary increases for state education programs. In essence, the proposal stipulated automatic annual increases in education funding at the rate of inflation. Not all interest groups and voters supported the K-16 coalition. The Michigan Chamber of Commerce was an

official opponent of the proposal, as were community colleges, state universities, and a variety of other organizations connected to the provision of public services. The Chamber opposed the proposal because they believed that taxes would have to increase in order to facilitate the automatic funding guarantee. An increase in taxes traditionally decreases business development. The Chamber said the state, particularly in its current budget situation, could not afford the automatic increases.

The K-16 coalition and the MEA were unable to convince the executive office and lawmakers to approve the proposal, but they were successful in obtaining enough signatures on their petition to have this proposal considered by the state legislature in June 2006. During the forty day consideration period, no action was taken by the Michigan state legislature. The proposal was therefore added to the November 7, 2006 ballot as Proposal 5. Proposal 5 was a legislative initiative to establish mandatory school funding levels. The Proposal read as follows:

The proposed law would:

- Increase current funding by approximately $565 million and require State to provide annual funding increases equal to the rate of inflation for public schools, intermediate school districts, community colleges and higher education (includes state universities and financial aid/grant programs).
- Require State to fund any deficiencies from General Fund.
- Base funding for school districts with a declining enrollment on three-year student-enrollment average.

- Reduce and cap retirement fund contribution paid by public schools, community colleges and state universities; shift remaining portion to the state.
- Reduce funding gap between school districts receiving basic per-pupil foundation allowance and those receiving maximum foundation allowance.

Proposal 5 was defeated with a vote of 68 percent to 32 percent.

Legislative Response to Rising Employee Costs

In addition to legislative efforts to increase the school aid fund, lawmakers have also passed a bill designed to give districts access to information that might help them offset rising insurance costs. Early in 2006, a bill passed a House committee that would allow a school district to see the insurance claims history from MESSA. Supporters of the bill contend that forcing MESSA to reveal this information would enable schools to determine whether they could find a better deal from another insurance provider. The bill, HB 4274, is the first piece of a two-bill effort that House Republicans are planning as they seek changes in how public schools handle health insurance. HB 4534, a second bill introduced prior to HB 4274, which would require school districts to use a competitive bidding process in selecting their health insurance carrier, was taken up in late spring of 2005.

In the summer of 2005 the Hay Report, sponsored by the State Republicans, stated that Michigan could save $165 per student in one year if it placed all of the state's 190,500 public school employees into one state-run health insurance pool. This pool

would offer a menu of different Preferred Provider Organizations (PPO) and Health Maintenance Organization (HMO) options, according to a report released by State Republicans. According to the Arlington, VA based Hay Group, only eight percent of the state's teachers would see a decrease in benefits. Another eighteen percent of school employees would see no change in benefits and a whopping 73 percent would see better benefits as a result of this proposal.

The Hay Group estimated that under this proposal the state would save between $57 and $193 million in Fiscal Year (FY) 2007. The report also conjectured that by FY 2010, when all of the current bargaining agreements would have expired, the savings would rise to between $215 and $422 million. However, a follow-up on the study, conducted by Reden & Anders, an actuarial firm, stated that "most of the projected savings items in the Hay Group report are either non-existent or significantly overstated." In their opinion, "the Hay Group report provides insufficient detail to support the derivation of several key savings components" (Reden & Anders, 2005)

A poll of Michigan voters done in late September 2005 showed that they supported the idea of a benefit pool for teachers. According to a recent poll conducted by the Marketing Resource Group (MRG) for Inside Michigan Politics, nearly half of Michigan voters support a measure requiring all Michigan school teachers and employees to become part of a statewide insurance pool to reduce healthcare costs for public school districts. Of the polls' respondents, 49 percent said they would support the measure with 26 percent saying they would strongly support it, and 23 percent saying they would somewhat support it. Only 27 percent of respondents were opposed to the measure with twelve percent somewhat opposed and fifteen percent strongly opposed. The remaining

24 percent said they neither opposed nor supported the proposal as they were unfamiliar with the issue in 2005.

The Senate Appropriations Committee held a hearing on the Hay Group findings on August 10, 2005. The MEA and the Michigan Federation of Teachers (MFT) were invited to discuss the proposal with the Hay Group that proposed that the state create a single, statewide system to provide health care for teachers and other public school workers. Of the two unions, the smaller MFT had begun to have a more positive reaction to the proposal. After emerging from another closed-door meeting on the issue, MFT president David Hecker said he put on the table the creation of a giant new insurance pool that would result in health care cost savings without "limiting benefits, options and collective bargaining." (MASSP News, 2005)

Asked if the GOP senators were buying that claim, Hecker told MIRS, "They do believe us. We've had productive meetings. We just need to continue to have meetings to see if we can build up the kind of support we need so we can get everyone on board and move forward." Hecker said his union has experience in creating insurance pools for both catastrophic and non-catastrophic coverage on a regional basis. Apparently they are working out the details to move that "model" to a statewide offering. "We want to have a bi-partisan approach," he said. As for the impact this might have on the MESSA insurance program owned and operated by the Michigan Education Special Services Association (MESSA), Hecker said, "There would be no impact on MESSA." (MASSP News, 2005)

Legislators have not only examined reports and proposals designed to control rising health care costs for Michigan schools, but also have begun to examine rising

retirement costs. The increased cost of teacher retirement was highlighted in a recent report from the Senate Fiscal Agency. Statistics from the 2006 report show that retired members are a growing part of the system; for the last several years, they have outnumbered the number of actively working members. The size of MPSERS has increased since the passage of Proposal A, and has grown most significantly over the past few years. In 1995-96, the system had 402,561 members; by 2003 – 2004, the system had 466,851 members. In the school employees system, retirees make up 145,588 members and that number has grown while the number of actively working members has declined. There were nearly 6,000 more retired members from 2002-03 to 2003-04, and nearly 5,700 fewer actively working members during the same time.

In late August 2005, Senate Republicans started building a case in hearings for legislation that ends pensions and tightens future retirees' health insurance (which are part of the overall retirement system) for future public school employees. They also worked to curry favor for a 401K-type system that sets stiffer criteria for school retirees to qualify for the system's best health coverage.

While legislators have begun to explore and act on the financial situation faced by Michigan school districts, these districts have been experiencing the financial strain for several years. Consequently, the districts themselves have employed a multitude of strategies designed to offset lower real dollar funding and rising costs. The districts' strategies going forward will largely be determined by whether or not the state intervenes to offset the rising benefit costs. If, for example, the state proceeds with a pooled insurance program for Michigan schools, districts may focus on strategies different from those currently employed. This study will analyze the various strategies districts have

employed to date, try to ascertain which strategies have been most successful, and review the potential legislative solutions to these rising costs.

District Strategies

Given that wholesale changes in the state's current funding system are unlikely in the short term and uncertain over the longer term, most districts are employing various cost reduction strategies to offset rising employee costs. The two primary employee costs referenced throughout this study are retirement and health care. It is very difficult for districts to effectively influence rising retirement expenses. As stated previously, a district's retirement costs are determined by their total district salaries and the pension contribution rate which is set by the state. Districts have no control over the pension contribution rate and therefore the only portion of the retirement cost equation that they can effect is with the district salaries. Districts can either cut their current salary expenditures by offering early retirements and buy outs, where they replace higher paid tenured teachers with lower paid new teachers, or negotiate minimal pay increases with the teacher and administrator unions. Over the past several years many districts have pursued both of these strategies. At the close of the 2004-05 school year, the Saline Area Schools offered a significant early retirement plan to its teachers, in order to decrease its total salary expenditures. Further, at the start of the 2006-07 school year, the teachers and administrators began the year with no new contract due to ongoing negotiations over salary increases. The teachers finally settled for a half of a percent raise this year and agreed to move from MESSA Super Care to MESSA Choices, a less expensive health care program.

Health care costs for a district are calculated by taking the total number of insured employees and multiplying it by the per employee cost; depending on employee type, these costs may vary by employee type—for teachers, administrators, and support staff employees. Unlike retirement costs, districts can effect many components of this equation. A district can change the insurance program overall, or decrease the costs for certain employee types. Further, they can choose to pass some of the per employee cost for health insurance on to the individual employees. The total health care cost can therefore be negotiated through collective bargaining with the teacher and administrator unions. Over the past few years, many districts have changed insurance to lower cost carriers and have passed on these costs, through collective bargaining agreements, to the districts employees.

In August 2005, Lakeview Public Schools entered into a new contract with its teachers. The contract is estimated to save up to $500,000 and avoid anticipated lay offs. The new contract gave teachers a 3.5 percent increase in pay but had the teachers switch from the MESSA coverage to premium Blue Cross/Blue Shield's PPO program. Feely Myrand of the Lakeview Schools said, "while I am grateful for the $175-per-pupil increase provided by the state, it cost the district more than that just to meet obligations in the new teachers' contract." Further to that, she said that "we estimate that just to pay for the raise, health care, and retirement it will cost $220 per student." That means none of the extra spending makes it to the classroom (Michigan Education Digest, Fall 2005).

The Holland school district shifted a portion of the health care costs onto the teachers in their district. They moved to a new health insurance plan and asked each employee to cover $199 a month for their own health care. Prior to the implementation

of this new plan, the district was paying more than $15,300 per teacher annually for health care costs. This change lowers the cost to approximately $13,000 per year (Michigan Education Digest, Fall 2005).

Like Lakeview and Holland, many districts have attempted to negotiate changes to their health insurance programs. In essence, most districts have four primary options to choose when seeking to decrease health insurance costs:

- Share premiums with employees
  - Set insurance caps, either in dollar or percentage increases, which would maximize the insurance provided by the district to the employee
- Increase premiums
  - Increase the co-pay for all services rendered to an employee
  - Increase the deductible for all services rendered to an employee
  - Increase the co-pay for prescriptions
- Reduce coverage
  - Reduce or eliminate coverage on preventive services, mental health, etc.
  - Reduce or eliminate expensive health benefits for certain employees (i.e. support staff)
  - Change who qualifies for coverage (decrease coverage for part time employees or increase the number of hours required for benefits)
- Change carriers
  - Move to an HMO program
  - Move to a self-funded insurance program
  - Change insurance carriers (i.e.- to Tri-med, low cost MESSA coverage)
  - Move to MESSA's new PPO program
  - Employ a passive PPO program (allows employee to use any doctor, but if they use a doctor in the PPO program it saves money for the district)

An MSBO survey conducted in May 2005 found that many districts are pursuing some form of a cost reduction strategy designed to offset the impact of rapidly rising

health care costs. The survey found "that 84 percent of Michigan school districts modified their health care plans during the previous year and that districts employed different strategies to lower costs: 73 percent increased their co-pays or deductibles, 70 percent shifted to a lower cost plan and 42 percent instituted or negotiated premium sharing with employees" (Michigan Education Digest, Fall 2005). "Next to school finance, (the cost of health care is) the biggest issue facing schools," said MSBO Executive Director Tom White. "In some districts it's bigger," he concluded. (Michigan Education Digest, Fall 2005).

Districts have been struggling with rapidly rising employee health care and retirement costs while dealing with slow revenue growth. Health care and retirement costs have grown most significantly from 2002 to 2005, while the foundation grant grew more slowly over these three years than in the previous seven. The remainder of this study will examine which districts have been most adversely affected by rising employee costs. I expect that districts that have declining enrollment and those that receive the minimum foundation grant will have experienced the most significant growth in the share of their current operating expenditures devoted to health care expenditures. Districts with declining enrollment will also likely have the highest health care expenditures per pupil because such districts are traditionally unable to reduce their staff and expenditures quickly enough to address the decrease in revenues that accompany declining enrollment. Once I have identified any systematic patterns pertaining to the impact of rising health care costs, I will then analyze the cost reduction strategies that have been pursued by districts, in order to determine if they have resulted in lower health care expenditures.

CHAPTER 3: RESEARCH METHOD

The primary purpose of the dissertation will be to ascertain changes in employee benefit costs and the subsequent impact on districts' operating budgets. Throughout the analysis I will attempt to identify patterns in budgetary adjustments across local school districts.

Research Questions

The questions to be addressed are as follows:

1. How has the share of Michigan school district operating expenditures devoted to employee benefits changed over time?
2. To what extent do the *level* of employee benefit costs vary across local districts, and do these variations follow any systematic patterns?
3. To what extent do *changes* in employee benefit costs over the 1994-2004 period vary across local districts, and do these variations follow any systematic patterns?
4. What measures have local districts taken to restrain the rise of employee benefit costs, and what patterns emerge among districts that have adopted these measures?
    a. Were districts that took steps to reduce benefit costs experiencing higher benefits costs beforehand?

5. How successful have efforts to reduce benefit costs been? In those districts that have adopted measures to restrain employee benefit costs, is the level or growth of expenditures on employee benefit costs lower?

To address these questions I utilized school district financial data available from the Michigan Department of Education (MDE). This data allowed me to ascertain the budgetary effect of rising employee benefit costs on Michigan school districts. In addition, I worked with the Michigan School Business Officials (MSBO) to conduct a survey of business managers for all Michigan school districts, in order to gain more detailed information on the strategies utilized by districts to restrain rising benefit costs. This data allowed me to evaluate the strategies employed by school districts, in order to identify patterns in the choices made by districts to counteract the rise in these costs.

Analysis of District Financial Data

The first step in this study was to analyze the trends in the cost of health care and retirement benefits for Michigan school districts.

Drawing on Form B data provided by the MDE, I examined the statewide average trends in the district expenditures for employee health care and retirement from the 1994-1995 to the 2003-2004 school year. The database I developed includes financial data for 551 Michigan school districts. While there were more than 551 districts in the MDE data, since charter schools were included in that data, only 551 of a total of districts statewide had accurate data for the entire nine year sample.[2] Charter schools were not

[2] In addition, the following districts' 1994-1995 data sets were removed due to inaccurate (i.e. the data reported was significantly outside the range for all of the following years) or non-existent enrollment reporting on the part of the district: Brimley Area Schools, Ithaca Public Schools, Berlin Township S/D #3, Cadillac Public Schools, Manton Consolidated Schools, Mesick Consolidated Schools, Flint City School District, and Lake Shore Public Schools.

included in the sample because virtually all charter schools did not have a complete set of data over the 10-year period. This is because charter schools were created as part of Proposal A in 1994; therefore, there were several charter schools that both opened and closed throughout the nine year sampling period. Moreover, many charter employees are employed by EMOs, not the charter school, so the charter school financial data reported to the state list these personnel costs as part of "purchased services" and it is therefore not possible to determine what portion of these expenditures go to pay for employee benefits.

I analyzed the revenue and expenditure trends over the nine year sampling period to determine the relationship between revenues, total operating expenditures, and expenditures on employee health and retirement benefits. Michigan school districts are required to provide audited financial statements to the Michigan Department of Education annually. Form B data includes revenue and expenditure data for each school district. In addition to overall expenditures, the data disaggregates expenditures into several categories, including salary, health care, retirement, and facilities.

The following variables were obtained or derived from MDE data for all school districts:

- General Fund revenue
- General Fund revenue/pupil enrollment
- Pension contribution rate
- Pupil enrollment
- Employee health insurance costs
- FICA/retirement costs
- Current operating expenditures

- Employee benefit expenditures/operating expenditures
- Employee benefit expenditures/General Fund revenue

Once a complete set of the data was compiled for the sample period, I loaded the Form B data into Excel spreadsheets for analysis. The datum was analyzed to determine growth rates in benefit costs and to determine if there were any systematic patterns. Four categories were used to test for patterns.

Community Type. In order to determine if there were differences in the impact of rising employee benefit costs on different types of school districts, I segmented the districts into five different community types, leveraging the Arsen and Plank (2003) use of geographical and demographic features to classify local school districts:

1. Central city
2. Low-income suburb
3. Middle-income suburb
4. High-income suburb
5. Rural

I expected that central city, low-income suburbs and rural districts would experience more rapid growth in health care expenditures per pupil and as a percent of a district's Current Operating Expenditures (COE). My hypotheses were based on the fact that central city districts and low income suburbs are facing an erosion of their pupil base, with more students migrating to middle income suburban districts; rural districts do not have the same economies of scale or health care choices.

Household Income. School district median family income in 2000 was obtained from the U.S. Census of Population, and the districts were then grouped by family income quintiles. I expected that the districts whose median family income was below $38,817 would have higher health care expenditures per pupil and as a percent of COE, due to pupil erosion and the fact that these districts are hampered with uninsured residents. Uninsured residents drive up the total health care costs for the area. Given that health care costs are not based on income levels, but that historically revenues per pupil were less for low income populations, I anticipate that low income quintiles will have higher than average health care expenditures as a percent of COE.

Quintile 1	$17,737 - $ 34,055	Lowest Income
Quintile 2	$34,117 – $ 38,817	Low – Mid Income
Quintile 3	$38,835 - $ 44,565	Middle Income
Quintile 4	$44,602 - $ 51,900	Mid-High Income
Quintile 5	$52,188 - $114,640	High Income

Enrollment Change. Enrollment change is expected to have a significant impact on a district's health care expenditures per pupil. Declining enrollment has the immediate effect of decreasing a district's available revenues, given that revenues are provided on a per pupil basis. Employee costs cannot decline immediately; therefore, I expect declining enrollment districts to have higher health care expenditures per pupil. Further, districts with rising enrollment should have the lowest health care expenditures per pupil.

Enrollment change was measured by districts' growth rates between 1995 and 2004. Two alternative groupings of school districts by this variable were utilized. The first interval grouping was as follows:

Highest Decline	<-1.27%				
Declining	-1.27%	<	x	<	-.26%
Stable	-.26%	<	x	<	+.50%
Increasing	+.52%	<	x	<	+1.42%
Highest Increase	>+1.43%				

In order to test the sensitivity of the results to this classification, district enrollment growth was also classified by the following intervals:

Highest Decline	<-3.0			
Declining	-3.0	<	x	< -1.25
Stable	-1.25	<	x	< +1.25
Increasing	+1.25	<	x	< +3.0
Increasing	>+3.0			

Funding Level. While Proposal A was designed to provide a minimum per pupil revenue standard for Michigan districts and eliminate the inequalities, I expect that those districts whose revenues were at or below the minimum per pupil standard in 1994 will have lower than average health care expenditures as a percent of COE. This is because they had the fastest growth in available revenues, so I expect a lower percent of those revenues were dedicated to health care by 2004 than the state average. I also expect, however, that these same districts had faster than average growth in health care expenditures per pupil between 1994 and 2004 because in 1994 they had less revenues available to devote to employee health care services. Conversely, the hold harmless districts would likely have higher than average health care expenditures per pupil by 2004 because while their revenues grew more slowly than the other lower funded

districts, they witnessed higher than average growth in these expenditures from 1994 to 2004. To test this hypothesis, the districts were segmented on their pre-Proposal A funding level in 1994:

Below Minimum	<$4200 Per Pupil
Above Minimum	$4200 < x < $6500 Per Pupil
Hold Harmless Districts	>$6500 Per Pupil

I began this research to answer five primary questions. Initially, the intent was to examine both retirement and health care costs. Once the data was analyzed, however, it became apparent that the retirement growth rates were relatively cyclical until 2004, when they began to rise dramatically. The MDE data was also only available through 2004 and therefore it was not possible to quantify the recent growth in retirement rates per pupil or as a percent of COE. Health care growth rates, however, rose steadily over the nine year sample period and I was therefore able to calculate growth in health care per pupil and as a percent of COE.

I calculated both a simple average for the health care cost variables as well as a pupil weighted average for a district's health care expenditures per pupil over the nine year sample period. The pupil weighted analysis is designed to lessen the effects of outlier school districts and equalize the effect of smaller school districts. The formulas used to pupil weight the data and calculate the growth rates are as follows:

Health Care Expenditures per Pupil - Pupil Weight Formula

Pupil weighting was done for each category analyzed. Below is the formula used to calculate the pupil-weighted health care expenditures per pupil for districts:

$$\Sigma \text{ HealthExp}_i / \Sigma \text{Pupils}_i$$

and the pupil-weighted share of expenditures devoted to heath care:

$$\Sigma \text{ HealthExp}_i / \Sigma \text{TotalExp}_i$$

Where:
HealthExp_i = health care expenditures for districts in category i
TotalExp_i = total current operating expenditures for districts in category i
Pupils_i = total pupil enrollment for districts in category i

Growth Rate

I used the compound annual growth rate formula to calculate the growth of variable X as:

$$[(Xrt_2/Xt1_n) \text{ ^ } (1/t2\text{-}t1)]\text{-}1$$

where t2 is the value of X in the terminal year and t1 is the value of X in the beginning year in the time period.

These formulas were used to analyze the MDE data in order to answer the first three research questions:

1. How has the share of Michigan school district operating expenditures devoted to employee benefit costs changed over time?

2. To what extent do the levels of employee benefit costs vary across local districts and do these variations follow any systematic patterns?

3. To what extent do changes in employee benefit costs over the nine year period vary across local districts, and do these variations follow any systematic patterns?

In order to answer the next set of research questions, I had to survey the Michigan School Business Officials (MSBO) and correlate the results of the survey to the MDE data.

MSBO Survey

To complement the Form B analysis, a survey was sent to school business officials that belong to the MSBO professional association.

Sample

The survey was sent to 537 active members of the MSBO. Of the total membership, 45 percent (243) members completed the online survey. This is a typical response rate for surveys distributed to MSBO members. Forty two percent of the 551 districts examined with Form B data replied to the survey. The survey was answered by the business manager in the district, who is the single person most likely to be knowledgeable about the questions asked in the survey.

While 243 members completed the survey, I found eleven duplicate responses from districts. Given that a district may have more than one MSBO member, it is possible that both members from the same district replied, but is equally possible that respondents recorded incorrect district codes. The duplicate responses were removed from the sample to maintain the integrity of the analysis and not double count the results. A list of the districts that completed the survey can be found in the Appendix.

Of the respondents there was a relatively representative sample across the five categories used to test for patterns, with the exception of districts with rapidly declining

enrollment, low income suburbs and hold harmless districts. The table below outlines the survey responses by each category. The response rate was calculated by dividing the category responses by the total response of 243.

Table 2 MSBO survey response rate by district category to total survey respondents

	Category	Responses	Rate
Community Type	Central City	5	2.06%
	Low Income Suburb	8	3.29%
	Middle Income Suburb	94	38.68%
	High Income Suburb	25	10.29%
	Rural	111	45.68%
Median Family	$17,737 < x < $34,055	37	15.23%
Income	$34,117 < x< $38,817	42	17.28%
	$38,835 < x < $44,565	42	17.28%
	$44,602 < x < $51,900	62	25.51%
	$52,188 < x < $114,640	60	24.69%
Enrollment Profile	Highest Decline	4	1.65%
	Declining	33	13.58%
	Stable	137	56.38%
	Increasing	52	21.40%
	Highest Increase	17	7.00%
Funding Level	< $4200/Pupil	43	17.70$%
	$4200 < x < $6500/Pupil	182	74.90%
	> $6500/Pupil	18	7.41%
State Total		243	100.00%

I also looked to determine if there was a representative sample based on the total districts for each category. The table below shows the total number of districts for each category, the number of these districts that responded to the survey, and their subsequent response rate. You will note that with the few exceptions already noted above, the response rate was relatively equivalent to the overall state response rate of 44.10%. In this table the response rate was calculated by dividing the survey response total by the total districts for each category.

Table 3 MSBO survey response rate by district category to total district's analyzed

Category		Total Districts	Responses	Total/Responses
Community Type	Central City	15	5	33.33%
	Low Income Suburb	21	8	38.10%
	Middle Income Suburb	185	94	50.81%
	High Income Suburb	35	25	71.43%
	Rural	395	111	37.63%
Median Family Income	$17,737 < x < $34,055	109	37	24.77%
	$34,117 < x< $38,817	110	42	38.18%
	$38,835 < x < $44,565	112	42	37.50%
	$44,602 < x < $51,900	112	62	55.36%
	$52,188 < x < $114,640	104	60	57.69%
Enrollment Profile	Highest Decline	27	4	14.81%
	Declining	83	33	39.76%
	Stable	311	137	44.05%
	Increasing	100	52	52.00%
	Highest Increase	30	17	56.67%
Funding Level	< $4200/Pupil	104	43	41.35%
	$4200 < x < $6500/Pupil	400	182	45.50%
	> $6500/Pupil	47	18	38.30%
State Total		551	243	44.10%

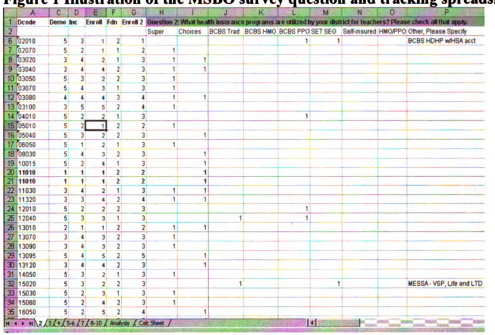
Instrumentation

The MSBO survey asked districts about their health insurance programs and any steps they had taken to reduce the costs associated with those programs. A survey invitation was sent via e-mail to all active members on March 28, 2006; the membership was given one week to respond, though this window was later extended to two weeks to increase participation. This email requested their participation in an MSBO survey and provided a link to an online survey. A reminder was sent to the membership regarding the survey one week after the start of the survey.

Procedures

Once the survey was closed, the MSBO obtained the raw survey data results from the online company that they use for conducting these surveys. These results were then emailed to me. Upon receipt, I reviewed the results and organized the data by question and response into an Excel workbook. One or two questions were associated with each worksheet and once again the districts were listed in rows while the question and responses were listed in the columns. An illustration of the questions and results is provided below; the detailed survey results can be found in the Appendix.

Figure 1 Illustration of the MSBO survey question and tracking spreadsheet



	A	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	Dcode	Demo Inc	Enroll	Fdn	Enroll 2	Question 2: What health insurance programs are utilized by your district for teachers? Please check all that apply.									
2							Super	Choices	BCBS Trad	BCBS HMO	BCBS PPO SET SEO		Self-insured HMO	PPO Other, Please Specify	
16	02010	5	3	1	2		1					1	1		BCBS HDHP wHSA acct
17	02070	5	2	1	1		2	1							
18	03030	3	4	2	1		3	1	1						
19	03040	3	4	4	2		3	1	1						
20	03050	5	3	2	2		3	1							
21	03070	5	4	3	1		3	1							
22	03080	4	4	4	3		4	1	1						
23	03100	3	5	5	2		4	1							
24	04010	5	2	2	1		3				1				
25	05010	5	1	1	2		2	1							
26	05040	5	3	2	2		3	1							
27	06050	5	1	2	1		3	1							
28	08030	5	4	3	2		3	1	1						
29	10015	5	2	4	1		3	1	1						
30	11010	1	1	1	2		2	1	1						
31	11010	1	1	1	2		2	1	1						
32	11030	3	4	2	1		3	1	1						
33	11320	3	3	4	2		4	1	1						
34	12010	5	2	2	2		3				1				
35	12040	5	3	3	1		3		1		1				
36	13010	2	1	1	2		2	1	1						
37	13070	3	4	3	2		3	1							
38	13090	3	4	3	2		3	1							
39	13095	5	4	5	2		5	1							
40	13120	3	4	4	2		3	1							
41	14050	5	3	2	1		3	1							
42	15020	5	3	2	2		3		1				1		MESSA - VSP, Life and LTD
43	15035	5	2	3	1		3	1							
44	15060	5	2	4	2		3	1							
45	16050	5	2	5	2		4	1							

All answers provided as a "yes" were converted to the number one so that analysis could be performed.

The MSBO survey allowed me to determine, from the survey respondents, which districts attempted strategies to restrain rising health care costs. I classified districts that

had changed carriers, coverage, plans, or a combination of all three as having taken "active steps."

Once I had determined which districts had utilized which strategies to attempt to offset their rising health care costs, I then cataloged these steps in accordance with the survey questions. I analyzed the answers to each of the questions to determine the following:

- What type of districts responded to the survey and did I have a representative sample from the various dimensions
- Which health insurance plan changes were the most common for teachers, administrators, and support staff
- Which carriers did the districts switch from and to
- Which districts changed programs and were there any patterns to the type of districts that changed co-pays versus those who reduced or eliminated coverage

I then compared the change in health care expenditures for districts that made changes in their carriers, coverage, or plans to determine if they had higher than average expenditures from 1995 – 2000. This analysis allowed me to determine if those districts that had higher than average health care expenditures led them to proactively pursue strategies designed to restrain these rising costs.

Finally, I compared health care expenditure growth in districts that reformed their health insurance plans to districts statewide, to determine if these strategies were successful in slowing health care costs.

CHAPTER 4: EMPIRICAL RESULTS

This chapter provides the results of the MDE Form B analysis and the MSBO survey. The presentation of results is organized by the study's research questions.

Impact of the Rising Pension Contribution Rate

As stated previously, each year districts must contribute the specified pension contribution rate on behalf of their salaried teachers, administrators, and support staff to the Michigan Public Schools Employees Retirement System (MPSERS). The pension contribution rate is set by MPSERS; the amount due from each district is determined by taking the total salaries for all district employees and multiplying by the pension contribution rate. This calculation determines the total dollar amount that the district must provide to MPSERS each year. Between 1994 and 2004, the pension contribution rate actually declined, from 14.21 percent in 1994 to 12.99 percent in 2004. This decline was due to the 1997 Durant settlement and recent state subsidies for the pension fund.

Table 4 Pension contribution rate from 1994 to 2004

	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02	02-03	03-04
Rate	14.21%	14.56%	15.17%	11.12%	10.77%	11.66%	12.16%	12.17	12.99%	12.99%

From 1994 to 1998 the pension contribution rate grew modestly from 14.21 percent to 15.17 percent. In 1997 there was a sharp decline, from 15.17 percent during the 1996 to 1997 school year to 11.21 percent during the 1997 to 1998 school year. This decline was due to the Durant settlement that occurred in 1997. The Michigan Supreme

Court found that the state had violated the Headlee Amendment as it pertained to maintaining proportional funding levels for several specific education programs. This financial settlement subsequently affected how the pension contribution rate was calculated. From 1997 to 2004, the pension contribution rate increased slightly, from 11.21 percent in 1997 to 12.99 percent in 2004, when the rate began to rise more dramatically.

While the pension contribution rate for Michigan schools was 12.99 percent in 2003-04, the actual rate was 14.37 percent. Beginning in 2003 the actual calculated rate was approximately 1.5 percent higher than the MPSERS pension contribution rate due to state subsidies. The table below outlines the pension contribution rate and subsidies from 2003 to 2007. The rate was not subsidized in any years other than those listed below. If the actual calculated rate were utilized instead of the subsidized rate, districts would have experienced minimal growth over the nine years of 1.13 percent.

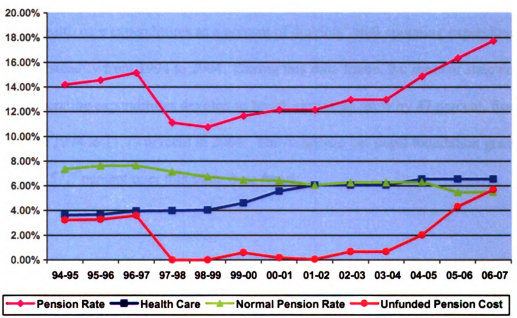
Table 5 State subsidies and pension contribution rates 2002 - 2006

Rate	03-04	04-05	05-06	06-07
Calculated rate	14.37%	16.60%	16.82%	17.74%
Less state subsidy	1.38%	1.73%	.48%	0.00%
District contribution rate	12.99%	14.87%	16.34%	17.74%

Though the pension contribution rate did not increase between 1994 and 2004, the rate did begin to rise dramatically during the 2004 to 2005 school year. Between the 2004 to 2006 school years the pension contribution rate increased by 20 percent, after declining by an average of .99 percent annually from 1994 to 2004. The growth in the pension contribution rate in recent years was largely due to rapid growth in one of the components that comprise the rate. The pension contribution rate is comprised of three

primary components: health care costs, normal pension cost, and unfunded pension cost. What is the difference between normal pension costs and unfunded pension costs? Over the thirteen year time frame, the normal pension cost declined slightly from 7.34 percent in 1994 to 5.49 percent in 2006. During this same time, the health care component almost doubled from 3.68 percent in 1995 to 6.55 percent in 2006. The decrease in the pension contribution component and the increase in the health care cost somewhat offset one another, resulting in only a slight increase over the thirteen year time period. The unfunded pension cost, however, varied dramatically during this time. Figure 1 below shows the growth in the pension contribution rate and each of its components from 1994 to 2006.

Figure 2 Change in pension contribution rate components 1994 to 2006



As Figure 1 shows, growth in the unfunded pension cost has largely driven the overall growth in the pension contribution rate over the last three years. By 2003, the health care cost component had already doubled. The main factor was the unfunded

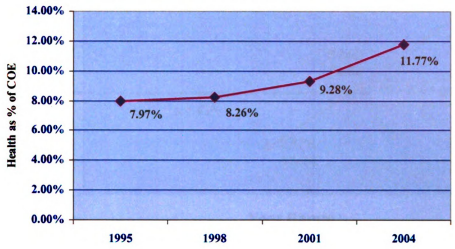
pension component, which was zero to less than one percent between 1997 and the 2003 school years. This component jumped from .68 percent in 2003 to 5.70 percent by 2007.

While the pension contribution rate has risen by more than 20 percent since 2004, the rate actually declined during the nine year sample period used for this study. Though the pension rate did not increase, health care expenditures did rise from 1994 to 2004. One aspect that makes health care interesting is that local districts have discretion in determining the rate that they pay for their healthcare, whereas the rate for retirement is set by the state and not subject to the district's discretion. Therefore, this study will turn to the impact of rising health care costs and the strategies districts pursued to restrain growth in health care expenditures.

Change in share of operating expenditures required to fund employee benefits

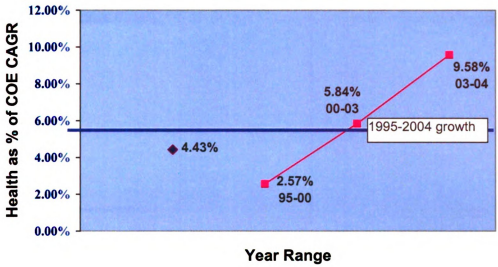
Health care expenditures as a percent of districts' total operating expenditures increased steadily from 1994 to 2004. During this time frame, the share of statewide school operating expenditures devoted to health care costs grew by 47 percent, from 7.97 percent in 1994 to 11.77 percent in 2004. The minimum per pupil foundation grant increased 57.7 percent over this same time frame.

Figure 3: Average health care expenditures as a share of COE, 1995 – 2004



Overall, health care expenditures as a percent of COE grew annually by 4.43 percent from 1994 to 2004. Between 1994 and 2000, health care expenditures as a percent of COE increased 13.57 percent (2.57 percent per year). Growth more than doubled to 30 percent between 2000 and 2004.

Figure 4: Annual growth in health care expenditures as a percent of COE, 1995-2004



Meanwhile, over this same recent time period, the minimum per pupil foundation grant only increased 16.25 percent. Districts, consequently, had to utilize a significantly greater percentage of their operating budgets between 2000 and 2004 to fund health care expenditures in an environment of slow revenue growth.

As indicated from the table below, districts are spending an increasing amount of their operating budgets on employee benefit costs. The decline that occurred from 1997 to 2002 was due to the Durant Settlement. Pension contribution rates have steadily increased since 2002. As health care costs and the pension contribution rate rise in tandem, districts are forced to spend a greater percentage of their revenues on employee benefits.

Table 6 Health care expenditures as a percent of COE and the pension contribution rate 1995 – 2004

Fiscal Year	Health as % of COE	Pension contribution rate	Average health care and pension contribution rate
1994-1995	7.97%	14.21%	22.18%
1995-1996	7.89%	14.56%	22.45%
1996-1997	8.05%	15.17%	23.22%
1997-1998	8.26%	11.12%	19.38%
1998-1999	8.60%	10.77%	19.37%
1999-2000	9.06%	11.66%	20.72%
2000-2001	9.28%	12.16%	21.44%
2001-2002	9.68%	12.17%	21.85%
2002-2003	10.74%	12.99%	23.73%
2003-2004	11.77%	12.99%	24.76%

This fact can be underscored by examining the distribution of the health care expenditures as a percent of COE during the first and last years of the sample period. Table 3 offers information on the dispersion of health care expenditures across districts. In 1994, the gap in share of COE devoted to health expenditures distribution appears to be fairly uniformly spread between the 10^{th} and 90^{th} percentile, with a difference of 3.23 percent. By 2004, the difference between the 10^{th} and 90^{th} percentile was 4.81 percent, indicating the gap between the 90^{th} and 10^{th} percentile had widened by 49 percent. The range between the districts with high health care expenditures as a percent of COE and those with low expenditures is increasing.

Table 7 Distribution of health expenditures as a % of COE for 551 Michigan School Districts in 1994 and 2004

Distribution	1994	2004
Highest Health Care Expenditure as % of COE	12.98%	17.77%
90^{th} Percentile	9.76%	14.43%
Median	8.03%	11.81%
10^{th} Percentile	6.53%	9.62%
Lowest Health Care Expenditure as % of COE	1.60%	2.60%
Standard Deviation	1.59	2.36

The standard deviation in 1994 was 1.59; this figure increased to 2.36 in 2004. These data results indicate that districts across the board are devoting more of their COE to health care expenditures in 2004 than they were in 1994 and that there is a greater spread in the distribution between the lowest and highest expenditures.

The variation in health care expenditures per pupil among the districts studied changed even more significantly. In 1994, the difference in health care expenditures per pupil between the 10^{th} and the 90^{th} percentiles was $260.75. This grew by 81 percent to $471.43 by 2004. Again, the standard deviation increased significantly, growing 179 percent.

Table 8 Distribution of health expenditures per pupil for 551 Michigan School Districts in 1994 and 2004

Distribution	1994	2004
Highest Health Expenditures per Pupil	$2128.00	$8067.10
90^{th} Percentile	$595.91	$1192.74
Median	$430.90	$913.87
10^{th} Percentile	$335.16	$721.31
Lowest Health Expenditures per Pupil	$99.44	$304.27
Standard Deviation	155.93	435.39

The data analyzed therefore reveals a significant change in the share of districts' operating expenditures devoted to employee benefits from 1994 to 2004, with the most significant growth occurring between 2000 and 2004.

Systematic Patterns in Employee Benefit Costs

The data analysis was designed to test several hypotheses around the expected systematic patterns in rising employee benefit costs. The following district types were expected to have higher than average health care expenditures:

Central City and Declining Enrollment School Districts. Central city districts have faced pupil erosion over the past nine years as families with children have migrated to suburbs. Declining pupil enrollment results in lower total revenues for a school district, but not necessarily lower health care costs. Due to the contract negotiation and budget cycles, in addition to bureaucratic phenomena, districts are not able to decrease costs at the same rate and time as their revenues decline. I expect that central city districts will have had average or slightly below average health care expenditures as a percent of COE in 1994 but will have above average expenditures in 2004 due to the pupil erosion.

Rural Districts. Rural districts have a lower average pupil base and yet higher than average health care costs, due to the lack of choice in rural regions. These districts do not have the same economies of scale opportunities of suburban school districts. I expect rural districts will have had higher than average expenditures in 1994 and in 2004, due to their lower pupil base.

Minimally Funded Districts. Districts whose per pupil revenue was below the $4200 minimum in 1994 are expected to have higher health care costs because they likely spent a smaller portion of their revenues on health care expenses prior to 1994. I expect that they will experience, therefore, the greatest growth in their health care expenditures as a percent of COE.

To determine if the above hypotheses were true and to test for additional systematic patterns, I categorized each district by community type, income, funding, and

enrollment levels. To calculate the amount of the district's expenditures that were devoted to health care benefits, I divided their annual health care expenditures by the district's total operating budget to determine their health care expenditures as a percent of COE. In order to determine the health care expenditures for each category, I averaged the health care expenditures as a percent of COE for all districts within that specific category. For example, I averaged the health care expenditures as a percent of COE for all districts that were categorized as central city districts.

Once the calculations were complete, I was able to test the hypotheses. As hypothesized, central city, rural, declining enrollment, and minimally funded districts all had health care expenditures as a percent of COE that were higher than the state average in 2004. Central city districts expenditures were below the state average in 1994, whereas all other district categories were slightly above the average. Declining enrollment and districts whose median family income was the lowest had the highest health care expenditures as a percent of COE. The table below outlines the health care expenditures as a percent of COE for all districts in 1994 and in 2004. Those highlighted in red are above the state average.

Table 9 Health care expenditures as a percent of COE for each category 1994 and 2004

Category		1994	2004
Community Type	Central City	7.81%	12.01%
	Low Income Suburb	7.96%	11.58%
	Middle Income Suburb	7.73%	11.34%
	High Income Suburb	7.85%	11.11%
	Rural	8.15%	12.12%
Median Family Income	$17,737 < x < $34,055	8.62%	12.59%
	$34,117 < x< $38,817	8.15%	12.50%
	$38,835 < x < $44,565	7.79%	11.44%
	$44,602 < x < $51,900	7.58%	11.16%
	$52,188 < x < $114,640	7.82%	11.21%
Enrollment Profile	Highest Decline	8.02%	11.10%
	Declining	8.27%	12.58%
	Stable	8.08%	11.92%
	Increasing	7.71%	11.57%
	Highest Increase	6.92%	9.24%
Funding Level	< $4200/Pupil	8.08%	11.99%
	$4200 < x < $6500/Pupil	7.91%	11.73%
	> $6500/Pupil	8.29%	11.61%
Statewide	Average	7.97%	11.77%

With one exception, all districts that were expected to have higher than average health care expenditures as a percent of COE did have an average that was higher than the state. This data indicates that districts that receive the greatest funding, have mid to high median family incomes, and/or rapidly rising enrollment have the lowest health care expenditures as a percent of COE. It is interesting to note that the hold harmless districts' health care expenditures as a percent of COE were four percent above the state average in 1994 but slightly below the average in 2004.

While the funding gap declined as a result of Proposal A and the minimum foundation grant, it appears from the above data than an expense gap developed in its place. Central city, rural, low income, and declining enrollment districts must devote a larger portion of their COE to health care expenditures than high income, rising

enrollment districts. Therefore, while their revenues have increased, the health care burden has increased for these districts more significantly than for those that are in mid to high income, rising enrollment districts.

As one would expect, these distressed districts also had higher than average health care expenditures per pupil. To determine the average health care expenditures per pupil, I calculated each district's health care expenditures per pupil (health care expenditures divided by pupil enrollment for each year) and then averaged for all districts within the category. Table 6 below outlines the average health care expenditures per pupil for 1994 and 2004. Districts whose average health care expenditures per pupil were higher than the state average are again highlighted in red.

Table 10 Average health care expenditures per pupil for each category 1994 and 2004

Category		1994	2004
Community Type	Central City	$ 510.90	$1319.16
	Low Income Suburb	$ 553.47	$1029.12
	Middle Income Suburb	$ 460.20	$ 877.88
	High Income Suburb	$ 512.50	$ 951.72
	Rural	$ 437.52	$ 999.40
Median Family Income	$17,737 < x < $34,055	$ 499.34	$1096.22
	$34,117 < x< $38,817	$ 445.15	$1028.21
	$38,835 < x < $44,565	$ 446.88	$ 961.96
	$44,602 < x < $51,900	$ 433.37	$ 852.90
	$52,188 < x < $114,640	$ 462.62	$ 874.80
Enrollment Profile	Highest Decline	$ 565.82	$1561.95
	Declining	$ 453.35	$1047.58
	Stable	$ 452.41	$ 938.89
	Increasing	$ 445.62	$ 880.81
	Highest Increase	$ 427.58	$ 689.06
Funding Level	< $4200/Pupil	$ 378.63	$ 904.96
	$4200 < x < $6500/Pupil	$ 454.45	$ 924.76
	> $6500/Pupil	$ 661.57	$1406.80
Statewide	Average	$ 457.99	$ 954.60

The health care expenditure effect on each category of district was much more pronounced with the per pupil variable than the COE. In 1994, most districts had health care expenditures per pupil that were at or only slightly above the state average. The largest variance between the state average and an individual category, in hold harmless districts, was $203.58. By 2004, the variance was $607.35 between the state average and districts with rapidly declining enrollment. Central city and rapidly declining enrollment districts experienced the most significant change in their per pupil expenditures from 1994 to 2004. What was surprising was that the hold harmless districts had the second highest health care expenditures per pupil. These districts did, however, have the highest health care expenditures per pupil in 1994, so their total growth was less than central city and declining enrollment districts. Given that these districts had the most revenues, I expect they also had the best salary and benefits programs so as to attract the best teachers to these schools.

As expected, districts whose health care expenditures as a percent of COE that were higher than the state average also had higher health care expenditures per pupil, except for the hold harmless districts. Once again, districts whose median family income is greater than $44,602 and who are experiencing rising enrollment have the lowest average healthcare expenditures per pupil. Just as districts with the highest increase in enrollment had the lowest health care expenditures as a percent of COE, these same districts have the lowest health care expenditures per pupil. The primary difference between health care expenditures as a percent of COE and per pupil is with the funding levels. Districts that were at or below the $6500 per pupil funding level in 1994 had higher than the state average health care expenditures as percent of COE but lower health

care expenditures per pupil in 2004. This might suggest that these districts have experienced some amount of pupil erosion as well between 1994 and 2004.

The tables up to this point present average expenditures for groups of districts based on their type. One challenge with utilizing only simple averages is that tiny rural districts have the same weight in the average as Detroit, the state's largest district. An alternative way to display averages for groups of districts is to weight each district by its enrollment size, so a district with 20,000 students counts twice as much as one with 10,000 students in the calculation of the average. Pupil weighting ensures that a small district does not skew the results and minimizes the impact of outliers. It makes sense to perform the calculations both ways, to assess the sensitivity of the results to this measurement.

The table below provides the pupil weighted health care expenditures per pupil for 1994 and 2004. Again, districts whose pupil weighted averages are higher than the state are highlighted in red. Districts whose average health care expenditures per pupil were higher than the state average before pupil weighting are highlighted in green. Items in blue denote that the pupil weighted average was higher than the non-weighted average.

Table 11 Pupil weighted average health care expenditures per pupil for each category 1994 and 2004

Category		1994	2004
Community Type	Central City	$ 459.94	$1023.69
	Low Income Suburb	$ 559.25	$1022.40
	Middle Income Suburb	$ 475.61	$ 894.741
	High Income Suburb	$ 536.22	$ 1006.83
	Rural	$ 425.74	$ 924.50
Median Family Income	$17,737 < x < $34,055	$ 447.74	$1003.93
	$34,117 < x< $38,817	$ 481.84	$1025.57
	$38,835 < x < $44,565	$ 455.75	$ 912.54
	$44,602 < x < $51,900	$ 452.10	$ 858.40
	$52,188 < x < $114,640	$ 509.84	$ 951.44
Enrollment Profile	Highest Decline	$ 427.76	$1646.07
	Declining	$ 604.49	$1118.95
	Stable	$ 451.23	$ 941.80
	Increasing	$ 466.14	$ 908.97
	Highest Increase	$ 505.94	$ 840.13
Funding Level	< $4200/Pupil	$ 397.21	$ 930.78
	$4200 < x < $6500/Pupil	$ 432.85	$ 919.82
	> $6500/Pupil	$ 643.16	$1139.35
Statewide	Average	$ 471.91	$ 946.57

Pupil weighting had various effects on the expenditures for each of the district types but no discernable pattern emerged. One of the biggest changes between the average expenditures and the pupil weighted averages was that the hold harmless districts had the highest average health care expenditures per pupil but only the second highest pupil weighted average. This is significant because the difference between their average expenditures and their pupil weighted average was $268.17. That represents the most significant per pupil change between the weighted and non-weighted figures.

As evidenced by the above data, there were significant variations across the four categories analyzed, indicating several systematic patterns. In 2004, central city, low income suburbs, districts with declining enrollment, and those with low median household incomes all had higher than the state average health care expenditures per

pupil, even when pupil weighted, and higher than average health care expenditures as a percent of COE. Conversely, districts with rising enrollment, mid to high income households, and middle income suburbs all had health care expenditures per pupil below the statewide average, even when pupil weighted, in addition to operating expenditures devoted to employee benefit costs below the statewide average. Hold harmless districts had higher than average health care expenditures per pupil, but their health care expenditures as a percent of their COE were less than the state average. This suggests that while Proposal A was designed to reduce the funding inequities between districts, these inequities have reappeared due to the impact of rising health care costs. As one would expect, these same systematic patterns are evident when analyzing the change in employee benefit costs.

Systematic patterns to changes in employee benefit costs from 1994 – 2004

There are a number of interesting patterns in the change in health care costs. I expected that central city, rural, declining enrollment, and minimally funded districts would have highest annual growth rates in health care expenditures per pupil and as a percent of COE. To determine the accuracy of the hypothesis, I calculated the annual growth rate in health care expenditures per pupil and as a percent of COE from the 1994-95 school year to the 2003-04 school year, for each district. I then calculated the average growth for each school district category. Table 8 displays the average growth in share of COE devoted to health care and per pupil health care expenditure for all categories of school district groups. Districts whose average is above the state average are denoted in red text.

Table 12 Average growth of health care expenditures per pupil and as a percent of COE by category 1994 to 2004

Category		Average Annual Growth Rate		
		Health as % of COE	Avg health /pupil	Pupil weighted health/pupil
Community	Central City	4.90%	11.12%	9.30%
	Low Income Suburb	4.25%	7.13%	6.93%
	Middle Income Suburb	4.35%	7.44%	7.27%
	High Income Suburb	3.93%	7.12%	7.25%
	Rural	4.51%	9.61%	9.00%
Median	$17,737 < x < $34,055	4.30%	9.13%	9.39%
Family	$34,117 < x< $38,817	4.87%	9.75%	8.76%
Income	$38,835 < x < $44,565	4.36%	8.89%	8.02%
	$44,602 < x < $51,900	4.39%	7.81%	7.38%
	$52,188 < x < $114,640	4.08%	7.34%	7.18%
Enrollment	Highest Decline	3.68%	11.94%	16.15%
Profile	Declining	4.77%	9.75%	7.08%
	Stable	4.41%	8.45%	8.52%
	Increasing	4.61%	7.86%	7.70%
	Highest Increase	3.26%	5.45%	5.80%
Funding	< $4200/Pupil	4.48%	10.17%	9.92%
Level	$4200 < x < $6500/Pupil	4.48%	8.21%	8.74%
	> $6500/Pupil	3.81%	8.74%	6.56%
Statewide	Average	4.43%	8.50%	8.04%

As one would expect from the previous data analysis, the hypotheses proved largely true. Declining enrollment districts experienced the most significant average annual growth in expenditures per pupil, even when pupil weighted. Central city districts had the highest average annual growth in expenditures as a percent of COE and one of the highest per pupil growth rates, even when pupil weighted. Rural districts experienced growth that was above the state average but not as significant as central city or declining enrollment districts. Minimally funded districts had one of the highest average annual growth rates in pupil weighted expenditures, but their growth as a percent of COE was only .05 points above the state average. Recall that hold harmless districts had one of

the highest per pupil expenditures in 2004, even when pupil weighted, but the average growth rate is only slightly above the state average. The pupil weighted average is, however, eighteen percent below the state average.

While not originally hypothesized, low income suburbs also experienced significant growth in health care expenditures as a percent of COE and per pupil. This was not a complete surprise given the obvious change in their 1994 and 2004 averages in tables 5 and 6.

As with the other systematic patterns, central city, rural, districts with low median family incomes, minimally funded districts, and those with declining enrollment had growth in their health care expenditures that were higher than the state average. Districts whose median family income was above $38,835 and those with rapidly rising enrollment saw the slowest growth in health care expenditures per pupil and as a percent of COE.

These changes further indicate that there are inequities between low to mid income and low funding districts, and the mid to high income, high funding, and hold harmless districts, suggesting that Proposal A did not effectively eliminate the inequities between districts. While their total funding levels increased the per pupil expenditures in the distressed districts, the percent of the COE that they devoted to health care increased significantly as well.

It is important to note that regardless of category, the statewide average annual growth in health care expenditures per pupil was higher than the average annual growth in the foundation grant (5.19 percent) between 1994 and 2004. Health care expenditures as a percent of COE grew slower than the foundation grant by only .76 points. This

would indicate that all increases in per pupil revenue were used to fund increases in health care costs for districts.

Patterns among districts that pursued cost reduction strategies for health care

To establish whether there was a correlation between the district's health care expenditures and their pursuit of cost reduction strategies, I examined the health care expenditures per pupil and as a percent of COE for all districts that responded to the MSBO survey. Of the 232 districts that responded to the survey, 96 percent pursued at least one cost reduction strategy. Only ten districts pursued no strategies; another three districts changed carriers but did not pursue any other cost reduction strategy.

I then compared the health care expenditures for the responding districts to the statewide sample to determine whether there was a relationship between a district's level of expenditures and their propensity to pursue cost reduction strategies. I expected that districts with higher than average health care expenditures would pursue more cost reduction strategies than districts whose expenditures were at or below the statewide average.

Between 1994 and 2004, districts that pursued at least one or more cost reduction strategy had an average annual growth of 9.47 percent in health care expenditures per pupil, as compared to the state average of 8.50 percent. Of the 232 responding districts, 114 experienced annual growth in per pupil expenditures that were higher than the state. The table below outlines the health care expenditures per pupil from 1994 to 2004 for the responding districts.

Table 13 Average health care expenditures per pupil 1994 to 2004 as compared to the number of cost reduction strategies pursued

# of Strategies Pursued	# of districts	1994	2000	2004	94-00 growth	94-04 growth
0	10	$455.69	$668.81	$946.30	7.98%	8.46%
1	24	$441.63	$635.23	$928.90	7.54%	8.61%
2	27	$469.86	$640.33	$933.62	6.39%	7.93%
3	44	$466.70	$672.69	$946.93	7.59%	8.18%
4	48	$447.31	$619.40	$890.29	6.73%	7.95%
5	38	$438.93	$645.62	$965.72	8.02%	9.16%
6	23	$445.08	$596.01	$852.95	6.01%	7.49%
7	14	$478.80	$643.11	$870.26	6.08%	6.86%
8	4	$357.30	$599.92	$815.80	10.92%	9.61%
State Avg	--	$457.99	$643.26	$954.60	7.03%	8.50%

As hypothesized, the above data does not indicate that districts that pursued one or more cost reduction strategies categorically had growth rates or average per pupil expenditures that were significantly higher than the state average between 1994 and 2004. The overall growth for the responding districts was, however, significantly higher than the statewide average for all 551 districts. That data does suggest that districts who responded to the survey were experiencing faster growth in health care expenditures per pupil than the remaining districts, but there was not a correlation between the number of strategies a district pursued and their average annual growth. This was also true for health care expenditures as a percent of COE.

The table below outlines the health care expenditures as a percent of COE from 1994 to 2004 for districts that pursued cost reduction strategies, as compared to the state average and those districts that chose not to pursue any strategies. Unlike the growth in per pupil expenditures, the average growth in expenditures as a percent of COE for the survey respondents was very close to the growth statewide.

Table 14 Health care expenditures as a percent of COE 1994 to 2004 as compared to the number of cost reduction strategies pursued

# of strategies pursued	# of SD's	1994	2000	2004	94-00 growth	94-04 growth
0	10	7.48%	8.97%	11.85%	3.70%	5.25%
1	24	8.32%	9.33%	11.83%	2.32%	3.99%
2	27	8.11%	9.13%	11.91%	2.40%	4.36%
3	44	8.02%	9.18%	11.98%	2.74%	4.56%
4	48	8.09%	9.15%	11.67%	2.49%	4.16%
5	38	7.87%	9.19%	11.93%	3.15%	4.73%
6	23	7.68%	8.52%	11.05%	2.10%	4.13%
7	14	8.56%	9.52%	11.34%	2.15%	3.17%
8	4	6.42%	8.78%	10.32%	6.46%	5.42%
State Avg	--	7.97%	9.06%	11.77%	2.60%	4.43%

There was, however, a relationship between a district's health care expenditures and the type of cost reduction strategies they chose to pursue. Districts that chose to add new carriers, increase deductibles, institute a cafeteria plan, and change insurance plans with the same carrier (between 2000 and 2006) had the fastest growth in their health care expenditures per pupil between 1994 and 2000. Between 2000 and 2004, districts that chose to change insurance plans within the same carrier, increased co-pays for prescriptions, and added new carriers had the highest growth in health care expenditures per pupil. Table 11 outlines the health care expenditures per pupil from 1994 to 2004 by each cost reduction strategy.

Table 15 Health care expenditures per pupil 1994 - 2004 for districts that pursued cost reduction strategies by strategy employed

Strategy	1994	2000	2004	94-00 growth rate	00-04 growth rate	94-04 growth rate
Added new carriers	$435.73	$625.22	$900.45	7.49%	9.55%	8.40%
Increased co-pays for doctor's visits	$459.23	$641.75	$898.57	6.92%	8.78%	7.74%
Increased deductibles	$452.16	$653.56	$938.58	7.65%	9.47%	8.45%
Instituted premium caps (either a % or $ amount)	$436.22	$618.65	$814.71	7.24%	7.12%	7.19%
Changed insurance plans within the same carrier	$436.23	$622.75	$912.97	7.38%	10.04%	8.55%
Instituted a cafeteria plan	$442.11	$653.80	$838.37	8.14%	6.41%	7.37%
Increased co-pays for prescriptions	$451.75	$633.57	$916.30	7.00%	9.66%	8.17%
Reduced or eliminated benefits for certain employees	$467.58	$625.44	$898.39	5.99%	9.48%	7.53%
State Average	$457.99	$643.26	$954.60	7.03%	10.37%	8.50%

The same patterns emerged when examining health care expenditures as a percent of COE. Between 1995 and 2000, districts that chose to add new carriers, increase deductibles, institute a cafeteria plan, and change insurance plans with the same carrier had the fastest growth in their health care expenditures as a percent of COE. Additionally, districts that chose to change insurance plans within the same carrier, increased co-pays for prescriptions, and added new carriers had the highest growth in expenditures as a percent of COE from 2000 to 2004. It does therefore appear that there is a relationship between a district's pursuit of a cost reduction strategy and their average health care expenditures as a percent of COE in 1994 and 2000.

Table 16 Health care expenditures as a percent of COE for districts that pursued cost reduction strategies by strategy employed

Strategy	1994	2000	2004	95-00 growth rate	00-04 growth rate	95-04 growth rate
Added new carriers	8.04%	9.11%	11.63%	2.53%	6.30%	4.19%
Increased co-pays for doctor's visits	7.99%	9.11%	11.33%	2.66%	5.60%	3.96%
Increased deductibles	7.97%	9.13%	11.90%	2.75%	6.85%	4.55%
Instituted premium caps (either a % or $ amount)	8.02%	9.10%	11.38%	2.56%	5.75%	3.96%
Changed insurance plans within the same carrier	7.96%	9.18%	11.84%	2.89%	6.57%	4.51%
Instituted a cafeteria plan	7.71%	9.05%	11.47%	3.26%	6.10%	4.51%
Increased co-pays for prescriptions	7.93%	8.99%	11.63%	2.54%	6.65%	4.35%
Reduced or eliminated benefits for certain employees	8.11%	9.07%	11.51%	2.26%	6.14%	3.97%
State Average	7.97%	9.06%	11.77%	2.60%	6.76%	4.43%

While not all districts experienced higher than average growth in health care expenditures per pupil, recall that on average, districts' health care costs grew almost at the same rate as the annual increases in the minimum per pupil foundation grant. Regardless of whether their expenditures were higher than the state average or that of those districts which chose not to pursue cost reduction strategies, districts may have chosen to pursue strategies to restrain the growth so that a smaller portion of their annual revenue growth was devoted to health care benefits.

The next step was to determine whether or not these strategies proved successful in moderating the growth in health care expenditures for the district. Leveraging the survey results and the MDE Form B data, it was possible to compare the strategies employed with the growth of health care expenditures from 1994 to 2004.

Did health care cost reduction strategies work?

According to the data in tables 15 and 16 below, it does appear that districts which pursued cost reduction strategies did experience slower than average growth in health care expenditures. The survey asked districts whether it had pursued cost reduction strategies since the 2000 school year. Thus, I analyzed the growth rates for health care expenditures per pupil and as a percent of COE from 2000 to 2004. Between 2000 and 2004, the average growth in statewide health care expenditures was 10.37 percent. All but those districts which pursued five cost reduction strategies saw health care expenditures increase more slowly than they did for the state as a whole. Those districts that pursued seven or eight strategies saw the slowest increases in health care expenditures per pupil of those surveyed, growing 30 percent slower than the state average. As a result, sixty one percent of the districts surveyed that indicated they pursued at least one or more cost reduction strategy by 2003 had health care expenditures per pupil that were below the state average. By 2004, the number of districts below the state average had increased to 66 percent of districts.

Table 17 Impact of strategies employed on a District's annual growth in health care expenditures per pupil

# Strategies	# of SD's	2003	2004	2000-2004 growth	2003-2004 growth
0	10	$891.66	$946.30	9.06%	6.13%
1	24	$812.96	$928.90	9.97%	14.26%
2	27	$874.46	$933.62	9.89%	6.77%
3	44	$853.63	$946.93	8.92%	10.93%
4	48	$824.25	$890.29	9.49%	8.01%
5	38	$870.21	$965.72	10.59%	10.98%
6	23	$795.83	$852.95	9.37%	7.18%
7	14	$815.50	$870.26	7.86%	6.71%
8	4	$763.42	$815.80	7.99%	6.86%
State Avg	--	$861.03	$954.60	10.37%	10.87%

While the growth between 2000 and 2004 for responding districts was largely slower than the average growth for the state, the results for the growth between 2003 and 2004 were less conclusive. Again, districts that pursued six or more strategies had significantly slower growth, indicating that there may be a relationship between the number of strategies employed and the growth in expenditures. These districts saw 51 percent slower growth in health care expenditures per pupil between 2003 and 2004. The rest of the data is mixed, with districts that pursued three and five strategies close to the state average, and districts that pursued two and four well below the average.

What is the most interesting is that districts who indicated that they had pursued zero cost reduction strategies had the slowest growth in expenditures between 2003 and 2004 and one of the lower growth rates between 2000 and 2004. Note, however, that the average expenditures for these districts were closer to the state average, while the majority of the districts which chose not to pursue cost reduction strategies (?) had expenditures per pupil that were below the state average in 2003 and 2004.

When analyzing the ten responding districts that indicated they pursued no strategies, I found that nine of the ten districts all experienced stable to rising enrollment and that eight of the ten districts had a foundation grant between $4200 and $6500 at the inception of Proposal A. It therefore appears that these survey results reinforce the earlier analysis on the growth in health care expenditures for rising and declining enrollment districts. Recall that districts with declining enrollment have experienced the most rapid growth in health care expenditures and districts with rising enrollment had the mildest growth. As stated later in the discussion section, a correlation study should be performed to confirm the link.

While it appears that districts were able to restrain the growth in health care expenditures per pupil, their efforts had a less significant impact on growth in health care expenditures as a percent of their COE. Unlike health care expenditures per pupil, the majority of the districts that did pursue a cost reduction strategy after 2000 still had expenditures as a share of their COE that were either at or higher than the state average in both in 2003 and 2004. The exceptions are the districts that pursued eight or more cost reduction strategies; their average expenditures were well below the state average in both 2003 and 2004. One can, however, observe a downward trend when looking at average health care expenditures as a percent of COE for districts that pursued six or more cost reduction strategies.

Further, it does not appear that the strategies were able to effectively restrain the average annual growth, as all but those districts who pursued seven or more strategies experienced growth between 2000 and 2004 that was either at or higher than the statewide average. It does, however, appear that the strategies may have started to restrain growth by the 2003 to 2004 school year. Despite that finding, this is one year of data and should therefore be part of a future study.

Table 18 Impact of strategies employed on a District's annual growth in health care expenditures as a % of COE

# Strategies	# of SD's	2003	2004	2000-2004 growth	2003-2004 growth
0	10	11.06%	11.85%	7.21%	7.14%
1	24	10.63%	11.83%	6.11%	11.29%
2	27	11.14%	11.91%	6.87%	6.91%
3	44	10.96%	11.98%	6.88%	9.31%
4	48	10.83%	11.67%	6.27%	7.76%
5	38	10.94%	11.93%	6.74%	9.05%
6	23	10.42%	11.05%	6.72%	6.05%
7	14	10.58%	11.34%	4.47%	7.18%
8	4	9.91%	10.32%	4.12%	4.14%
State Avg	--	10.74%	11.77%	6.76%	9.59%

Certain cost reduction strategies also appeared to have greater success than others in restraining growth in the share of expenditures devoted to health care. In table 16 below, one can see that districts that instituted premium caps and introduced cafeteria plans experienced the slowest growth in health care expenditures per pupil from 2000 to 2004. Increasing co-pays for doctor visits, instituting premium cap, implementing a cafeteria plan, and reducing or eliminating benefits for certain employees were most successful in restraining the growth in health care expenditures as a percent of COE from 2000 to 2004.

Table 19 Cost reduction strategies' impact on growth in health care expenditures: 2003 to 2004

Strategy	Health/Pupil		Health as % of COE	
	2003	2003-2004 growth	2003	2003-2004 growth
Added new carriers	$821.63	9.59%	10.71%	8.61%
Increased co-pays for doctor's visits	$832.59	7.92%	10.65%	6.08%
Increased deductibles	$853.64	9.95%	10.83%	8.16%
Instituted premium caps (either a % or $ amount)	$814.71	8.16%	10.59%	7.53%
Changed insurance plans within the same carrier	$853.33	9.29%	10.92%	8.34%
Instituted a cafeteria plan	$838.37	7.59%	10.93%	8.81%
Increased co-pays for prescriptions	$839.09	9.20%	11.00%	8.95%
Reduced or eliminated benefits for certain employees	$823.63	9.08%	10.64%	8.13%
Statewide Average	$861.03	10.87%	10.74%	9.59%

The data analysis therefore suggests that districts have had some success in restraining the growth in health care costs. Specifically, it would appear that the more strategies a district employed, the slower the growth in both health care expenditures per pupil and as a percent of COE. This analysis also indicates that the type of strategy employed factored into the districts' overall successes in restraining growth.

CHAPTER 5: DISCUSSION

Through this study I found that employee benefits costs have risen for all Michigan school districts from 1994 to 2004. Of the two primary employee benefit costs, health care rose most dramatically over the nine year period utilized for the study. The pension contribution rate, which determines retirement costs for a district, declined slightly from 1994 to 2004, but did begin to increase dramatically between 2004 and 2006. Health care benefits rose most dramatically during this time period. In contrast, the percent of a district's current operating budget devoted to health care rose 47.7 percent, from 7.97 percent in 1994 to 11.77 percent in 2004. When examining the distribution of health care costs, the data confirm that across the board, health care expenditures increased rather significantly. Growth was most substantial between 2000 and 2004, when health care expenditures per pupil grew an average of 10.37 percent annually and expenditures as a percent of COE grew 6.76 percent. During this same five year time period, the foundation grant grew only 3.84 percent annually. This indicates that districts had to spend almost 3 times the increase in their per pupil revenue to fund rising health care costs.

I also was able to prove that certain districts experienced more significant growth in their health care expenditures than others. Central city, declining enrollment, low-income, and minimally funded districts all had the highest health care expenditures as a percent of COE and per pupil by 2004. These districts also experienced the most

significant benefit cost growth from 1994 to 2004. The data suggests that while Proposal A narrowed the gap in per-pupil operating revenue across Michigan districts, a new inequity arose with the rapid rise in health care costs.

Districts have, however, been able to implement cost reduction strategies to restrain the growth in health care costs. On average, districts that pursued cost reduction strategies did have slower growth in health care expenditures per pupil. Between 2003 and 2004, the average state growth in health care expenditures per pupil, for example, was 10.87 percent. Excepting those that pursued three strategies and five strategies, districts that pursued two or more cost reduction strategies had significantly slower growth from 2003 to 2004. The data further suggests that the more strategies a district pursued, the more they were able to moderate their growth. Districts that pursued six or more strategies had average growth of 6.92 percent as compared to the state average of 10.87 percent. Districts were less successful restraining growth in expenditures as a percent of COE, but again, the more strategies a district employed, the greater their success rate in restraining growth.

The data analysis complements the recent research by the Hay Group and the MSBO. To reiterate the July 2005 Hay Group report, it was "estimated that the total medical care cost for more than 190,000 school district employees and their dependents will be $2.2 billion in the 2005-2006 school year and that dental and vision benefits will likely cost an additional $150 million" (Michigan Education Digest, Fall 2005). While the Hay Study focused on the costs and a proposed plan to reduce costs, it also has been noted that a May 2005 MSBO survey looked at what districts have done to offset these costs. To quote, "The survey found that districts employed different strategies to lower

costs: 73 percent increased their co-pays or deductibles, 70 percent shifted to a lower cost plan and 42 percent instituted or negotiated premium sharing with employees (Michigan Education Digest, Fall 2005).

While the study did prove several of the initial hypotheses correct, there were three findings that were not part of the original hypothesis. Hold harmless districts had the highest health care expenditures per pupil in 2004, and the second highest when pupil weighted. It is possible that there was some pupil erosion in these districts, which could explain the rapid growth in health care expenditures these districts experienced. These districts may also have chosen to spend a greater portion of their budgets on salaries and benefits so as to attract the best teachers and administrators.

I was also surprised that there was not a clear link between a district's health care expenditures per pupil and their propensity to pursue cost reduction strategies. Half of the districts that responded to the survey and indicated they had pursued a cost reduction strategy had averages at or only slightly above the state average expenditures between 1994 and 2000, while the other half were a bit higher than the state average (see tables nine and ten). There are several reasons why a link may not have been evident. First, as stated earlier, districts across the board experienced rapid growth in their health care costs. The growth between 2000 and 2004 outpaced the growth in the foundation grant, causing districts to spend a greater portion of their operating budgets on employee benefits. While their health expenditures may not have differed substantially from districts statewide, districts may have chosen to pursue cost reduction strategies simply to offset the rapid rise in these costs, given the slow growth in their foundation grant. Further, it is possible that the districts implemented some of these strategies prior to 2000

and that they effectively moderated the growth other districts experienced. While the survey did ask them to identify which strategies they had pursued after 2000, districts may have simply indicated all strategies they have employed regardless of the year of implementation.

The most surprising finding was that the districts which pursued no strategies had the slowest growth between 2003 and 2004 in health care expenditures per pupil. Their growth was half that of the state average of 10.87 percent. It is hard to determine from the survey results what caused this result. Only four percent of the respondents (or ten districts) indicated that they pursued no cost reduction strategies. Overall, they had one of the higher growth rates in expenditures per pupil and as a percent of COE from 2000 to 2004, but their annual growth were still around or below the state average. The causation is difficult to determine; thus, this finding should be an area of future research.

There were several issues that could limit the validity of the analysis performed. First, the analysis was from 1994 to 2004 because MDE Form B data was available and complete for that nine year period. Given that the growth seemed to accelerate in 2000, it would be important to add the 2004 to 2006 school year data to the health care analysis to determine if the growth rate has increased.

Second, given that districts with declining enrollment had the greatest increase in health care expenditures, a correlation study should be done to determine if districts in other categories experienced faster growth due to pupil erosion. A correlation study may have pointed to more specific causation as to why certain systematic patterns emerged. It is possible, for example, that districts whose median family income was the lowest also suffered pupil erosion, which was the main reason that they had faster than average

growth in health care costs. This relationship is important as it may indicate that the primary driver in health care costs is pupil enrollment, for example.

Third, the survey, while a representative sample, should be expanded to include more districts. Recall that only ten of the two hundred and forty two respondents indicated they had not pursued any cost reduction strategies; these districts had slow growth. Given these factors, it would be important to get a larger, more representative sample of these districts. Also recall that nine of the ten districts all experienced stable to rising enrollment and that eight of the ten districts had a foundation grant between $4200 and $6500 at the inception of Proposal A. A broader sample may indicate whether or not these districts truly experienced slower growth. This broader sample may also provide a crisper demographic profile of these districts, and indicate why they were able to restrain growth despite pursuing no cost reduction strategies.

A second challenge with the study was that I pre-determined the types of strategies a district might employ for the purposes of conducting an effective survey and the subsequent analysis. The questions posed outlined several potential cost savings strategies such as changing carriers, reducing coverage, or modifying plans for school employees. While an "other" category was also offered, the questions were very specific around these types of strategies, and were focused on health care, rather than retirement or overall expenditures. I decided upon this approach and the options after interviews with two district business managers and the President of the MSBO, Tom White. Further, this approach was necessary as open-ended questions would have made the analysis too subjective; however, it also limited feedback on strategies other than those directly asked about in the survey.

In order to determine if the rising health care costs trend from 1994 to 2004 continues, researchers should continue to monitor these costs over the next five years, from 2005 to 2009. Future research should also look for correlations between the change in a district's health care costs and the change in their enrollment. A correlation study may determine whether the primary cause of rapidly rising health care costs is pupil erosion.

Additionally, research should examine the change in costs for those districts that have and have not pursued cost reduction strategies. It is still a little early to determine whether the cost reduction strategies pursued by the districts in the survey have truly served to restrain costs. Ongoing research will be necessary to determine to what degree a district can restrain the growth in health care costs. Further, it would be interesting to get a better profile on those districts that did not pursue cost reduction strategies. A wider sample may indicate whether these districts really had lower costs and growth than those districts that did pursue cost reduction strategies. Finally, since this study did not focus on retirement cost reduction strategies, future research should identify the retirement cost reduction strategies and track the subsequent results for districts that pursued these strategies. It also would be interesting to determine the cost savings effect of moving to a defined contribution plan for new teachers.

It does appear from this analysis that cost reduction strategies can work to reduce a district's health care burden. Again, however, further research is required to determine if these strategies produce sustainable results. While districts have been able to restrain growth in their health care costs, these costs still grew much faster than did the districts' revenues. I therefore believe that Michigan schools need help to solve this problem in the

long term. A pooled health care system, like the one proposed by the Hay Group, may be the first step toward a sustainable solution. According to the Hay Report, "putting all teachers into a single system would save $86 to $165 in per pupil funding" (Hay Group, 2005). Additionally, due to the recent rapid rise in the pension contribution rate, the state should look at moving to a defined contribution plan for all new district employees. This should substantially reduce retirement costs for Michigan districts. The long term solution for Michigan schools will include a substantial decrease to health care and retirement costs, in addition to a sustainable source of revenue growth. Districts may then have a chance to devote more of their revenue growth toward education and less toward employee benefits.

APPENDIX

Appendix A Enrollment Quintile Data

I divided the districts into 5 quintiles, ranging from declining to rising enrollment.

The enrollment quintiles are as follows:

Quintile 1	Highest Decline	<-1.27%
Quintile 2	Declining	-1.27% < x < -.26%
Quintile 3	Stable	-.26% < x < +.50%
Quintile 4	Increasing	+.52% < x < +1.42%
Quintile 5	Highest Increase	> +1.43%

Table 20 Health care expenditures as a percent of COE in 1995 and 2004 by Enrollment Change

Enrollment growth rate Quintiles	1995 Avg	2004 Avg
Highest Decline	8.22%	12.22%
Declining	8.20%	12.21%
Stable	8.07%	11.90%
Increasing	7.84%	11.49%
Highest Increase	7.48%	10.93%
Statewide	7.97%	11.77%

Table 21 Health care expenditures per pupil 1995 and 2004 by District Enrollment Change

Enrollment growth rate Quintile	1995 Avg	1995 Pupil Weighted Avg	2004 Avg	2004 Pupil Weighted Avg
Highest Decline	$ 482.14	$ 501.52	$1171.37	$1120.67
Declining	$ 439.42	$ 411.80	$ 963.52	$ 971.80
Stable	$ 460.92	$ 496.23	$ 931.84	$ 963.99
Increasing	$ 462.74	$ 481.81	$ 902.61	$ 927.00
Highest Increase	$ 437.91	$ 516.73	$ 830.61	$ 899.29
Statewide	$ 457.99	$ 471.91	$ 960.52	$ 954.60

Appendix B Percent of districts that pursued health care cost reduction strategies

Strategy	% Districts
Added new carriers	42.67%
Increased co-pays for doctor's visits	31.90%
Increased deductibles	53.45%
Instituted premium caps (either a % or $ amount)	39.66%
Changed insurance plans within the same carrier	78.88%
Instituted a cafeteria plan	29.31%
Increased co-pays for prescriptions	79.31%
Reduced or eliminated benefits for certain employees	32.33%

Appendix C MSBO Survey Questions

1. Please enter your 5-digit district code.

2. What health insurance programs are utilized by your district for teachers? Please check all that apply.

MESSA Super Care	MESSA Care Choices
BCBS Traditional	BCBS HMO (e.g., Blue Care Network)
SET SEG	BCBS PPO (e.g., Community Blue)
Self-insured	HMO/PPO other than BCBS
Other, Please Specify	

3. What health insurance programs are utilized by your district for administrators? Please check all that apply.

MESSA Super Care	MESSA Care Choices
BCBS Traditional	BCBS HMO (e.g., Blue Care Network)
SET SEG	BCBS PPO (e.g., Community Blue)
Self-insured	HMO/PPO other than BCBS
Other, Please Specify	

4. What health insurance programs are utilized by your district for support staff? Please check all that apply.

MESSA Super Care	MESSA Care Choices
BCBS Traditional	BCBS HMO (e.g., Blue Care Network)
SET SEG	BCBS PPO (e.g., Community Blue)
Self-insured	HMO/PPO other than BCBS
Other, Please Specify	

5. Has your district added new carriers since 2000?

6. If yes, which carriers have you added? Please check all that apply

MESSA Super Care	MESSA Care Choices
BCBS Traditional	BCBS HMO (e.g., Blue Care Network)
SET SEG	BCBS PPO (e.g., Community Blue)
Self-insured	HMO/PPO other than BCBS

Other, Please Specify

7. Since 2000, has your district:
   Increased co-pays for doctor's visits?
   Increased deductibles?
   Instituted premium caps (either a % or $ amount)?
   Changed insurance plans within the same carrier?
   Instituted a cafeteria plan?
   Increased co-pays for prescriptions?
   Reduced or eliminated benefits for certain employees?

8. Do you solicit bids for insurance in preparation for or as part of contract negotiations?

9. Do you have a current employee (collective bargaining) contract in place?

10. If yes, what is the year of your current collective bargaining agreement?

Appendix D MSBO Survey Respondents

AUTRAIN-ONOTA PUBLIC SCHOOLS
MUNISING PUBLIC SCHOOLS
OTSEGO PUBLIC SCHOOLS
WAYLAND UNION SCHOOLS
FENNVILLE PUBLIC SCHOOLS
HOPKINS PUBLIC SCHOOLS
SAUGATUCK PUBLIC SCHOOLS
HAMILTON COMMUNITY SCHOOLS
ALPENA PUBLIC SCHOOLS
ALBA PUBLIC SCHOOLS
BELLAIRE PUBLIC SCHOOLS
STANDISH-STERLING COMMUNITY S/
HASTINGS AREA SCHOOL DISTRICT
BENZIE COUNTY CENTRAL SCHOOL
BENTON HARBOR AREA SCHOOLS
LAKESHORE SCHOOL DIST (BERRIEN
WATERVLIET SCHOOL DISTRICT
COLDWATER COMMUNITY SCHOOLS
QUINCY COMMUNITY SCHOOL DISTRI
ALBION PUBLIC SCHOOLS
HARPER CREEK COMMUNITY SCHOOLS
LAKEVIEW SCH. DISTRICT (CALHOU
MAR LEE SCHOOL DISTRICT
PENNFIELD SCHOOL DISTRICT
MARCELLUS COMMUNITY SCHOOLS
BOYNE CITY PUBLIC SCHOOLS
BOYNE FALLS PUBLIC SCHOOL DIST
EAST JORDAN PUBLIC SCHOOLS
INLAND LAKES SCHOOLS
SAULT STE. MARIE AREA SCHOOLS
BRIMLEY AREA SCHOOLS
FARWELL AREA SCHOOLS
FOWLER PUBLIC SCHOOLS
ST. JOHNS PUBLIC SCHOOLS
CRAWFORD AUSABLE SCHOOLS
ESCANABA AREA PUBLIC SCHOOLS
GLADSTONE AREA SCHOOLS
RAPID RIVER PUBLIC SCHOOLS
IRON MOUNTAIN PUBLIC SCHOOLS
BREITUNG TOWNSHIP SCHOOLS
NORTH DICKINSON CO. SCHOOLS

BELLEVUE COMMUNITY SCHOOLS
CHARLOTTE PUBLIC SCHOOLS
EATON RAPIDS PUBLIC SCHOOLS
GRAND LEDGE PUBLIC SCHOOLS
OLIVET COMMUNITY SCHOOLS
POTTERVILLE PUBLIC SCHOOLS
PUBLIC SCHOOLS OF PETOSKEY
GRAND BLANC COMMUNITY SCHOOLS
MT. MORRIS CONSOLIDATED SCHOOL
GOODRICH AREA SCHOOLS
CARMAN-AINSWORTH COMM. SCHOOLS
FENTON AREA PUBLIC SCHOOLS
KEARSLEY COMMUNITY SCHOOLS
DAVISON COMMUNITY SCHOOLS
SWARTZ CREEK COMMUNITY SCHOOLS
WESTWOOD HEIGHTS SCHOOLS
BEECHER COMMUNITY SCH. DISTRIC
LAKEVILLE COMMUNITY SCHOOLS
BEAVERTON RURAL SCHOOLS
WATERSMEET TWP SCHOOL DISTRICT
TRAVERSE CITY AREA PUBLIC SCHS
ALMA PUBLIC SCHOOLS
BRECKENRIDGE COMMUNITY SCHOOLS
ST. LOUIS PUBLIC SCHOOLS
CAMDEN-FRONTIER SCHOOLS
HILLSDALE COMMUNITY SCHOOLS
PITTSFORD AREA SCHOOLS
READING COMMUNITY SCHOOLS
HANCOCK PUBLIC SCHOOLS
PUBLIC SCHOOLS OF CALUMET
LAKE LINDEN-HUBBELL SCHOOL DIS
UBLY COMMUNITY SCHOOLS
HOLT PUBLIC SCHOOLS
LESLIE PUBLIC SCHOOLS
MASON PUBLIC SCHOOLS (INGHAM)
WAVERLY COMMUNITY SCHOOLS
WILLIAMSTON COMMUNITY SCHOOLS
IONIA PUBLIC SCHOOLS
LAKEWOOD PUBLIC SCHOOLS
PORTLAND PUBLIC SCHOOL DISTRIC
MT. PLEASANT CITY SCH. DISTRIC
BEAL CITY PUBLIC SCHOOLS
SHEPHERD PUBLIC SCHOOL DISTRIC
WESTERN SCHOOL DISTRICT
VANDERCOOK LAKE PUBLIC SCHOOLS
CONCORD COMMUNITY SCHOOLS
MICHIGAN CENTER SCHOOL DISTRIC

KALAMAZOO PUBLIC SCHOOL DISTRI
CLIMAX-SCOTTS COMMUNITY SCHOOL
GULL LAKE COMMUNITY SCHOOLS
PARCHMENT SCHOOL DISTRICT
PORTAGE PUBLIC SCHOOLS
SCHOOLCRAFT COMMUNITY SCHOOLS
VICKSBURG COMMUNITY SCHOOLS
KALKASKA PUBLIC SCHOOLS
NORTHVIEW PUBLIC SCHOOL DISTRI
WYOMING PUBLIC SCHOOLS
BYRON CENTER PUBLIC SCHOOLS
FOREST HILLS PUBLIC SCHOOLS
KELLOGGSVILLE PUBLIC SCHOOLS
KENOWA HILLS PUBLIC SCHOOLS
LOWELL AREA SCHOOLS
ROCKFORD PUBLIC SCHOOLS
BALDWIN COMMUNITY SCHOOLS
NORTH BRANCH AREA SCHOOLS
LELAND PUBLIC SCHOOL DISTRICT
ADRIAN CITY SCHOOL DISTRICT
BRITTON-MACON AREA SCH. DISTRI
DEERFIELD PUBLIC SCHOOLS
SAND CREEK COMMUNITY SCHOOLS
TECUMSEH PUBLIC SCHOOLS
BRIGHTON AREA SCHOOLS
HARTLAND CONSOLIDATED SCHOOLS
HOWELL PUBLIC SCHOOLS
PINCKNEY COMMUNITY SCHOOLS
EAST DETROIT PUBLIC SCHOOLS
ARMADA AREA SCHOOLS
CLINTONDALE COMMUNITY SCHOOLS
CHIPPEWA VALLEY SCHOOLS
FITZGERALD PUBLIC SCHOOLS
LAKE SHORE PUBLIC SCHS. (MACOM
NEW HAVEN COMMUNITY SCHOOLS
SOUTH LAKE SCHOOLS
UTICA COMMUNITY SCHOOLS
MANISTEE AREA SCHOOLS
N.I.C.E. COMMUNITY SCHOOLS
GWINN AREA COMMUNITY SCHOOLS
MARQUETTE AREA PUBLIC SCHOOLS
ISHPEMING PUBLIC SCHOOL DISTRI
MASON COUNTY CENTRAL SCHOOLS
LUDINGTON AREA SCHOOL DISTRICT
CHIPPEWA HILLS SCHOOL DISTRICT
CARNEY-NADEAU PUBLIC SCHOOLS
BULLOCK CREEK SCHOOL DISTRICT
COLEMAN COMMUNITY SCH. DISTRIC
LAKE CITY AREA SCHOOL DISTRICT

MONROE PUBLIC SCHOOLS
MASON CONSOLID. SCHOOLS
(MONRO
SUMMERFIELD SCHOOL DISTRICT
TRI COUNTY AREA SCHOOLS
LAKEVIEW COMM SCHOOLS
(MONTCAL
CENTRAL MONTCALM PUBLIC
SCHOOL
HILLMAN COMMUNITY SCHOOLS
MONA SHORES PUBLIC SCH. DISTRI
OAKRIDGE PUBLIC SCHOOLS
FRUITPORT COMMUNITY SCHOOLS
HOLTON PUBLIC SCHOOLS
NORTH MUSKEGON PUBLIC SCHOOLS
WHITEHALL SCHOOL DISTRICT
FREMONT PUBLIC SCHOOL DISTRICT
GRANT PUBLIC SCHOOL DISTRICT
WHITE CLOUD PUBLIC SCHOOLS
BIRMINGHAM CITY SCHOOL DISTRIC
SCHOOL DIST. CITY OF ROYAL OAK
SOUTHFIELD PUBLIC SCHOOL DIST.
AVONDALE SCHOOL DISTRICT
BLOOMFIELD HILLS SCHOOL DISTRI
CLARENCEVILLE SCHOOL DISTRICT
TROY SCHOOL DISTRICT
CLARKSTON COMMUNITY SCHOOL
DIS
FARMINGTON PUBLIC SCH. DISTRIC
HOLLY AREA SCHOOL DISTRICT
HURON VALLEY SCHOOLS
ROCHESTER COMMUNITY SCHOOL
DIS
LAMPHERE PUBLIC SCHOOLS
WALLED LAKE CONSOLIDATED S/D
WATERFORD SCHOOL DISTRICT
PENTWATER PUBLIC SCHOOL DISTRI
SHELBY PUBLIC SCHOOLS
WALKERVILLE RURAL COMMUNITY S/
ONTONAGON AREA SCHOOLS
REED CITY AREA PUBLIC SCHOOLS
MIO-AU SABLE SCHOOLS
GRAND HAVEN AREA PUBLIC SCHOOL
ALLENDALE PUBLIC SCHOOL DISTRI
WEST OTTAWA PUBLIC SCHOOL DIST
ONAWAY AREA COMMUNITY SCH. DIS
POSEN CONSOLIDATED SCHOOL DIST
ROGERS CITY AREA SCHOOLS
SAGINAW CITY SCHOOL DISTRICT
CHESANING UNION SCHOOLS
BIRCH RUN AREA SCHOOL DISTRICT
BRIDGEPORT-SPAULDING COMM. S/D

HEMLOCK PUBLIC SCHOOL DISTRICT
MERRILL COMMUNITY SCHOOL DIST.
PORT HURON AREA SCHOOL DISTRIC
ALGONAC COMMUNITY SCHOOL DIST.
MEMPHIS COMMUNITY SCHOOLS
YALE PUBLIC SCHOOLS
STURGIS PUBLIC SCHOOLS
BURR OAK COMMUNITY SCHOOL DIST
CENTREVILLE PUBLIC SCHOOLS
COLON COMMUNITY SCHOOL DISTRIC
BROWN CITY COMMUNITY SCHOOLS
CROSWELL-LEXINGTON COMM. SCHOO
PECK COMMUNITY SCHOOL DISTRICT
MANISTIQUE AREA SCHOOLS
BYRON AREA SCHOOLS
PERRY PUBLIC SCHOOL DISTRICT
OWOSSO PUBLIC SCHOOLS
MILLINGTON COMMUNITY SCHOOLS
REESE PUBLIC SCHOOLS
UNIONVILLE-SEBEWAING AREA S/D
SOUTH HAVEN PUBLIC SCHOOLS
BANGOR PUBLIC SCHS. (VAN BUREN
HARTFORD PUBLIC SCHOOL DISTRIC
MATTAWAN CONSOLIDATED S/D
PAW PAW PUBLIC SCHOOL DISTRICT
DEXTER COMMUNITY SCHOOL DISTRI
LINCOLN CONS. SCHOOL DISTRICT
MANCHESTER COMMUNITY SCHOOLS
MILAN AREA SCHOOLS
SALINE AREA SCHOOLS
DEARBORN HEIGHTS S/D NUMBER 7
MELVINDALE-N. ALLEN PARK SCHOO
GROSSE POINTE PUBLIC SCHOOLS
LINCOLN PARK PUBLIC SCHOOLS
LIVONIA PUBLIC SCHOOLS
PLYMOUTH-CANTON COMMUNITY SCHS
SOUTH REDFORD SCHOOL DISTRICT
TAYLOR SCHOOL DISTRICT
WAYNE-WESTLAND COMMUNITY S/D
WYANDOTTE CITY SCHOOL DISTRICT
FLAT ROCK COMMUNITY SCHOOLS
CRESTWOOD SCHOOL DISTRICT
GIBRALTAR SCHOOL DISTRICT
GROSSE ILE TOWNSHIP SCHOOLS
RIVERVIEW COMMUNITY SCHOOL DIS
SOUTHGATE COMMUNITY SCHOOL DIS
VAN BUREN PUBLIC SCHOOLS
MANTON CONSOLIDATED SCHOOLS

Appendix E School Employees Retirement System Employer Contribution Rates (in millions)

Table 22

Fiscal Year	Covered Wages	Total Rate	Pension Rate	Health Rate
1994-1995	7460.5	14.21%	10.53%	3.68%
1995-1996	7764.9	14.56%	10.88%	3.68%
1996-1997	8043.7	15.17%	11.22%	3.95%
1997-1998	8226.0	11.12%	7.14%	3.98%
1998-1999	8581.5	10.77%	6.73%	4.04%
1999-2000	9138.6	11.66%	7.06%	4.60%
2000-2001	9357.8	12.16%	6.61%	5.55%
2001-2002	9760.8	12.17%	6.12%	6.05%
2002-2003	10022.4	12.99%	6.94%	6.05%
2003-2004	10043.7	12.99%	6.94%	6.05%
2004-2005	10094.4	14.87%	8.32%	6.55%
2005-2006	10397.2	16.34%	9.979%	6.55%
2006-2007	10709.1	17.74%	11.19%	6.55%

Source: Senate Fiscal Agency, State of Michigan

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