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Relationship Between Policy Expectations and Education Outcomes in a Midwestern School District

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Abstract

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Latonya L. Latamore

MS, Walsh College of Accountancy and Business Administration, 2001

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Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Public Administration and Public Policy

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A financially secure public school district can provide children with an educational foundation that will eventually transition them into self-sufficient employed adults. These adults will become tax-paying citizens who will contribute to their local economies. The problem with one midwestern public school district is that a history of financial insecurity has affected the district's ability to provide students with all of the programs to which they are entitled. Using Baumgartner and Jones' conceptualization of punctuated equilibrium as the theoretical foundation, the purpose of this quantitative study was to determine the relationship between aspects of the Local Financial Stability and Choice Act (LFSCA) in 1 state and the educational policy outcomes in 1 affected city. The educational policy outcome variables were student retention, graduation rates, college readiness, student assessments, and the annual budget balance. Secondary data were collected from the Michigan School Data website. Data included the entire school district from the periods of Fiscal Year 2007 through Fiscal Year 2016. Data were analyzed using the non-parametric chi-square test of association. The findings indicated that LFSCA legislation has a statistical association with the graduation rate increasing, student assessment scores decreasing, and college readiness rates decreasing. The effect of the LFSCA legislation was found inconclusive for the student count and the annual budget balance. The implications for positive social change include for legislators to use the findings to create performance outcome measures that provide feedback on public school districts or public institutions.

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Dedication

This dissertation is dedicated to my daughter Lauren. I hope that I inspire you to become the best that you can be and that you know that all of your dreams can come true.

Last but not least, I dedicate this to the public in which I seek a solution to the legislative problems that have been experienced and imposed on the public without any measured foreseeable solutions.

Acknowledgments

I want to acknowledge my Mom and Dad for helping me achieve all of my hearts desires, my brother when I just needed an ear to listen, and Dr. Hacker for patiently helping me by acknowledging that my research idea was a great one.

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Chapter 1: Introduction to the Study

Introduction

Michigan legislators created legislation to develop financial stability within local governments and public school districts throughout the state. The legislation, Public Act 436 of 2012, also known as the Local Financial Stability and Choice Act (LFSCA), went into effect on March 28, 2013. Public Act 436 of 2012 legislation was originally derived from Public Act 101 of 1988, which was amended to Public Act 72 of 1990, which was subsequently amended to Public Act 4 of 2011.

Under these legislative initiatives, various Michigan localities and public school districts have endured the duress of being deemed financially unstable. The localities and public school districts that endured financial instability were provided with financial oversight through an appointment of an emergency manager or a financial advisory board. In 2016, Michigan localities that were designated to require this oversight included Allen Park, Benton Harbor, Detroit, Ecorse, Flint, Hamtramck, Highland Park, Inkster, Lincoln Park, Pontiac, Royal Oak, and the County of Wayne. The city of Detroit was placed under a consent decree and financial emergency during 2013. It filed bankruptcy and had been appointed a financial review commission since 2014 (Michigan Department of Treasury, 2016). The village of Three Oaks was previously declared to be in a financial emergency. Under Public Act 4 of 2011, the village of Three Oaks was removed from receivership when the financial conditions were corrected (Michigan Department of Treasury, 2011).

The Michigan public school districts affected by the LFSCA were Benton Harbor Area Schools, Detroit Public Schools, Highland Park School District, Muskegon Heights School District, and Pontiac Public Schools (Michigan Department of Treasury, 2016). The Inkster Public School District was also previously affected as a result of LFSCA. During 2013, the Inkster Public School District was dissolved due to financial and academic distress. The residents of the city of Inkster have been recently educated in neighboring school districts in nearby municipalities because they no longer have public schools located within the city of Inkster (Wayne RESA, 2013).

In this study, I focused on Michigan Public Act 436 of 2012 (LFSCA) and its effect on the educational outcomes within the Detroit Public School (DPS) District. I conducted this study to determine the extent to which LFSCA and the appointed emergency manager (EM) affected the budget and the education policy outcomes of the school district. Under the LFSCA, the EM was appointed as the financial overseer of the locality or the school district. The LFSCA gave the EM full financial and policymaking authority under the legislation. For purposes of this research, the EM is discussed as it relates to the LFSCA legislation but the effect that I focused on was on the actual legislation and not the EM directly. This research should potentially lead to additional research or discussions of how to properly implement political appointments that may benefit the public educational sector that requires financial management.

My study should segue into conversations among elected legislative and gubernatorial officials as well as those requiring political appointments for public school districts under the LFSCA legislation to possess not only specialization in financial

management background but a background of educational administration or policy. This would help to provide the proper appointee with the knowledge to lead a school district that has endured academic challenges just as much as the financial challenges.

Future legislation as a result of this study may also include performance outcome measurements to ensure that educational policy outcomes, as well as financial security goals, are developed before political appointments of EMs. There will hopefully be performance outcome monitoring to ensure that these goals have been met under the political appointment of the EM. This study may also encourage the public, as the primary stakeholders being directly affected, to develop realistic expectations for elected officials that impose the legislation on the community directly affected. Performance outcome results will require accountability of elected officials and can also assist the democratic process. Public school districts are funded by public revenue sources but do not operate equivalently as a local municipality. The primary focus of Public Act 436 of 2012 was to provide a local government or public school district with a financially stable atmosphere. The legislation appeared to fail to show social responsibility toward the local constituents, whether it was toward the general public or students enrolled in the public school districts, because no performance outcomes were developed to measure progress.

The LFSCA legislation was imposed on Detroit Public Schools (DPS) since March 2009 (Michigan Department of Treasury, 2016). A hostile takeover, or the State of Michigan appointment of an EM of public school districts, did not necessarily equate to success, and that success was not defined through the literature. The data should

hopefully indicate whether the policies that had been implemented had a statistically significant relationship with the budget, student retention, standardized assessment scores, graduation rates, and college readiness. The research should also indicate the relevance and significance to public administration and public policy by discussing what potential measures should have been taken when approached with a financial emergency within a public school district versus that of a local governmental entity.

I conducted a quantitative χ^2 analysis. In my analysis, I measured whether a statistical association existed between the LFSCA as the independent variable and the dependent variables of student assessments, college readiness, graduation rate, student retention, and budget balance. I analyzed variables for a period of 10 consecutive years from Fiscal Year 2007 through Fiscal Year 2016. The analysis showed whether there had been a change since the legislation was imposed on DPS. The legislation allowed the EM to implement policies throughout the public school district.

The theoretical foundation of punctuated equilibrium theory was used for this research and how it related to the foundation of this research that I conducted. Researchers use punctuated equilibrium theory to explain the observation of political processes that are normally described by stability and incrementalism, but intermittently produced significant movements from the past (True, Jones, & Baumgartner, 2006). I used a χ^2 analysis to focus on an associated relationship that I selected. The data that I analyzed was collected from Wayne RESA through Michigan School Data, DPS, and the Michigan Department of Education. Wayne RESA was the regional educational service agency that provided a broad spectrum of services and supported Wayne County's 33

school districts (Wayne RESA, 2016). The information from Wayne RESA was publicly accessible online. Some of the information was not raw data but aggregate nonparametric data and provided an overview of some basic statistics that were required for public disclosure. The Michigan Department of Education provided information to the public through Michigan School Data, which was publicly accessible online. DPS primarily received all data throughout the district, compiled the data, and forwarded all of the data to the Michigan Department of Education.

Background

In March 2009, Michigan legislators imposed the LFSCA legislation on DPS and appointed an EM (Review Team Report, 2008). According to Michigan School Data (2016), in Fiscal Year 2009, DPS had an all-fund deficit of $147,890,889. The all-fund deficit was mainly a result of the general fund having a deficit of $218,969,421. DPS budget deficit problems began in Fiscal Year 2008, in which the school district experienced an all-fund deficit of $68,390,160 and a general fund deficit of $139,724,751. The battle with balancing the budget deficit had been severe. The budget affected the services that were offered to not only the students but to the community in which it served. There had also been problems with maintaining staff because of inconsistent payroll dates, as well as providing the required school supplies for teaching. I conducted this study to determine whether those glitches in the process and appointment of an EM affected the school district.

The LFSCA legislation had been revised on several occasions to either meet the needs of the State of Michigan or the localities, or only to implement new components to

enhance the legislation. The original legislation was the Local Government Fiscal Responsibility Act, also known as Act 101 of 1988. Act 101 of 1988 was repealed by Act 72 of 1990, which became effective on May 15, 1990. Act 72 of 1990 was originally repealed by Act 4 of 2011 and was effective on March 16, 2011. Act 4 of 2011 was voted on by Michigan voters, in which the legislation was rejected by 52.67% of the voters (Michigan Secretary of State, 2012). Since the Act 4 of 2011 was removed from the legislative books, Governor Rick Snyder created the new legislation entitled the Local Financial Stability and Choice Act, also known as Act 436 of 2012, which became effective on March 28, 2013 (Michigan Legislature, 2012).

The literature showed several instances in which states would oversee either a locality or a school district. Rogers (2012) discussed an event in which the State of Missouri took over a public school district in St. Louis. In that situation, the elected school board was replaced by an appointed school board. According to Rogers, the elected school board still existed but maintained limited power. Rogers also mentioned other urban public school districts that had fallen into oversight by either state or local governments. The public school districts that Rogers mentioned were Baltimore, Boston, Cleveland, Detroit, New York, and Philadelphia. Oversight of these public school districts occurred due to the No Child Left Behind legislation because of the educational governance when the policy authorized states to take over local school districts that failed to meet high standards (Rogers, 2012).

In 1999, Governor John Engler imposed Public Act 10 of 1999 on DPS. Public Act 10 of 1999 was an act to amend Public Act 451 of 1976, which was an act to appoint

school reform boards for low-performing school districts (Michigan Legislature, 1999). The difference between the Public Act 10 legislation versus the LFSCA was that it was intended for public school districts only and focused on performance outcomes of the schools in which a school reform board had been appointed. The measurements reviewed under Public Act 10 were standardized test scores of students, dropout rates, daily attendance, enrollment, high school completion, changes in course offerings, and the proportion of school district resources devoted to direct educational services (Michigan Legislature, 1999). The LFSCA legislation did not include any measureable outcomes.

The present gap in knowledge is the lack of research that has been conducted to determine the effect of financial emergency management on either localities or public school districts. Furthermore, with the lack of performance measurement outcomes that was not detailed in the LFSCA legislation, the focus was not placed on the student performance outcomes of the Detroit Public School District. The reviewed literature discussed determination of a locality facing financial distress (Kloha, Weissert, & Kleine, 2005). The literature also discussed an evaluation of state policies in a takeover of local governments (Berman, 1995). There is, however, literature that discusses the regime theory and its effectson poorly performing schools in Newark, New Jersey (Burns, 2003).

In this study, address how the LFSCA has affected education policy within the Detroit Public School District. This portion of the study was necessary to determine whether the budget deficits were decreasing within DPS because the deficit was why the legislation was imposed on the school district. I also analyzed whether the changes that had been made regarding education policy affected standardized test scores, college

readiness, graduation rate, and enrollment. The information was needed because the residents had lost full democratic control of the decisions that were being made within the school district. My study was also necessary because the data required analyzing to determine whether a relationship existed between the legislation and performance outcomes of the school district.

Problem Statement

In this study, I addressed the knowledge gap related to the effect of the LFSCA legislation that had been imposed on DPS. The literature currently available regarding hostile takeovers has not considered the aftermath of hostile takeovers. There was no literature present on how the hostile takeover of schools, whether it occurred due to academic failures or budget deficits, affected graduation rates, standardized assessment scores, college readiness, student enrollment, or the budget deficit. In previous research, the takeovers of public school districts, whether conducted by the locality or the state, was done on the basis of only academic failures and not financial distress (Rogers, 2012). The legislative policies that had been imposed by political appointees, had resulted in the changes of the development and implementation of organizational policies, but the policy changes had not been measured. Outcomes in hostile school takeovers have not been measured nationally.

My study was also needed to analyze uncorrelated data and consider reviewing policies that either eliminate or limit local school management. According to Barkman (2000), a logic model is needed to measure outcomes. As data are gathered, it could be used to help improve programs and services. The results of analyzed data could be used

to hold policymaking appointees accountable and to determine whether budget balances are increasing or decreasing. Analyzed data could be used to gain valuable information to use in decision making and long range planning. Data could also be used to focus on programs that would make a significant difference for participants and to determine cost-effectiveness.

According to data retrieved from Review Team Report (2008), DPS had a deficit since Fiscal Year 1999 and the student enrollment decreased from 168,213 students in Fiscal Year 1999 to 119,113 students in Fiscal Year 2007. In December 2008, Governor Jennifer Granholm declared DPS financially distressed and had begun the process of appointing an EM. In March 2009, an EM was appointed. At that time, the EM removed the school board-appointed superintendent and removed financial powers from the publicly elected school board. The EM made all policy decisions for the DPS district. According to the Review Team Report (2008), instructional matters, student performance, graduation rates, and similar educational policies would not fall under the EM's authority. The only focus was that of financial concerns.

The educational policy changes that had been enforced were not democratically agreed upon by the public, and there had not been any public disclosed evaluations of the outcomes of the policies, as it related to the educational policy directives that had been mandated and forced on the DPS district. Hence, in the election of November 2012, the constituents voted against what was known as the Emergency Manager Law (Michigan Secretary of State, 2016). The public voted to remove the legislation from the legislative

books. The legislation was removed and replaced by Governor Rick Snyder in March 2013.

The problem that I presented in this study was that the legislation was imposed on DPS for concerns of financial distress. Student enrollment continued to decrease as stated in the Review Team Report (2008). According to Wayne RESA (2016), the overall fund deficit had not been eliminated. Student enrollment affected the budget; DPS was funded by the number of students that were enrolled in the district. If student enrollment was constantly decreasing, then the general fund balance would decrease on an annual basis.

Purpose of the Study

I conducted this study to determine whether the financial distress tactics through the appointment of an EM affected the education policy outcomes of the school district. The financial decisions that were imposed on DPS had to affect DPS educational policy. As stated in the Review Team Report (2008), there were other nonfinancial considerations that had been affected within the school district, which included high turnover in upper management positions, inadequate school safety, and low educational performance. As stated in the report, "Given the foregoing, any pronounced, long-term improvement in the financial condition of the School District will be inextricably dependent upon improvement of these non-financial considerations as well" (Review Team Report, 2008, p. 8).

I analyzed a period of 10 fiscal years from 2007 through 2016, in which the study design was a pretest-posttest. However, this was not a longitudinal study because time

was not measured as an independent variable but time was analyzed on a pretest–posttest basis. This time span represented 2 years before the LFSCA was imposed, 1 year during the initial imposure and 7 years after the legislation was imposed on the DPS District. The dependent variables that I analyzed were student graduation rates, student population, standardized test scores, college readiness, and the annual budget variances. The results of the study may provide insight into the independent variable of the LFSCA through the educational policy initiatives that had been imposed and its effect on the outcomes that had been obtained during the 10 years of analysis. To explain the robust change, I used the punctuated equilibrium theory, which defines the action of implementing legislation in this manner to create a drastic change due to the monitoring and maintenance of the budgets of Michigan cities and Michigan public school districts being stagnant for a long period. The social change aspect of the study was to use a logic model for evaluation of implemented policies. The logic model would assist in defining and developing anticipated outcomes of the implemented policies.

In this study, I determined what had been implemented or worked, or whether any improvement occurred in the dependent variables that I selected. The dependent variables were student graduation rates, standardized test scores, student population, and budget variances. The study was quantitative in nature, in which I used a simple pre-experimental pretest-posttest designed study to determine whether an association existed between the implementation of the independent variable (Public Act 4 of 2011; Public Act 436 of 2012) and whether the legislation affected the classified dependent variables

of DPS' graduation rates, standardized test scores, college readiness, student population, and budget variances.

The determination of how many years I would analyze was based on the principle of a longitudinal study. A longitudinal study is an observational research method in which data are gathered for the same variables or subjects repeatedly within a specified period. The study can be extended for a specified period, such as years or even decades. The same individuals are observed during the study period (Sampson, 2011). Sampson (2011) conducted a longitudinal study, in which it was found that few school districts had student success when their demographics were high poverty and diversity. The demand for higher accountability in student performance increased because of adequate yearly progress at the federal level and mandated testing at the state level to meet federal requirements under No Child Left Behind legislation. School district leaders understood the district's student achievement data and used that data if they were to stand any chance for school improvement despite an increase in student demographics of increased poverty and higher diversity.

Another area of focus in my study was the use of the theory of punctuated equilibrium in which the process of the most inundated policies that were being implemented, not only throughout DPS but the legislation, had been the root of the change. According to True et al. (2006), punctuated equilibrium theory helps explain a simple observation of political processes that were generally characterized by stability and incrementalism, but occasionally they produced large-scale departures from the past. I had an opportunity to analyze data within a period to substantiate whether legislation

had an association, if any, with the educational policy outcomes. The outcomes may not have been readily apparent but may have taken time to represent the change as a result of the imposed legislation. Punctuated equilibrium for political science is comparable to natural science in which it seems as if species hardly evolved for most of their existence known as "the equilibrium" but suddenly went through rapid bursts of evolutionary changes that they called punctuation periods. Punctuated equilibrium explains this rapid burst that occurred throughout publicly funded budgets throughout the United States. Breunig and Koski (2006) stated that budget categories are interdependent, generally punctuated, but to varying degrees. There is considerable stability indicated by tall peaks and punctuations represented by wide tails that are a central feature of policy outcomes in the American states. This means that there are long periods of constancy without visual or measureable change, which lead to an immediate or noticeable visual or measureable change. The result confirmed the logic of punctuated equilibrium theory but raised future questions about the effects that specific variations in institutional costs have on policymaking across the 50 states.

Research Questions and Hypotheses

The primary research question was: To what extent had the LFSCA and the appointed EM affected the budget and the education policy outcomes of the school district? I analyzed pretest-posttest results of the educational policy outcomes of the school district. Sub-questions and hypotheses were as follows:

1. Was there a statistical association between the LFSCA and graduation rates?

H_1 = Graduation rates were statistically associated with the LFSCA.

H_{01} = Graduation rates were not statistically associated with the LFSCA.

2. Was there a statistical association between the LFSCA and standardized test scores?

   H_2 = Standardized test scores were statistically associated with the LFSCA.

   H_{02} = Standardized test scores were not statistically associated with the LFSCA.

3. Was there a statistical association between the LFSCA and student retention (enrollment)?

   H_3 = Student population was statistically associated with the LFSCA.

   H_{03} = Student population was not statistically associated with the LFSCA.

4. Was there a statistical association between the LFSCA and budget variances?

   H_4 = Budgetary variances were statistically associated with the LFSCA.

   H_{04} = Budgetary variances were not statistically associated with the LFSCA.

5. Was there a statistical association between the LFSCA and college readiness?

   H_5 = College readiness was statistically associated with the LFSCA.

   $H_{5\ Null}$ = College readiness was not statistically associated with the LFSCA.

Variables

I analyzed the outcomes of five dependent variables and one independent variable. The dependent and independent variables that I analyzed are listed below.

Dependent Variables

The following terms are the dependent variables:

- Graduation rates.
- Standardized test scores.
- Student population.
- Budget variances.
- College readiness.

Independent Variable

The LFSCA was the independent variable in this study.

Theoretical Framework for the Study

The theoretical basis of this study is derived from punctuated equilibrium theory. Punctuated equilibrium theory helps explain a simple observation of political processes that are generally characterized by stability and incrementalism, but occasionally they produce large-scale departures from the past (True et al., 2006). The problem that I addressed in this study was to assess whether the appointed EM under the LFSCA legislation not only affected the budget, in which was the reason why an appointment had been made, but also to verify whether the education policy changes that had been implemented had affected the graduation rates, standardized test scores, college readiness, and/or the student population. Punctuated equilibrium theory was

complementary for this research due to the extenuating time of the legislation and its continuous imposition on the district. The theory was related to its longevity and the slow process or stasis of change.

I reviewed the data of graduation rates, standardized test scores, college readiness, and student population for 10 years, 2 years prior, 1 year in which the EM was appointed to the school district, and 7 years after the appointment of the EM. According to Sampson (2011), the benefit of a longitudinal study was that the analysis showed stability within a specified period. If there were any increases or decreases, they were not an aberration for only a 1-year period. Instead of researching an equal amount of years before and after the appointment of the EM, I analyzed data that were available after the implementation of the legislation within the DPS District.

Since the LFSCA legislation had been enforced and implemented throughout the State of Michigan, it had affected educational policies throughout the public school districts that had been deemed financially insolvent. LFSCA legislation could be best explained by Givel (2010) and the punctuated equilibrium theory as there seemed to be a period in political science when evolution was nonexistent and then there was an abrupt period when there was constant change. According to Jordan (2003), cities were sensitive to the policies at the federal and state levels as reflected in the increase or decrease of state or federal funds via grants. Financial changes may have significantly affected how public institutions were operating.

I further discuss the theory of punctuated equilibrium in Chapter 2. However, in general, punctuated equilibrium indicates that a change may not seem obvious during the

initial change but throughout time, there is noticeable change. The challenge presented by the use of punctuated equilibrium theory was that when changes occur suddenly within the political world, few researchers have examined the effects of those changes until years later; the effects of the policy changes may have caused severe and detrimental problems to society.

According to Jones and Baumgartner (2012), there is a standard or the "elections matter" model of policy change based on election results (p. 5). Policymaker preferences change when constituents elect new policymakers. The effect of drastic policy changes that occurred in the State of Michigan were implemented without the research being conducted to substantiate the beneficial evidence of the policies that had been placed on the Michigan localities or public school districts. The legislation was still enforced and affected other variables such as student graduation rate, student retention (population), standardized test scores, college readiness, and the budget deficit within the public school district.

Nature of the Study

The nature of this study was quantitative, and I used a pre-experimental pretest-posttest design for data analysis. According to Rudestam and Newton (2007), to a significant extent, the concept of quantitatively studying human beings results from an admiration that social scientists have had with the natural sciences. Quantitative analysis was developed from the ability to understand nature by segregating incidents, investigating them, and creating mathematical principles to describe the theoretical

relationship in nature. Current research in the social sciences is steeped in the empirical and quantitative traditions.

Kerlinger (1997) concentrated on an inferential method when describing statistics as the principle and the process of evaluating quantitative data received from the examples of tests that were conducted to research and associate sources of modification of the outcomes that helped make decisions to accept or reject hypothesized relations between the phenomena, and to aid in making trustworthy interpretations from the results of experiments. This is the kind of research that had also been called *ex post facto* research. The ex post facto methodical experimental approach occurs when the researcher does not engage in a trial run or unsystematic project of subjects to conditions because events have already occurred or they were inherently not capable of being manipulated (Kerlinger and Lee, 1999). So-called causal statements become correlation statements in quasi-experimental research, although it is often possible to infer a sequence of events in causal form. One reason why it was crucial to have a theoretical model as a foundation for an empirical study was because the model itself helped to inform with the assistance of meaningfully interpreting the results of the study.

As I conducted an overview of the variable(s), relationships seemed obvious. The relationship was not as direct as it had seemed. There were other undisclosed reasons that affected the variables being tested. An assumption of the variables' relationships should not have been made until the association between variables were tested and were proven to be statistically significant.

Using a χ^2 analysis is a method used to determine whether the variables had an association with one another. I conducted a χ^2 analysis to determine whether there was a statistical association between the LFSCA and the dependent variables. Statistical methods based on linear guidelines among variables help when studying social data that are constant with the method used. Most social scientists theorize and explain these relationships according to the outcome of the statistical analysis (Knoke, Bohrnstedt, & Mee, 2002).

The types and sources of information and/or data that I gathered for the study were secondary data from the DPS District. This included data from the Michigan Department of Education, as well as legislative information from the State of Michigan pertaining to the LFSCA legislation and Public Act 10 of 1999. The types of information that I used were from the DPS. Data included graduation rates, standardized test scores, college readiness, student population, and budgetary variations. The LFSCA legislation was the independent variable, whereas the dependent variables were the student graduation rates, standardized test scores, college readiness, student population, and fiscal year budget variances.

Definitions

Definitions for terminology used throughout the study included the following:

ACT college readiness: The college admissions examination that measures the proficiency of high school students in English, mathematics, reading, and science (Michigan School Data).

Assumptions: Occurrences within a research study that are beyond control but add to the relevance of the study.

Budget: The annual funding that is awarded for a fiscal year (Michigan School Data).

Delimitations: Properties within a study that provides the constraints of the scope and defines the restrictions.

Emergency manager: The individual who is a political appointee of the governor of Michigan selected to oversee local governments or public school districts (Michigan Public Act 4 of 2011).

Fiscal year: The financial year, which begins on July 1 and ends on June 30 of the following year (Michigan School Data).

Limitations: Foreseen weaknesses within a research study that are beyond the control of the researcher.

Local Financial Stability and Choice Act: The terminology used to describe Public Act 4 of 2011 and Public Act 436 of 2012 (Michigan Public Act 436 of 2012).

Longitudinal study: An observational research method in which data is gathered for the same subjects repeatedly within a specified period. The data observation takes place in the course of years or even decades (Sampson, 2011).

Punctuated equilibrium theory: Political processes that are generally characterized by stability and incrementalism, but occasionally produce large-scale departures from the past (True et al., 2006)

Scope: Parameters that design how the study will operate, to include what will or will not be included in the range of the study.

Student graduation rate: The percentage of students who have graduated high school and completed all district requirements (Michigan School Data).

Student retention (*population*): The number of students who are enrolled in the school district (Michigan School Data).

Standardized test scores: The scores of the tests that are required for the students enrolled in Michigan's public school districts (Michigan School Data).

Assumptions

My study is based on the LFSCA being independent of graduation rates, student retention, budget variances, student assessments, and college readiness. However, the relationship between the dependent variables could be based on other unknown factors that would not be researched during this study.

I assumed that with student enrollment decreasing, the budget variance was negatively affected. I assumed that student enrollment decreased because DPS academic performance was not comparable to other schools in nearby districts due to less funding or budget deficits. My assumption also incorporated that each of these dependent variables had an effect on each other and may have had a negative relationship. I assumed that the academic or college readiness assessments were provided in English and if there were students that were not fully sufficient in the English language, that the assessments were available in their native language. I assumed that the educators within the DPS District were professionally trained individuals in their area of expertise.

The following were propositions based on the assumptions of the related variables:

P_1: The longer the LFSCA was enforced in the DPS District, the more the budget deficit would increase.

P_2: The longer the LFSCA was enforced in the DPS District, the more the student population would decrease.

P_3: The longer the LFSCA was enforced in the DPS District, the less students would be prepared for college.

P_4: The longer the LFSCA was enforced in the DPS District, the more the standardized test scores would decrease.

P_5: The longer the LFSCA was enforced in the DPS District, the more the graduation rates would decrease.

Scope and Delimitations

To determine whether or not the LFSCA was deemed conducive, I provided a reasonable study to measure the legislation's effectiveness on the dependent variables student graduation rates, retention, standardized test scores, college readiness and the budget variances. My study would however provide some insight as to whether the legislation had a positive or negative effect on educational policy and its measureable outcomes. I used Public Act 10 of 1999 legislation to determine the performance outcomes that was originally developed to measure the success of the governor appointees for public school districts that were deemed unsuccessful. The most recent LFSCA legislation lacked performance measurement outcomes.

A pretest-posttest χ^2 analysis was conducted to determine if there was a statistical association between the LFSCA legislation, annual school district budget and the educational outcomes. I reviewed data for student graduation rates, student population, standardized test scores, college readiness and budget variances for fiscal year 2007 through 2016. I focused on the LFSCA legislation because due to the authority given to the EM through the legislation, the EM was allowed to implement policy changes affecting the school district. My research determines if there is a relationship between the legislation (independent variable) and the imposed policy changes and the dependent variables. My study evaluates the outcomes of the imposed policy changes with respect to the dependent variables. The relevance of the information discovered from the analysis of the data could affect future studies. For example, if the student population decreased dramatically, potential funding that would be received from the federal government could be affected, which would negatively influence the budget for specialized programs that the school district qualified for in the previous years. Also, if graduation rates declined, the imposed educational policy changes would adversely affect the school district. The LFSCA was imposed due to the financial distress of the DPS district but the educational policy changes were not deemed necessary. I selected the dependent variables to determine the validity of the legislation and its effect on educational policy.

The boundaries of the data selected within this study was limited to the analysis of the data for student graduation rates, student population, standardized test scores, college readiness and budget variances for all schools associated with students that were enrolled

in the Detroit Public School District, in the State of Michigan. The data gathered was secondary data that was extracted from the Detroit Public School District, State of Michigan and Michigan School Data. The data covered a ten (10) year time period from fiscal year 2007 through 2016.

The samples that were selected for the study would be primarily from the 12th grade class of senior high school students for the dependent variable student graduation rates. The standardized test scores and student population would be taken from the entire school district. The annual budget variances would be taken from the entire school district.

Limitations

There were limitations that prevented the study from being perfect. Some limitations and weaknesses of using a quantitative methodology in order to conduct research included improper representation of the target population. Limitations due to misrepresentation of target population did not apply to my study because all data for the population were used and did not include samples. The weakness or limitation that affected my study was due to a lack of resources. In my study specifically, only aggregate non-parametric data were made available. I was unable to control the testing environment, which produced the variables that were analyzed. There were limited outcomes in quantitative research. A difficulty in data analysis existed due to the non-statistical background of the researcher. Extra resources were ambiguous and could have assisted in an additional analysis of the data. The LFSCA legislation allowed the EM to enact districtwide policies which may have had an effect on the educational outcomes.

These unknown and internal policies were not available unless a FOIA was implemented but could potentially lead to additional research in the future.

There are schools classified as DPS but have been approved by the governor of the State of Michigan to operate as a charter organization under the Educational Achievement Authority (EAA). The EAAs were implemented in 2012 (Education Achievement Authority, 2012). There was a deviation in the analysis of the data but any variances were properly noted in the results of the quantitative analysis and prior to the analysis being conducted. Some standardized test score analysis data have been skewed based on the difference in the curriculum provided between the standard DPS and the DPS EAA classified schools. A notation of when the LFSCA legislation was implemented and was denoted to determine if there was a shift in data prior to the implementation and afterwards.

The primary limitation of the methodology and analysis using χ^2 was that the data was aggregate and non-parametric. Unfortunately, the data was not retrieved as raw. Scores for the assessments were predetermined as pass or fail, meaning that either the students had either met or not met the requirements of the State of Michigan. Also, another limitation of the χ^2 analysis was that it did not prove causality but showed whether there was statistical significance between the independent and dependent variables. This would suffice for the more recent research but for future research using raw data to show causality would provide a more rigorous approach to analyzing the relationship between the independent and dependent variables.

Significance

My study is significant because it will fill the gap of analyzing several potential outcomes of the LFSCA legislation. Upon completion of this study, it should exemplify the importance of evaluating and measuring legislative outcomes within the State of Michigan. At this point, legislation that was implemented was determined for the benefit of the constituents but there were no effective measures that were published for public reassurance. My study will be made public and easily accessible to those who are interested in reviewing the study.

In the future, hopefully my study will be the commence requiring legislators who impose legislation such as this LFSCA legislation, to report the data and outcomes of policy changes that affect the public. Legislators who impose legislative changes should have accountable reporting requirements, in which all outcomes should be readily accessible to the public. Unfortunately, the information can be so construed that it may be difficult to conduct research and analyze data to determine whether legislation is deemed viable or is a solution to a problem. The media will conduct some research but media research is not always reliable because it is not scholarly research. The main priority of social change with my research is holding elected officials accountable for their actions. My study will help to enforce accountability of elected officials and will require publishing legitimate outcomes as a result of the legislative agendas.

Summary

In summary, my study analyzed several outcomes of educational policy within the State of Michigan DPS district that were imposed under the LFSCA legislation. I

conducted a quantitative X^2 analysis was conducted for a review period of 10 years from fiscal years 2007 through 2016. I reviewed the dependent variables for student graduation rates from high school, as well as student population, standardized test scores, college readiness and budget variances from the entire DPS district. The significance of my study added value to the field of public policy by suggesting that imposed legislation will provide a logic model that would ensure evaluation of outcomes and disclose the results to the public. In order to ensure that this occurred, the literature review in Chapter 2 discussed several key pieces of research, which covered the theoretical foundation of this study, punctuated equilibrium theory. In Chapter 2, I also discussed hostile takeovers of public school districts. This information provided additional information as it pertained to my study. Through this study, I will close the gap in the literature, but provide policy makers with important information that will serve as the predecessor for additional research.

Chapter 2: Literature Review

Introduction

Michigan's LFSCA legislation affected several local governments and public school districts in the state. The effects that the LFSCA legislation has had on education policy within the DPS, resulting in policy changes, were not shown as effective within the 8 to 10 years reviewed. DPS had been in a state of financial emergency since March 2009. In the subsequent 6 years, different policies and procedures were implemented under the appointed EM through the LFSCA legislation. These policies and procedures were enacted by the EM to assist with managing the school district's budget, as well as reducing potential unnecessary expenses to ensure that the budget deficit was reduced. While implementing these changes, neither the EM nor the Michigan governor publicly addressed the outcomes of the effects of these changes in policies and procedures on education policy, and direct publicly published raw data on the performance outcomes were not available. Data were collected annually on the number of students enrolled in the district, graduation rates of the students, college readiness of the students, and the standardized assessment scores of the students. In this study, I analyzed the budget deficit and determined whether the legislation affected the education policy of the DPS district by analyzing whether there was an increase or decrease in the variables being tested. The increase or decrease of the dependent variables determined whether the legislation had been effective.

The literature that I researched for this dissertation was background information on Public Act 436 of 2012, the LFSCA, which went into effect on March 28, 2013. I also

conducted research on local governments or public school districts that had been taken over either other by state/local governments. There was research reviewed pertaining to urban budgetary expenditures or school systems that required process or policy improvements. I conducted a substantial review of punctuated equilibrium theory research to discuss the origin of the theory and its transferring relation from physical science to social science, while researching its effects on budgets and bureaucracy. In the literature review, I discuss public policies, the reasoning behind policies, and alternatives to policies.

Literature Search Strategy

In this chapter, I discuss a historical review of the theoretical foundation for the research that I conducted. I detail the conceptual framework for this research to provide background information about the legislation and its history, along with an overall reasoning of the variables that I selected for review. The library databases and search engines that I used were Walden University Library, Fairfax County Public Library, and George Mason University Library; websites for the State of Michigan's Department of Treasury and Department of Education; and Yahoo and Google Scholar search engines.

I used several key search terms and combinations to determine which articles or studies to include in my research. The key terms used in the search were as follows: *hostile takeovers of public schools*; *hostile takeovers of local governments*; *punctuated equilibrium theory*; *budget deficits in public schools*; *fiscal crises in public schools*; *financial crises in public schools*; *fiscal crises in local governments*; *financial crises in local governments*; *origin of punctuated equilibrium theory*; *punctuated equilibrium*;

public school process improvement; *emergency management of public schools*; *state monitoring of local governments*; *effects of public school takeovers*; *state monitoring of public schools*; *effects of local government takeovers*; *declining population in public schools*; *marketing urban education*; *urban school politics after Brown*; *quantitative research in education*; χ^2 *analysis in education, agendas, alternatives, and public policies*; and *student enrollment in public school districts.*

The literature review is divided into several topics published from 1995 to 2013. The scope of the search that I conducted was in the area of school takeovers, punctuated equilibrium theory and its origin, punctuated equilibrium theory and budgets, public policies, agendas, and alternatives, quantitative method focusing on χ^2 analysis, and variable research, which includes budget deficits, standardized assessments, graduation rates, and student population. The seminal literature found in most of punctuated equilibrium theory literature cited Jones (2012); Breunig and Koski (2006); True et al. (2006); and Charles Darwin [1859] (2004). Baumgartner and Jones (2009) collaborated on numerous peer reviewed literature on punctuated equilibrium theory, which ranged from the theory being defined to its origin, as well as its explanation of budget deficits and policy effect and analysis.

The LFSCA legislation is referred to in Michigan as the "Emergency Management Legislation" and the appointed official is referred to as the EM. A definition is provided for context to clarify a common misunderstanding with the terminology emergency management. Most tend to mistake an *emergency management* as involving natural and human-made disasters. The emergency management that is

referred to during a natural and human-made disaster is not the same as the LFSCA legislation. Kapuchu (2013) stated that emergency and crisis events are described by several elements that may deter or inhibit an operational response for handling frustrating problems faced in such situations. First, during a crisis EMs are exposed to conditions that create doubt in roles and responsibilities, relative knowledge, or situational consciousness. Second, EMs are stressed for time and it is essential that they respond and react rapidly due to the strictness and status of the emergency situation. The shattering consequences of disasters and crises such as fatalities, destruction to people and property, and so forth make it vital to prepare for, respond to, and recuperate from disasters in the most operative and appropriate manner.

There is not a lot of research that exists in relation to a state taking over a public school system due to budget deficits, but research is available for public school takeovers based on low academic achievement of the student population. Under the LFSCA through the EM, the takeover is overseen by the local municipality and not the state due to the structure of local and state governments. DPS is an independent entity and separate from the city of Detroit municipality.

Doyle and Finn (1984) stated that some school districts have their own taxing authority, while others must go through the mayor, or town council for their revenues. But all develop budgets, establish pedagogical priorities, identify areas of curricular and extracurricular emphasis, adopt regulations and procedure, and hire and fire staff members. Many localities also have authority over their school buildings, often including construction, as well as maintenance and most deal directly with state, federal and private

agencies. If something goes wrong, it is generally the superintendent of schools or members of the school who will be the defendants in a lawsuit, not the governor or the city council. If a blizzard occurs during the night, it is the local school system that decides whether to let the youngsters stay home in the morning, not the mayor or the state senate.

A gap exists because no study has been conducted to determine the effect of state mandated legislation of an appointed EM on a public school district. There is also more research that can be conducted. The scenario and situation are specifically exceptional and can produce additional studies that will provide beneficial information to significantly improve public education and budget maintenance.

Theoretical Foundation

Punctuated equilibrium theory is the practice of allowing time to dictate whether legislation is successful in initiating change within a public entity. According to Givel (2010), punctuated equilibrium theory in public policy is replicated from the biological punctuated equilibrium theory and has concluded that public policies alternate between stasis and punctuation. True et al. (2006) stated that the punctuated equilibrium theory strives to explain a simple observation: political processes are typically characterized by stability and incrementalism, but intermittently yield a huge scaled departure from the past. Continuity, rather than disaster, generally describes most policy areas, but emergencies do occur. Large scale deviations in public policies are continuously occurring in one area or another of American politics and policymaking as public social issues revolve. Essential governmental programs are sometimes reformed, even if there

is just a minor shift in services provided. Most policy models have been successful at explaining, either the stability or the change. There is a situation when public policy guidelines, legislation, policies, or regulations either do not change or they are interrupted repeatedly. With regard to the outcome of the effect of the LFSCA legislation on DPS, only research can determine which is better for DPS.

Givel (2010) cited that scholars of punctuated equilibrium in evolutionary biology argue that punctuated biological evolution occurs due to a genetic drift resulting in species change particularly in isolated and peripheral species populations. The difference between punctuated equilibrium theory in the evolution of a biological change compared to that of a public policy change is the amount of time period in which change may be implemented. In biology, a change may not occur in over thousands of years but will experience change quicker in a public policy scenario. Theories for political science are typically derived from other social sciences, but according to Prindle (2012), some ideas have transitioned from the natural sciences, in order to explain the key relationships in political science. The concepts require thorough analysis in order to explain the relationship, in which the information is not automatically transferable.

The concept of punctuated equilibrium was created within evolutionary biology as an alternative to the dominant interpretation of the theory of organismal evolution first proposed by Charles Darwin and Alfred Russel Wallace in 1858 (Prindle, 2012). Darwin [1859] (2004), answered questions and grave objections only on the possibility that the geological record was far more inadequate than most geologists believed. It could not be objected that there was not time appropriate for any amount of gradual change; for the

lapse of time was so great and immaterial by the human intellect. Darwin [1859] (2004), implied that the geological records did not amount to all of the changes of the living organisms on earth. There were not enough fossils to justify and account for all species. So therefore, throughout the years, evolution had to occur in order to validate the similarities between the past and the present. It took many years for the transformation to take place.

There are some challenges in truly defining the direct origin of punctuated equilibrium. Darwin [1859] (2004), alluded to the process of punctuated equilibrium theory in the Origin of Species but the theory is not directly defined. As Prindle (2012) stated, despite the challenging status within biology, the idea of punctuated equilibrium spread quickly outside the confines of that discipline. Various thinkers realized that punctuated equilibrium theory in its general form provided a model for stability and change in any complex system. There is always resistance to change. The resistance may build to an irresistible level, at which point change is rapid and thorough. Stasis will then prevail again until next time. As you are potentially looking at an item, it may seem as if it is not changing but the continuous resistance to change will eventually become apparent. All changes are not always readily apparent.

The drastic approach of appointing an EM was due to the change in population. Legislation should reflect societal changes and remain up to date with changes that affect society or the economy. Throughout the history of the United States, constitutional laws have been amended in order to reflect the individual human rights of individuals. For example, women's voting rights, slavery, civil rights, and most recently the rights for

same sex marriages. Jordan (2003) stated that the demographic make-up of a community influences the mixture of goods and services its citizen's demand from their local government decision-makers. When the foundation of the population changes, the choices that manage government also changes.

Throughout Michigan, there was a sense of urgency to ensure that local governments and other public entities were financially secure due to high unemployment that affected the area. According to the Michigan Bureau of Labor Market Information and Strategic Initiatives (2016), in 2007, Michigan experienced 7% unemployment, while Detroit experienced 13.5% unemployment. In 2008, Michigan experienced 8%, while Detroit experienced 15% unemployment. In 2009, Michigan experienced unemployment of 13.7%, while Detroit experienced unemployment of 25.1%. Detroit's unemployment during this period was almost double that of Michigan. Unemployment affected Detroit's revenue and also caused government to experience financial hardship.

Media also affected the change in most policies. Wolfe (2012) stated that media, as a gatekeeper to arguments and interests, conditions the speed of the policy process. Media attention can expand conflict and bring in new interests. Media redefines how decision makers understand policy by reweighing the importance of some issues and attributes over others (Wolfe, 2012). Because of its role in the public policy and legislation development process, media tends to slow down the system. According to Wolfe (2012), one possibility that explains the time-varying effect of media coverage is the dynamics of conflict expansion and issue intrusion. Conflict expansion and issue intrusion are neither infinite nor linear processes. Media slows down the speed of

lawmaking by bringing in new issues, policy participants, and problem definitions. High levels of media coverage send strong signals to policymakers about the importance of changes to existing legislation.

Baumgartner and Jones (2009) adopted the terminology of punctuated equilibrium because it evokes the images of stability interrupted by major alterations to a system. Systems may be stable without necessarily being in equilibrium but may not possess external disturbances. Givel (2010) concluded that punctuated equilibrium in public policy occurs as a result of major alterations to the policy system. In recent years there have been changes to public policy. Changes are defined as long-term and incremental, followed by external shock to a policy monopoly resulting in explosive policy change.

The assumption that it has taken time for DPS to arrive in this era of having an enormous budget deficit is the major theoretical proposition of my research. The average person understands that the issue is not resolved in one year. With this research, I hope to determine whether the policies implemented should have an effect on DPS's budget or is there an effect on other dependent variables such as the standardized assessment scores, student population, college readiness, and graduation rates. I assume the decisions made to reduce the budget deficit have an association with the dependent variables related to education policy. The negative effect on education policy may exist because the EM appointed to DPS for fiscal reasons, lacks educational experience. The individuals appointed to the role of EM lacks the Michigan required educational certifications to manage and or supervise a school district.

A positive perspective of an appointed EM under the LFSCA is the ability to reduce bureaucracy in a government organization and being able to instantaneously implement new policies within the school district. This creates a situation in which the check and balance system between the executive and legislative bodies of the school district is obsolete, which is a violation of the constituents' democratic rights. According to Robinson (2004), bureaucracy was the subject of much praise, and much criticism, in the social sciences—often in the same document. Robinson (2004) stated that critics of Max Weber raised important considerations about the implication of increased specialization and formalization. Rather than a reduction of friction, critics argued that bureaucracy increased rigidity in the organization. Increased rigidity resulted in lowered organizational productivity. Bureaucracy slows down processes. According to Robinson (2004), past levels of poor performance led to an expectation of future higher levels of bureaucratization. The combination of these results supported the contention that bureaucracy was a response to a difficult educational task (raising low scores, predominantly in a heterogeneous educational environments) and not a cause of low performance. Bureaucracy is a key component of the United States' failing schools. The conclusion of research conducted by Robinson (2004) stated that leadership should question the distinctions between management of "change" and "stability." There should be consideration regarding the management technique appropriate for different magnitudes and frequencies of change.

The generalized concept of punctuated equilibrium theory acknowledges a long period of change that occurs and is instantaneously recognized. While going through the

process, there is barely any recognition of change. The process typically is a long awaited period but in the end the difference is recognizable. When there is policy developed or policy implemented, the results are not always noticeable within a day, week, or month. Depending on the policy or legislation, the time for implementation can be long and the outcomes may not be felt until years afterward. This is the theoretical concept of punctuated equilibrium. The expected outcomes required definitions and a measurement tool developed prior to the policy or legislative implementation versus that of the measurement of the effect of undefined outcomes and a comparison is made and documented in order to determine if the change was beneficial or not. It feels as if nothing has changed or transpired but an unrecognizable change is in the process. Givel (2010) cited Baumgartner and Jones, 1993, 2009; who stated that when policy patterns after positive feedback resulting in punctuation of equilibrium are then followed by a new pattern of long-term and relatively incremental policy change. Significant factors contributing to the resistance of punctuated equilibrium in the form of negative feedback are identified as: policy entrepreneurs, courts and rule of law, policy monopolies, bounded and not comprehensive rationality, lack of acceptance of new policy ideas tied to a public policy, and the fragmented U.S. political system in which only select political jurisdiction may adopt significantly new legislation.

As the education policy guidelines within DPS were applied, the school district experienced a financial hardship (Flanagan, 2008). The school district experienced financial distress due to years of having a budget deficit. Unfortunately, the district was under emergency management since 2009. With this specific information reported yearly

for over three years, the governor decided to place the school district under emergency management, in which an EM was appointed to oversee the entire school district, the academic and financial functions (Flanagan, 2008). Within three years prior to the appointment of an EM, the policies regarding the finances were stasis and had not changed. The legislation was enacted to allow the governor to appoint an EM to provide financial oversight to local municipalities and/or school districts that were experiencing financial distress. This punctuated legislative enactment was adopted because according to the Michigan's Public Act 4 of 2011, it was determined that the public health, safety, and welfare of the citizens of the state would be materially and adversely affected by the insolvency of units of local government, including the school districts. The fiscal accountability of units of local government is vitally necessary to the interests of the citizens of the state to assure the provision of necessary governmental services essential to the public health, safety, and welfare. It is vitally necessary to protect the credit of the state and its political subdivisions. It is necessary for the public good and a valid public purpose for the state to act and assist units of local government in a condition of financial stress or financial emergency so as to remedy the stress or emergency by requiring prudent fiscal management and efficient provision of services.

Local versus state control of schools has been an issue for years. Denis and Finn (1986) discussed that the state constitution is the source and legal embodiment of the state's self-imposed obligation to provide education for its residents, and the legislature possesses plenary authority to discharge this obligation through whatever administrative mechanisms it likes and to modify those mechanisms whenever it sees fit. The State of

Michigan, like other states is obligated to provide educational services to its constituents. The Michigan Department of Education is the state's legal entity for implementing state legislative guidelines, as well as monitoring the statewide assessment tools. All states have credentials but determine whether or not the jurisdiction of the public schools will be directed by the state or the locality.

The LFSCA legislation was originally developed and approved by Governor James Blanchard. In 1999, Michigan's Governor John Engler approved Michigan Public Act 10, in which the state authorized a takeover of DPS. According to Michigan PA 10 of 1999, it was developed to amend PA 451 of 1976 sections 402 as amended by PA 71 of 1982 and added part 5A and section 449. PA 10 of 1999, allowed the Governor to restrict the powers of the elected school board and give the mayor the power to appoint members of the school board for a period of five years. This change was implemented in order to enhance school quality in the qualifying district. The legislation was valid for any public school district in the State of Michigan but was only imposed on DPS. The legislative policies were developed to implement change for the students in the City of Detroit. A change was not going to be experienced overnight but with time, a change could be observed.

Givel (2010) cited Baumgartner and Jones, 2009 which stated that punctuated equilibrium can occur through "disruptive dynamics" that can include interactions between political parties, interest groups, elected officials, and legislative committees (p.190). Punctuated equilibrium policy theorists have noted that sharp policy change can also occur due to disruptive events caused by crises, elected officials, legislative

committees, wars, new technologies and scientific changes, radical economic change, and reformist mobilizations by interest groups and coalitions opposed to policy monopolies. Givel (2010) also stated that policy monopolies or powerful and influential groups or coalitions in a policy subsystem can hinder the ability of outside groups to actually engage in significant decision making and policy change. Power in this manuscript means the ability of one or more parties to compel one or more other parties to engage in certain actions, even against their will.

Public policy outputs have been defined as government actions or inactions with respect to laws, regulations, and funding for a particular issue. Public policy outputs are commonly reflected in executive branch actions or orders, judicial decisions, and legislation (Givel, 2010). Punctuated equilibrium theory includes periods of equilibrium or near stasis when an issue is captured by a subsystem, and periods of disequilibrium, when an issue is forced onto the macropolitical agenda. When an issue area has been on the macropolitical agenda, small changes in the objective circumstances have caused large changes in policy, and the system may have undergone a positive feedback process (Sabatier, 2007). Positive feedback occurs when a change, sometimes a fairly modest one, causes future changes to be amplified. We use terms like “feeding frenzy” and “bandwagon effect” to characterize such processes. Negative feedback, on the other hand, maintains stability in a system, somewhat like a thermostat maintains constant temperature in a room. Givel (2010) stated that the uniformity between stasis and punctuated change is not necessarily the rule or basis of public policy change. Reformist

policy output change may not be punctuated or salutational or near salutational even when there is an attempt at punctuation.

The first step in describing the new syllogism or new form of reasoning is to take note that policy output change may not occur due to powerful interests asserting their influence. Sometimes dominant corporate interests win despite an attempted punctuation, suggesting, in these cases, a policy monopoly based on corporate hegemony and dominance in a policy niche. Testing the major and minor premises of the conclusion of the basis for the reasoning is the using a methodology approach that does not necessarily directly predict and explain what government does or does not do but focuses on the actual policy process and it does not directly measure the end and ongoing results of the policy process or policy outputs.

There is no justification in scholarly literature that examines why government does or does not have an inadequate approach to measure policy output change as it has actually affected society and the natural environment (Givel, 2010). With regard to feedback and policy implementation on educational policy within DPS, like earthquakes or landslides, policy punctuations are precipitated by a mighty blow, an event that simply cannot be ignored (hence, the name "emergency management") or by relatively minor events that add up over longer periods of time. What has determined whether an issue will catch fire with positive feedback or not. The interaction of changing images and venues of public policies does (Sabatier, 2007). The example that True et al. (2006) used was that of positive feedback in policymaking.

Before the late 1960s, the federal government had low involvement in creating policies in crime prevention. During Lyndon Johnson's administration, there were several initiatives that provided grant in aid programs to assist state and local governments with crime prevention and control. In 1968, Congress passed the Omnibus Crime Control and Safe Streets Act. The period between 1969 through 1972 there was an increase in federal spending on crime and justice and the budget for prevention and maintenance doubled. The cause of this sudden increase in budget allocation was based on the growing trend within the public sector. Constituents felt insecure about their safety, which caused people and government officials to begin focusing on the crime problems. When an issue is highly publicized and becomes accepted, there was generally a growing support of the policy and it then became associated as successful policy monopoly (Sabatier, 2007). This explanation of how policy implementation is budgeted describes how the national education policy initiatives that are implemented on the local, state, and federal levels.

Punctuated equilibrium theory explains the intentions of the LFSCA legislation in Michigan. The legislation was developed to assist local governments and public school districts if they were considered financially distressed. With the downward economy there were numerous publicly funded organizations that were experiencing financial distress. The LFSCA legislation allowed the governor to appoint an EM if there were signs of financial distress. Within DPS, the organization had experienced years of financial distress and since education is an item that is not only required by the U.S. constitution, it was a hot federal topic.

The conversation regarding education exists not only because of literacy rates, high school dropout rates, or college preparedness rates but because of workforce development due to the unemployment rate. There are numerous positions that cannot be occupied because people do not possess the skill level or educational level required to assume available positions. There is a high demand for certain positions but there is no qualified applicant pool to satisfy the need.

According to True et al. (2006), the translation of punctuated equilibrium theory was not smooth, however, because decision-making activities were subject to decision and transaction costs. Policymakers incurred cost in the process of making a decision. Participants in a policymaking system must overcome these costs to respond to the signals from the environment, which themselves are ambiguous.

Cognitive and institutional costs are two major sources of costs for translating inputs into policy outputs. Cognitive costs occur when political actors must recognize the signal, devote attention to it, frame the problem, and devise solutions for it. Institutional costs occur when the rules for making policy act to maintain stability and incrementalism.

True et al. (2006), also stated that policy outputs are more punctuated than the information coming into government. The initial theory of punctuated equilibrium in policy processes is applicable to the dynamics of the specialized politics of policy subsystems. It has proven robust enough to survive several rigorous quantitative and qualitative tests, has spawned a new approach to the study of public budgeting based in stochastic processes, and it has satisfied the criterion that any theory not only be verifiable but also fruitful in suggesting new lines of inquiry. The complexity and

changing interactions of the American policy process mean that accurate policy predictions will be limited to the system level. Specific predictions about policy outcomes is possible only to the extent that we are able to avoid positive feedback and punctuations when we choose areas and periods for study, or we limit our "predictions" to what we can know after the fact was successfully mobilized. Nonlinearity, non-normality, interdependencies, and high levels of aggregation for empirical data mean that clear causal chains and precise predictions will work only in some cases and for some times. Because stasis characterizes most of the cases and most of the times, scholars may be convinced that they have a good working model of the process. But a complete model has not been locally predictable, since the timing or the outcomes of the punctuations is not foreseen (True et al., 2006).

Public budgeting is both a conflict over scarce resources and a reflection of expressed preferences at a legislative level. Similar to other democratic public budgeting arenas, state budgets contain the outcomes of extensive decision making processes involving the preferences of many political actors. By looking at the rates of change in budgetary outlays, insight was gained into the process by which collective decisions were made (Breunig and Koski, 2006). Also, political agendas were formed by scarce resources. According to Breunig and Koski (2006), public policymaking were punctuated, i.e., large periods of stability were interspersed with dramatic change because of issue attention shifts. Budget punctuation incorporates descriptions of both incremental and large-scale fiscal change. Budget punctuations are defined in distributional terms: budget changes are classified as punctuated if they are extreme

compared to a high frequency of incremental change within a distribution. The budget I reviewed during this research was analyzed not only for determining the fiscal budget balance but to review the allocation of the budget for DPS to determine the changes in budget allocations. The additional analysis of the allocated budget could be useful for future research as it can determine whether or not the shift in budget allocations has a relationship with the variables that are measured, graduation rate, assessment scores, budget balance, and student population. Reviewing the budget balance during the six years in which the EM was appointed also provided initial insight on how budget changes can affect the overall education policy of DPS as an organization and its outcomes that affect the public.

Theoretical Framework

The theory of punctuated equilibrium has been applied and articulated in previous types of research including but not limited to public policymaking and budget expenditures within governmental organizations. True et al. (2006) stated that punctuated equilibrium theory sought to explain a simple observation: political processes were generally characterized by stability and incrementalization, but occasionally they produced large-scale departures from the past. Punctuated equilibrium theory has been used since the 1990s to describe the policymaking process within the United States. It is used internationally to describe the democratic process. The policy process commences when government or constituents notice that a problem exists, the issue is advocated or lobbied for and the legislative process begins. Sometimes it may take months or even years to develop legislation or implement a policy change. The change goes into effect

and may be monitored to determine whether or not the outcomes are satisfactory. For example, in the past there were issues with failing schools, in which no one was being held accountable for ensuring that students were performing at grade level and passing standardized aptitude tests. According to Lemke, Hoerandner, & McMahon (2006), No Child Left Behind (NCLB) required districts to produce annual local report cards for each school, specifying average student performance on state assessments. Most individuals would like to know if NCLB has worked since implementation in 2002. In order to determine the effectiveness of the legislation, research is necessary to review whether assessment scores have increased or decreased. The time taken for the evaluation period (over 10+ years) is the stasis that describes punctuated equilibrium theory. The stasis is the waiting period or the slow process of potential change.

The seminal researcher that first contributed to punctuated equilibrium theory is Charles Darwin. Darwin [1859](2004) explained the profusion of living things on earth as the result of the preservation of adaptive varieties of organisms within a species and the merciless elimination of maladaptive varieties by the natural environment, resulting in the accumulation of changes, and therefore the gradual transformation of species over deep time. The mechanism of culling-by-environmental-factors is known as natural selection.

In previous research used in this study, punctuated equilibrium theory measured the amount of time that was taken to implement a change. For example, Jordan (2003) study examined punctuated expenditure changes across budget functions to determine any variation in distributions. Six functions were examined—police, fire sanitation,

parks and recreation, public buildings and highways—over a 27 year period in 38 large cities. Wolfe (2012) collected data on bills passed by the 109th Congress (2005-2006) to measure media's effect on legislation being finalized. The dependent variable was the length of legislative activity for each bill from inception to finalization and the number of times the subject was mentioned in the media, using key word searches with LexisNexus (ProQuest) Academic news archives of The New York Times because The New York Times had the largest circulation amongst the national circulation of newspapers in the United States. These two examples showed how time is relevant, determine how information is processed, and how an independent variable can affect the dependent variable, while showing a relationship between the two variables.

Punctuated equilibrium theory benefits my study because it provides an understanding as to why it is beneficial to wait and review historical information for several consecutive years as opposed to reviewing data from one year after legislation has been implemented. The more data available to analyze, the greater the chance in receiving data that is not only more accurate but that is truly representative of the outcome information in which is sought. All risks associated with small data sets are lessened compared to that of larger data sets. Inaccuracy of the data, as time persists, is lessened.

Mertens (2010) best explained an example of a study that is related to the construct of interest and quantitative methodology that reviews large-scale studies were generally considered to be reliable, with rigorous methodologies, thereby producing research results that were generalizable to wider populations. One of the primary benefits

of large-scale studies is the ability to generalize research findings from the study sample to the larger population. Generalizable research results are essential to influence policy decisions concerning middle grades education at the local, state, or federal level. By having an opportunity to review all of the standardized assessments for the entire DPS district for all grades, the data should not only maintain consistency but has an opportunity to determine if certain grades were affected. A large data set also has an opportunity to view if there are other fluctuations that have occurred. With the use of large data sets there is also no concern with the possibility of eliminating pertinent data by analyzing random data, which could potentially risk leaving out information that may be relevant.

Literature Review Related to Key Variables and/or Concepts

Qualitative research is concerned with quality, while quantitative research is concerned with quantity. In my research, I wanted to determine how much the EM legislation affected the dependent variables, it was reasonable to say that the best suggestion is to measure the data. The budget deficit was the major reason for imposing the LFSCA legislation on DPS and appointing an EM. Local constituents of Detroit will want to know how much the deficit has reduced and how policies have changed and affected the students. The χ^2 analysis will assist in determining if there is truly an association between the independent and dependent variables. My study will determine if the policy changes have negatively or positively affected DPS and its students. The way to eliminate an error in the data is to use large scale data.

Due to the gap in research, there are presently no studies directly related to the dependent variables and their relationship to the independent variable (LFSCA legislation) and its relevance to the research questions I conducted during this study. But according to Michigan's Public Act 10 of 1999 legislation which states that measurements may be useful in determining improvements in school quality in qualifying school districts. The changes indicate variations from baseline data from the school year before the appointment of the school reform board and should include performance measurement based on standardized test scores of students, dropout rates, daily attendance figures, enrollment figures, high school completion and other pertinent completion rates, changes made in course offerings, and proportion of school district resources devoted to direct educational services.

The variables that I researched are graduation rates, standardized test scores, student population, college readiness, and budget variances. The annual budget review was a fiscal related performance review. The primary reason the governor appointed an EM was because the state of Michigan declared DPS fiscally insolvent. In order to justify the appointment of the EM, I reviewed the annual budget balance. Also, according to Darling-Hammond (2010), Finland, Singapore, and South Korea were all different culturally and historically but all three made startling improvements in their education systems over the last 30 years by providing strategies such as funding schools adequately and equitably, organizing teaching around national standards and a core curriculum, eliminating examination systems that had once tracked students, using assessments that require in-depth knowledge of content and higher-order skills, investing

in strong teacher education, paying salaries that are equitable, supporting on-going teacher learning, and pursuing consistent long-term reforms. To summarize, students will successfully complete school if funding is adequate and assessments are conducive to students' ability to respond to performance measurement tools.

Graduation Rate

High school graduation rate is "a barometer of the health of American society and the skill level of its future workforce" (Heckam and LaFontaine, 2010). I analyzed DPS's graduation rate as a dependent variable for one of the performance outcomes. The graduation rate percentage increase or decrease determined if the implemented policies had any effect on it. Defining graduation rate is complicated. Heckman and LaFontaine (2010) counted GED recipients as high school dropouts, but included military and prison populations and excluded immigrants who entered the United States with a high school diploma, and used the eighth grade enrollment as the base for dropout estimation. For purposes of my research, I measured the graduation rate based on the individuals that began their senior high school year and successfully completed high school requirements to receive a diploma. I also reviewed the ratio of graduates compared to the beginning of the senior class.

It is important to measure graduation rates as the LFSCA legislation performance outcome measurement guideline. According to Jordan, Kostandini, and Mykerezi (2012), it was well known that remaining in school at least through high school graduation was vital to staying out of low-wage America. Dropping out of high school has social costs which are reflected in lost tax revenue and increased expenditures for health care,

corrections, food and cash assistance, subsidized housing, and public assistance, making drop-out prevention a priority for policy. In order to ensure that Detroit remains competitive and DPS establishes a balanced budget, it is only necessary that the graduation rates increase, therefore making sure that the students' graduation rate is measured properly as an outcome. Therefore making the relationship between DPS graduation rates and the EM legislation an important variable to measure.

Some of the assumptions that affected the graduation rate, which Jordan, Kostandini, and Mykerezi (2012) discussed were geographic control variables. Results suggested that students in areas with higher incomes were more likely to graduate, while areas with higher employment in public administration and manufacturing were negatively associated with the likelihood of graduation. Detroit, Michigan is known as the Motor City and the southeast Michigan area is home to many manufacturing companies Ford Motor Company, General Motors, and Chrysler. According to Jordan, Kostandini, & Mykerezi (2012), the main determinants of graduation were gender, race, assets, presence of biological parents in the home, maternal attributes, characteristics of high school peers, as well as industry structure and the level of income in the area. In conclusion of the study conducted by Jordan, Kostandini, & Mykerezi, graduation rates for black students declined in the 2000s compared to the 1980s. Detroit's population is majority black, as well as DPS. Statistically and according to my research, the results for the graduation rates decreased based on the population and the area.

There are diversion programs that are available in order to assist with successfully increasing graduation rates. The suggested additional programs are expensive and

require additional cooperation from DPS staff. The graduation rate increase can also be affected by the district's budget and policies of how money is spent. According to McCallumore and Sparapani (2010), increased graduation requirements are attributed to rocky transitions from middle school to high school and are comprised from a majority of the reasons for students struggling, failing and dropping out of high school. Reform programs, such as freshman academies, helped alleviate some of the concerns, but the problems did not just involve ninth grade. It is important to consider what is done before high school begins to better prepare students for new challenges, but it is also important to not drop the ball on students after ninth grade, during the remaining three years of high school. Thurlow, Sinclair, & Johnson (2002) recommended five key interventions to help prevent high school students from dropping out of school which include but are not limited to (1) persistence/continuity/consistency; (2) monitoring and tracking; (3) relationships; (4) affiliation; and (5) problem-solving skills. Persistence deals with someone at the school providing ongoing support, in order to build students security. Monitoring and tracking deals with the act of notification and correction of negative behaviors such as skipping classes, tardiness, absenteeism, suspensions, referrals, and poor academics. Schools must also create and maintain caring relationships between students and personnel. Students must have an affiliation or a sense of belonging to a group or project. Also students must be taught problem solving skills. Some other interventions to assist with increasing graduation rates are providing at-risk students supplemental services with tutoring, mentoring, counseling, and social support. Additional methods of services could include developing alternative settings, such as the

development of charter schools, alternative education, career academies and having "schools within a school". In conclusion of the Tavakolian and Howell (2012) study, there were many reasons students drop out from high school and did not earn a diploma. Some factors were external and was not within the student's control while some factors were at the school level and were controllable variables. Teachers should use positive behavior support, create safe and inviting environments, have a commitment to all students, model and support relationship building, have a meaningful curriculum that makes a connection to the real world, use a multi-modal approach to teaching, scaffolding, use prior knowledge, monitor and address student areas of need, listen, and engage students in learning. All of these techniques have proven very productive in increasing student graduation rates (Thurlow et.al., 2002). The ability to create an environment that is conducive of the intervention methods discussed requires funding and support from the appointed EM, which develops the education policies as it affects the financial resources available to DPS.

Standardized Assessments

Standardized assessments were originally determined as a performance outcome measurement for the Michigan PA 10 of 1999. According to Lemke, Hoerandner, and McMahon (2006), which stated that much attention focused on using student test scores to evaluate public schools. Test scores, it has been argued, can be used by parents, taxpayers, legislators, and educators to hold schools accountable by requiring 'corrective actions' to be taken when 'failing' schools are identified in order to improve public education and make better use of public funds. Corrective actions may include laying-off

staff, turning the school over to private or state control, providing vouchers to students, or even shutting down the school. Much hinges, therefore, on the relationship between test scores and the (perceived) quality of schools. The No Child Left Behind Act of 2002 required states to test students and evaluate each school's progress toward having all students meet or exceed state standards. States had the ability to set their own standards with federal approval. This also allowed different tests to be administered to different groups of students based on qualifications such as disabilities or students who spoke English as a second language.

In 2001, the assessment provisions of the No Child Left Behind Act (NCLB) linked "standardized" achievement tests of knowledge to federally funded programs in American public schools. Because virtually all public school systems depended on federal funds for some essential programs, the NCLB assessment provisions effectively located within the federal government the most fundamental aspect of public education policy – the power to authorize what counted as knowledge ("truth"), (Fazzaro, 2006). Since states have the ability through NCLB to develop standardized testing requirements, then public school districts should possess the ability to create a curriculum that would allow successful preparation to achieve full proficiency on the standardized assessments.

In the state of Michigan's example of appointing an EM, policies that are implemented within DPS should be conducive of not only assisting with eliminating budget deficits but enhancing and increasing standardized assessment performance proficiency. Measuring this variable was not only a performance outcome of Michigan PA 10 of 1999 but should have been a major requirement of Michigan PA 436 of 2012.

Fazzaro (2006) also stated that as an institution of American public education over its history has arguably acquired many purposes, the belief that the primary purpose of American public education was to prepare children to assume the fundamental political office of citizen had extended from the founders to the present. Even before the Constitution of the United States was ratified, the founders recognized the importance of education to a free, democratic society. For example, in 1787, the Congress passed the Northwest Ordinance which required that each new state have an education provision in its constitution. For the Congress to require this of new states being added to union was astonishing because over two hundred years ago, having a standardized education was required in order to ensure that the future of the United States was successful. As stated through different researchers, the ability to graduate from high school increases an individual's opportunity to become self-sufficient and independent. In order to ensure individuals have access to education, a standardized assessment is required not only to determine success but to ensure that there is accountability as a performance measurement tool.

Student Enrollment

Student enrollment is an important component for measuring progress for DPS. According to Saunders and Chan (2014), student enrollment forecasting was an important planning function of a school district. A short range forecast had an immediate direct effect on the planning of budgets, personnel, educational programs and school facilities for the upcoming year. A long range planning, usually covering five to ten years, examines current district data to project for possible happenings to student enrollment

figures and locations in the near future. The higher the student enrollment is for a school year, the higher the budget allocation. If DPS has a lower budget than previous years, the budget allocation is reduced, which will affect facilities, maintenance, programming, and grant funds through Title I funding, which is used for programming for students that require additional assistance for tutoring programming. In Michigan, charter schools are options for students that would typically attend DPS. Charter schools have drawn much needed resources from public education, their existence creates many unknown variables including school enrollment that seriously affect school district planning. Educational planners in public schools almost have to guess the approximate number of students who will move from their districts to charter schools and the possible effect it has on their budget, personnel, facilities and programs (Saunders and Chan, 2014). Under NCLB, there have been overall changes in how schools nationwide monitor progress. According to Saunders and Chan (2014), the pressure on school administrators and teachers was enormous particularly in disadvantaged areas where schools faced the possible fate of closing. A school closed by legislation or taken over by the state has a tremendous effect on the student enrollment forecasting job of a school district. Since many variables are uncontrollable, educational planners prepare several "if" plans for possible contingencies. If student enrollment forecasting is incorrect, it could cause a school district the inability to balance a yearly budget. The fiscal year for DPS begins July 1st of each year and ends on June 30th of the following year. The school year in Michigan does not begin until September after the beginning of the fiscal year. So therefore, the school year begins

after the 1st quarter, which financially can cause a problem for the budget if the actual student enrollment is lower than the forecasted student enrollment.

Budget Variance

Budget balances for DPS is another dependent variable that I analyzed. Under NCLB, federal education funds were made contingent upon a variety of accountability and reporting standards, creating new administrative costs and challenges for local school districts (Neely, 2015). Also, Neely (2015) stated that a policy shift raises important organizational questions for public school districts, as previous research has shown that contingent funding arrangements tend to significantly influence the organizational structure and behavior of local government and nonprofit organizations. But according to Smith (2006), these arrangements compelled an organization to adopt new administrative procedures, add professionals, institute new financial management practices, and in some cases, modify physical structures, all leading to an increase in administrative expenses.

College Readiness

College readiness in DPS is measured by ACT. According to Clough and Montgomery (2015), ACT solutions are designed and are validated to assess student progress toward college and career readiness. Students who meet the average benchmark score of the ACT have a 50 percent more chance of earning a B or better in a college course according to Clough and Montgomery (2015). Students that typically attend high minority, poverty schools are less likely to matriculate to any form of postsecondary education (Welton and Williams, 2014).

By reviewing and analyzing graduation rates, standardized assessments, student enrollment, college readiness, and annual budget balances to determine success, could cause a complicated situation for an EM for DPS. With requirements for meeting objectives for performance outcomes for NCLB, it seems to be a never ending problem. According to Neely (2015), if school districts responded to federal education policy by altering their organizational behavior/resource allocations in order to secure and manage federal funding streams, and if this trend was pronounced among more heavily resource dependent districts, one result may have been an increase in administrative expenses at the local level, especially for school districts serving large populations of at risk pupils and challenge the wisdom of overly encumbering Title I funding with accountability and reporting requirements. The challenge was having the ability to resolve the issue with the various dependent variables being monitored and managed.

Summary Conclusions

The major themes of the literature formed around school takeovers, which discussions and research is limited. Most of the literature discussed school takeovers based on local governments overseeing local public school districts, with the exception of a few articles that discussed Michigan taking over public school districts. The literature also discussed the primary foundational theory of the entire study, which is punctuation equilibrium theory. The discussions included a detailed analysis and definition of the work, which defined punctuated equilibrium theory as a stasis and a change. The literature also discussed how punctuated equilibrium affected the timeliness of public policy changes and/or legislation development through the media. The more media

coverage and the issue's relevance to the public determines whether or not the legislation or public policy change is implemented quickly or slowly. I discussed punctuated equilibrium theory and its effect on budgetary expectations. The time it takes to change the budget due to an organization's bureaucratic issues and the outcomes or performance indicators of the budget after the review of data variables after the budget had been implemented. I discussed punctuated equilibrium theory and its effect on processes and outcomes through proper analysis.

There were several known and unknown issues pertaining to my study, which contributes to future studies to close the gap in the research. The ethnicity of the student population along with the economic background of the students or the municipality are not discussed. The educational background as to whether students were taking honor classes or enrolled in classes for individuals with intellectual disabilities were unknown. The ages of the students in the classes were unknown, with whom the student resided, or if the students had siblings. Other unknown factors were how long the student had been enrolled in DPS and whether the student had been enrolled in the same school throughout his or her high school tenure. Student data were only from DPS and I assumed that all students were residents of Detroit because residency is required for admission. The schools selected were not charter schools. All of these unknown issues were important and were carefully noted because the informational data that were reviewed was analyzed for a relationship to the independent variable, which is the EM legislation. I did not try to determine whether a relationship existed amongst the additional information i.e. household size, income, etc.

My study fills the gap in the literature and will extend knowledge in the discipline by providing data that has been thoroughly researched and analyzed. Presently, constituents and community leaders alike complain and protested about the inequity of the EM legislation and how unbefitting it is towards municipalities and public school districts. No one has conducted peer-reviewed research regarding the issue. Numerous newspaper articles discussed the EM legislation and publicized information about work that has been conducted but no one has analyzed the actual data. My research is unique and has major social effects not only in Michigan but throughout the United States. It will extend the knowledge of the importance of measuring data driven outcomes when legislation is implemented. Unfortunately, in Michigan there is legislation being implemented but no data analyzed to determine whether the legislation has proven beneficial for those directly or indirectly affected. The constituents that are directly affected assume that the legislation is negatively effective but complaining does not solve the problem if tangible evidence cannot support or document the complaint. My research will also demonstrate that even though legislation may be implemented the effect may not be demonstrated until several years later. Gaps in research will continue to exist after my research has been conducted but my research contributions will assist in becoming the foundation of future research.

The policy implemented affected the educational policy outcomes such as the dependent variables that I analyzed, student population, ‘assessment scores, graduation rate, and the budget balance. The quantitative analysis methodology was the best approach of reviewing the preselected variables. In order to determine whether the

LFSCA legislation had any effect on the education policy within DPS, I conducted a thorough review of the variables from the year preceding the EM appointment until five subsequent years after the EM appointment had been made. I did not review the policies but I reviewed the budget balance, student population, standardized assessment scores, college readiness, and graduation rates were analyzed using a χ^2 analysis to see if there was an association and to place validity as to whether the legislation proved beneficial for DPS.

Chapter 3: Research Method

Introduction

The purpose of this study was to conduct research into whether Michigan's LFSCA legislation has affected DPS's education policy. A quantitative pre-experimental pretest-posttest χ^2 helped me determine the relationships between the independent variables and the dependent variables. The accessible data used for this research was aggregate. $\chi^2$was the best nonparametric method to analyze the data, because raw data were not accessible. The dependent variables that I analyzed were standardized assessments scores, student enrollment, college readiness, graduation rate, and budget balance for a period of 10 years. I selected 10 years to analyze the legislation before the LFSCA legislation was imposed and after the legislation was imposed. The review of the preselected timed data assisted in the determination of whether there was an association through the use of a pretest-posttest analysis. The discussion in this chapter will consist of the research design and rationale. The chapter includes definitions and discussions of the study's independent and dependent variables. I also will discuss the research design and how it relates to the research questions, which will include the period of time and any constraints, as well as how my findings will advance knowledge within the public administration and policy discipline.

The methodology that I selected included the target population and the size. I selected all data that was available for the dependent variables. No samples were selected, therefore overrode the inclusion and exclusion criteria. I did not conduct a power analysis to provide justification for the sample size because the data I analyzed

were secondary data, which I collected using the standardized assessment instrument selected by the Michigan Department of Education. The data regarding student enrollment and budget variances were secondary data from the DPS District. Therefore, it was not necessary to discuss recruitment, nor did I need to conduct a pilot study.

I selected the data sets from the DPS via the Michigan Department of Education through Wayne RESA and Michigan School Data. The aggregate data that I used included public information that is accessible via an online portal through the State of Michigan. If additional detailed information was required, the request for the data would have been accompanied with a copy of the dissertation proposal and sent to the DPS board. The DPS board can deny or approve requests for access to raw data. However, the additional data can be received through a Freedom of Information Act (FOIA) request because it is considered public information for a publicly governed organization. For this study, no additional detailed information was required due to using aggregate data.

Research Design and Rationale

The rationale for selecting the research design was one of a basic logical approach to conduct an analysis. The independent variable was the LFSCA Legislation and each year in which it remained effective for DPS. The budget balance was also used as a performance indicator because it was the justification used as to why the EM (through the LFSCA legislation) was appointed to the DPS by the governor of the State of Michigan. The dependent variables were standardized test scores, budget balance, college readiness, graduation rate, and student enrollment prior to and during the years in which the LFSCA legislation was effective. The original legislation, Public Act 10 of 1999, supported the

use of these selected dependent variables. The dependent variables used as a performance measurement outcome determinant, were included in Public Act 10 of 1999.

According to McNabb (2002), there were many acceptable ways to conduct research, however the only selection criterion that makes sense was that the method chosen must provide the best possible conclusions. I have selected a quantitative research design for my study. McNabb also stated that for proper scientific measurement only indicators should be studied if they can be measured. Miller (1991) sought answers to six basic principles as to why someone should conduct a quantitative research design. These principles included characteristics of the people in the sample e.g. demographic differences, the differences of the subgroups contained in the sample that might influence the way the questions are answered or the opinions that are offered, the statistically significant differences in the answers of any groups or subgroups in this sample, or if all questions were answered similarly. The confidence in the difference that occurs by chance, if there is an association between any two or more variables in a study, the relevancy and significance, and if there is any relationship between two or more variables whether it is possible to measure the strength and type of relationship using a quantitative methodology.

Methodology

Population

The data samples from the target population came from all students who attended DPS and were enrolled in the school district between the years of fiscal Year 2007 through fiscal Year 2016. DPS was officially declared under emergency financial

management in January 2009 by Governor Granholm. Reviewing data from fiscal Year 2007 through fiscal Year 2016 provided an opportunity to measure the variables two years prior to the legislation being implemented, compared to seven years after the legislation was enacted in the Detroit Public School district. All data were not available for all variables from fiscal year 2007 through 2016, but I conducted an analysis based on the information that was available.

According to Wayne RESA (2016) for 2015-2016 school year for DPS, student enrollment was 46,912. The data consisted of all students enrolled in all grades Pre-Kindergarten through 12 between FY 2007 through FY 2016. Pre-Kindergarten through 12 was included in the population size because state funding is allocated based on students enrolled in the district between these grades. All variables previously discussed (population, standardized assessment scores, and the annual budget balance) from the period of FY 2007 through FY 2016 will be analyzed.

Sampling and Sampling Procedures

Data for 3 years prior to the legislation (LFSCA) being applied to DPS and five years after the legislation (LFSCA) being applied to the school district. This will provide an opportunity to review the data before and after the policy implementation, which could result in changes made by the appointed EMs for the school district.

There was no sampling conducted by DPS. The data collected was based on the information received throughout the entire school district. Standardized assessments are conducted yearly. All students enrolled in the district and assigned to a designated grade level are required to take the standardized assessments for certain subjects. The

standardized assessments are conducted to monitor whether students are performing at academic levels comparable throughout Michigan e.g. grade level expectations, whether it is history, science, math or English language arts. The results from the standardized assessments were not sampled but reviewed in its entirety.

The time constraints selected for the data were due to the theoretical framework of punctuated equilibrium, which focuses on a specific time frame. The time constraints for the data were from 2007 through 2016 because the more time available to review, the better. According to Givel (2010), there must be a long-term and relatively incremental policy change followed by an exogenous shock. It will also provide an opportunity to conduct an evaluation as to whether the applied educational or financial policies have had an adverse effect or benefitted the data that I selected to research. Since the school district was in debt three years prior to the appointment of an EM, I decided to review the data at a time when the debt existed but there was no legislation enforced and after FY 2009, when debt existed and the LFSCA legislation was enforced on the district.

The design choice is consistent with research designs that have used punctuated equilibrium as a theoretical framework. Punctuated equilibrium seeks to explain a simple observation of political processes, which are generally characterized by stability and incrementalism but occasionally they produce large scale departures from the past (True et al., 2006), hence why the data selection expanded over a 10 year period. The 10 years reviewed included 2 years prior to, 1 year in which the EM was appointed to the school district, and 7 years after the appointment of the EM. Since no intervention is involved, I

did not intervene nor conduct a pilot study during this quantitative analysis because of the use of secondary data.

The sampling consisted of all students enrolled in the Detroit Public School district. The data that I used consisted of all students enrolled in Pre-Kindergarten through grade 12 throughout the district. The standardized assessment data that I used consisted of assessment scores from students enrolled in the district from Pre-Kindergarten through grade 12 and the results were based on how standardized testing is conducted in Michigan for all students dependent on grade and subject matter assessed. I collected and analyzed assessments scores for the subjects of math, science, social studies and language arts. Also, the ACT was administered to all 11th or 12th grade students to determine college readiness.

If all data were available for the period being researched, the data were included. If the data were not available due to how data was collected during the time period, the data was not analyzed for the periods without providing the corresponding information. The budget and student enrollment data was collected from and represented the entire district for DPS. The budget data consisted of all revenue received and all expenses incurred for fiscal years 2007 through 2016. The graduation rate consisted of all students attending DPS enrolled in the 12th grade during the beginning of the school year compared to 12th grade students that graduated at the end of the school year. The percentage rate was calculated as the following:

(# of 12th grade student graduates/# of 12th grade student enrolled) * 100 = rate

The procedures for recruitment, participation, and data collection did not apply to the analysis being conducted due to the utilization of secondary data. The data analyzed and used in my research was originally collected by the DPS district. DPS does not recruit students to assess and does not select samples of students to test. All students enrolled in district that are grade eligible are tested in various subjects in math, English language arts, history and science.

DPS collected the archived data. The data were information available to the public either on their public website or through FOIA. Additional detailed information can be obtained through the Freedom of Information Act (FOIA) as a research request from the Office of Research, Evaluation and Assessment Data and Reports. If additional detailed data is required, requests should be completed and attached with the dissertation proposal during the months of June, July or August and presented to the Board for approval. However, if the Board denies the request, then the information can be received through a FOIA request. Data is available from FY 2007 through FY 2016. FOIA requires that the data be supplied within five (5) days of the request. An extension can be requested if needed. No permission letters were required to request the data because the information used was considered public information. The data did not identify the students individually but provided their information such as their age, assessment scores, age and statistical data such as ethnic background. The archived data used was processed utilizing a standardized method that is required for all public school that receive public funding for districts throughout Michigan. Public educational institutions include both

charter and public school districts throughout Michigan. Only data for DPS district and not charter schools were used for my research.

The different instruments used to conduct a standardized assessment of all students enrolled in Michigan public schools whether charter or in a public school district are Michigan Merit Examination (MME), Michigan's Alternate Assessment Program (MI-Access), Michigan Education Assessment Program (MEAP), and ACT. The MME assesses students in the 11th and 12th grades based on Michigan high school standards. The MI-Access is an assessment tool that is available to students that have been diagnosed as possessing a cognitive impairment and their Individualized Educational Program (IEP) team has determined that the typical assessments, even with accommodations are not deemed appropriate. This assessment satisfies alternative testing requirements that are listed under the federal Individuals with Disabilities Education Act (IDEA), mandating that all students are assessed at the state level under the 2004 reauthorized No Child Left Behind Act (NCLB). The MEAP consists of a summation of assessments that has been designed to measure students' academic growth in grades 3 through 8 and 11. The assessments are in English language arts, mathematics, science and social studies. Each of these assessments were analyzed individually for each grade and each year. The ACT consists of assessments that measure college readiness for high school students in the subject areas of English language arts, mathematics, science, social studies and writing composition. These assessments were analyzed individually.

Instrumentation

I did not independently develop any instruments to conduct a study for my research but I used secondary data. DPS has materials to measure students' educational attainment level assessment while enrolled in a publicly funded school district or charter school in Michigan. The results of the instruments that are being used were the following:

1. M-STEP (Michigan Student Test of Educational Progress), which tests English language arts and mathematics for grades 3 through 8, tests science in grades 4 and 7, and tests social studies in grades 5 and 8.
2. MEAP (Michigan Educational and Assessment Program) replaced by M-STEP in 2014.
3. MME (Michigan Merit Exam) for students in grade 11.
4. MI-Access (Alternate Assessment Program) for students who have an Individualized Educational Program (IEP)
5. PSAT (PreSat – Summative assessments) tests in all content areas for grades 9 and 10.
6. ACT standardized assessments for college readiness, tests students in grade 11 and in grade 12, if test was not taken in grade 11.

According to Burns (1998), the MEAP reliability ranges from .654 to .949 are generally accepted.

The variables researched and analyzed were student enrollment (population), standardized assessments, college readiness, budget balances, and graduation rates.

According to McNabb (2002), operationalizing described the process of defining or conceptualizing the key constructs or themes that form and shape the research. Operationalizing also required the researcher to identify any limitations and assumptions for the research. The purpose of operationalizing was to impose order and structure on the data. The definition of student enrollment is the number of students that were enrolled in the entire Detroit Public School district during the fiscal year. Some students may have been enrolled for the full school year but attended and were counted and received funding for attendance during the school year. This definition does not include homeschooled children, children enrolled in charter schools or private schools in the city of Detroit, or even children that live within the boundaries of Detroit.

The definition of standardized assessments are specific to the testing requirements of Michigan. DPS with the testing requirements, measured the level of proficiency of students that were evaluated in the subjects of English language arts, science, social studies, math, and writing composition. The assessments provide feedback or a performance outcome of the students that have been enrolled in the DPS district and measures their fluency with the subject matter. Not all students have been enrolled in the district, so the data will deviate some dependent on whether students are performing at the same level as their peers that may have been enrolled in the district throughout their educational experience.

The ACT is a college and career readiness assessment. According to Clough and Montgomery (2015), this assessment tool was used to measure whether or not a student was ready to enroll into a postsecondary institution and complete the college or career

plan successfully. This tool was also used to measure proficiency with high school requirements but was not only amongst the students statewide or local level peers but provides a national comparison. This assessment is now required in the 11th or 12th grade and will measure readiness in English language arts, science, social studies, math, and writing composition.

Budget balance is defined as the DPS district's revenue minus expenses. The revenue is considered all forms of income that are available to the district, whether it is local, state, or federal grant funds. The funding can be through proposal application or just general state revenue sharing for pupil or student attendance or enrollment. Expenses are all costs or bills incurred, accrued or paid during the fiscal year in which it was a charged. The actual budget balance can be positive (a surplus), negative (deficit), or zero (balanced). This is important to monitor or measure because the Emergency Management legislation has been implemented towards the DPS district because of a continuous and excessive budget deficit.

The data analysis plan included using the χ^2 method of analysis to analyze the data. I conducted a pretest-posttest χ^2 analysis, which determined if there were statistical associations amongst the dependent variables and the LFSCA legislation. The data was retrieved from Wayne RESA via Michigan School Data in a Microsoft Excel worksheet, which will be downloaded and assorted appropriately. The information included in the worksheet was separated by columns, in which the columns were defined by the school, sex, racial background, grade, and subject for all of the standardized tests. For the purpose of this analysis, the standardized assessment and ACT scores were analyzed for

the mean, median, and mode. My research was not focused on the sex, school or racial background of the students being analyzed but the individual scores. The data provided can lead to additional research in the future. More detailed research can focus on racial background, sex and the school attended in the future.

The data for the graduation rates received consisted of the total number of students per school that were enrolled in the 12th grade. The data received included the number of students that graduated on time or after completion of summer school requirements. The data included the number of students that have selected to receive a GED. Also included in the data was information on students that dropped out of school or were re-enrolled during the following year with the anticipation of completing high school requirements at that time. For purpose of this research, the analysis focused on the number of students enrolled in the 12th grade and those who graduated on time and during summer school.

The data for student retention included the total number of students enrolled in the entire district. The information received is available by school, ethnicity, sex, grade and the number of students enrolled in each school. For the purpose of my analysis, the review of the data consisted of the number of students enrolled in the entire district for each school year. Research for future years may include a more detailed review of the data by grade, ethnicity, sex and school.

The data for the budget balance consisted of the budget revenues per fiscal year and the budget expenses per fiscal year. For the analysis of the information, I used the following basic equation:

Budget Revenue – Budget Expenses = Budget Balance

The budget balance if positive or greater than zero is defined as a surplus. The budget balance if negative or less than zero is defined as a deficit. I conducted the equation for every year analyzed determine whether each fiscal year maintained a budget surplus or deficit.

Each variable measured was represented visually on a graph. The graphs show a comparison for each variable during each year. College readiness and standardized assessments are separated by subjects. The subjects analyzed are English language arts, science, social studies, math, and writing composition. Each year should show if the variable or subject either increased or decreased. The years that I analyzed were fiscal years 2007 through 2016. The LFSCA legislation was imposed on Detroit Public School district during fiscal year 2009. The governor appointed an EM to the DPS district based on the continuous budget deficits that affected the school system. The information that was sought was whether the effect of the policies that the EM applied towards the school district decreased the budget deficit, which the purpose of the appointment and/or if the policies affected the student retention, graduation rates, college readiness and standardized assessments. The linear regression graphs were able to show the relationships of the variables compared to the legislation being applied to the Detroit Public School district.

The research questions were the following:

1. Is there a statistical association between graduation rate (X_1) before and after the enactment of the LFSCA (Y)?

2. Is there a statistical association between standardized test scores (X_2) before and after the enactment of the LFSCA (Y)?
3. Is there a statistical association between student retention (X_3) before and after the enactment of the LFSCA (Y)?
4. Is there a statistical association between budget variances (X_4) before and after the enactment of the LFSCA (Y)?
5. Is there a statistical association between college readiness (X_5) before and after the enactment of the LFSCA (Y)?

The primary hypotheses of the study were the following:

H_1 = Graduation rates are statistically associated with the LFSCA.

H_{01} = Graduation rates are not statistically associated with the LFSCA.

H_2 = Standardized test scores are statistically associated with the LFSCA.

H_{02} = Standardized test scores are not statistically associated with the LFSCA.

H_3 = Student population is statistically associated with the LFSCA.

H_{03} = Student population is not statistically associated with the LFSCA.

H_4 = Budgetary variances are statistically associated with the LFSCA.

H_{04} = Budgetary variances are not statistically associated with the LFSCA.

H_5 = College readiness is statistically associated with the LFSCA.

H_{05} = College readiness is not statistically associated with the LFSCA.

My study used a general linear model, which according to Knoke et al. (2002) assumed the relationships among independent and dependent measures varied according to straight line patterns. This model was a more flexible tool that was modified to fit a

combination of discrete and continuous measures available. Since all variables were in the form of non-parametric aggregate data, a χ^2 analysis was appropriate. The equation that was used was the following:

To perform a χ^2 test, the following calculations must be conducted:

The expected numbers (under the null hypothesis) in each cell are equal to

$$\frac{\text{row total} * \text{column total}}{\text{grand total}}$$

To calculate the χ^2 statistic the following must be completed:

$$\frac{(\text{observed frequency} - \text{expected frequency})2}{\text{expected frequency}}$$

using χ^2 in SPSS complete the following:

click analyze > descriptive statistics > crosstabs

A two way table 2 x 2 contingency table was used to analyze the assessment scores. An example of the table is below:

Variable 1 (Assessment Type)	**Data Type 1 (Number of Students Passed)**	**Data Type 2 (Number of Students Failed)**	**Totals**
Category 1 (Pre – Legislation)	**a**	**b**	**a + b**
Category 2 (Post Legislation)	**c**	**d**	**c + d**
Total	**a + c**	**b + d**	**a + b + c + d = N**

χ^2 was calculated using the following:

$$x^2 = \frac{(ad - bc)^2 (a + b + c + d)}{(a + b)(c + d)(b + d)(a + c)}$$

df = degrees of freedom was calculated as the following:

$$df = (r - 1)(c - 1)$$

Threats to Validity

Common threats to validity included but were not limited to a lack of consistency amongst the students' data that were analyzed. The inconsistencies included the demographics of the student, gender, age, health and individual parental (guardian) involvement. The additional components were not taken into consideration. The uncontrolled limitations of my study included students that have repeated the same grade more than once, this could have occurred from kindergarten through 12th grade. Some students may or may not have attended the DPS district in previous years and could either test at a grade level above, at, or below the presently classified grade level. Some schools within the district are classified as college preparatory schools and possess higher standardized test scores, college readiness or have a graduation rate that is a higher level than other schools within the district.

Internal threats to validity could have involved data collection. There are several preventative measures that occurred in order to ensure that internal threats to validity did not occur during the standardized assessment process throughout the state of Michigan. According to the Assessment Integrity Guide, all districts and staff must:

- Adhere to the testing administration windows and testing schedules.
- Provide integrity and security training to all staff, both when they move into jobs and then periodically to be sure they are current on security policies and procedures.
- Assign explicit responsibility for test security and monitor the effectiveness of each school's efforts.
- Work with the OSA when necessary to prevent irregularities.
- Adhere to all test administration rules and policies.
    - Devote as much attention as possible to prevention.
    - Follow rules to discourage student or Test Administrator prohibited behavior.
- Administer test to all eligible students.
- Provide accommodations when deemed required and authorized.
- Ensure that all staff are properly identified or licensed as required.
- Ensure that test administrators proctors do not possess a conflict of interest.
- Develop seating charts.
- Remove any preparatory test related materials from the vicinity.

- Prohibit smartphones and other smart accessories within the testing area
- Retain all test and scrap paper from testing period

As long as the aforementioned preventative measures were adhered to, there should not be any threats to validity or reliability of the standardized assessments that are implemented. The data should not reflect any proof of tampering. Any tampering of information or data upon administering the standardized assessments is reported to the District Assessment Coordinator and that individual determines the final outcome.

Other internal threats to validity that may have affected the study was the loss of students or dropouts and the testing instrument. The history of the school district can also cause an internal threat to validity, along with the different schools in the school district. Different schools have inconsistent processes and are not standard throughout the district. Also, the testing population may have responded differently than normally due to the stress or expected outcome of the test results. Another internal threat to validity was the assurance that the tests had been administered correctly.

External threats to validity included but were not limited to a variance in the results of the population. There were different grade levels that were tested which may have caused a shift in the actual results of the outcome of the tests. The interaction of the time of measurement and history were both additional external threats to validity. The time period that was analyzed is pertinent to the results of my study due to the imposed legislation. The history of the legislation, as well as that of the school district was relevant information due to how the information is reviewed and the context of the data

that is being analyzed. The financial history was important in order to understand the environmental climate of the school district as well as the municipality.

Ethical Procedures

There were no ethical concerns with the procedures due to Michigan Department of Education ensuring that all students within all districts have equal access to available testing. According to the Assessment Integrity Guideline, accommodations were made for all students throughout the Michigan, from students that were enrolled in public school districts and charter schools to individuals that may have possessed a documented learning disability, language barrier, or were homeschooled. The system was inclusive and took severe measures to eliminate any exclusive behaviors, by educating the proctors, teachers, students, parents, and school administrators. There was information available to the educators in order to prepare students, either using previous testing materials or test guide to incorporate in the class syllabus. However, educators are not supposed to isolate the teaching process to focus on the standardized assessment only. It is a tool to teach familiarity.

There were no foreseen ethical concerns regarding receiving access to the data that is a result of the student population taking the required standardized assessment, which is public information. As stated earlier, the raw data is available to the public upon request via written or verbal. The information is secondary data. The only ethical concerns was ensuring that the data did not contain personal or private student or family information. Even though the information is available to the public, it was not shared with those who have not been included on the initial request unless the individual assisted

with the interpretation of data. All students are required to participate in the testing if enrolled in a public school district or charter school. No one is excluded. The data was not destroyed after it was analyzed nor was it destroyed but may be used in the future for additional research.

The archival data pertaining to the student assessment scores, enrollment count, college readiness and graduation numbers used during the research were anonymous. The data did not contain any personal student information such as name, social security numbers, addresses, contact information or any other student identifiers. Personal student information is illegal to disseminate without parental consent and therefore was not shared with me via Family Rights and Privacy Act of 1997. The information was not included in the data set received from Wayne RESA nor did I seek the information. Information pertaining to the schools in the district were not used or cited in the analysis of the research but may not be analyzed in the future in its entirety. At this time, the analysis of individual school data was not discussed to determine whether it may prove useful to conduct future studies on a more derived detailed basis during the overview or discussion of the analysis.

The data researched is public information that can be obtained by anyone. Even though the data is public information, some detailed data may have to be requested via Michigan FOIA Freedom of Information Act of 1996, if it is required. The type of data used were aggregate data, which was available through public access online. Data that were readily available via public consumption were analyzed data for public statistics. The public statistics is readily available for download or to request through Wayne RESA

via Michigan School Data in order to satisfy accountability requirements of the state of Michigan. Public education is funded by taxpayers, therefore requiring the government to provide the public with feedback regarding performance measurements e.g. assessment outcomes, revenue, expenses, enrollment data and graduation outcomes. Since the data is public information, the research will not destroy the information. The data were not shared with anyone else. Also, the data may be used in the future to provide more detailed analysis.

The ethical issues no longer exist but assists in researching and having access to information that a typical researcher may not be necessarily privy. In the past, I was not only a resident and homeowner in and of Detroit, a DPS high school graduate, and a public servant for the city of Detroit. The city of Detroit experienced its financial woes in the past by filing bankruptcy under the leadership of an appointed EM. Upon conducting the research during the beginning of the dissertation process, it had been construed that there may be a conflict of interest because of the close ties of the economic financial concern of being so close to the issue. News articles were constantly published regarding the anguish of the LFSCA legislation and its effect on minority localities throughout Michigan. The ethical issue at hand was one of bias.

Almost four years later, I am no longer a resident or a public servant of the city of Detroit but a real estate owner and will always be a DPS high school graduate. The past concern was one of equal justice and the present concern is still one of equal justice. The children in Detroit do not have the ability to determine where they live and unfortunately due to some constraints, the parents may not possess the resources to move away from

Detroit and provide their children with the basic fair educational resources in which they should have equal access. Therefore, the ethical issue is no longer one that may be a concern of bias but the issue at hand presently is to begin to provide the public with the statistical and theoretical foundation that is required to educate not only the legislators and state of Michigan officials who determine the regulations for the educational governing structure but for the constituents to become knowledgeable of the truth of how the emergency management legislation is affecting the educational policy of their children.

Summary

The research and design will consist of utilizing aggregated secondary data from Detroit Public School district, the State of Michigan Department of Education, and Wayne RESA. The dependent variables analyzed was the budget balance, student enrollment (population), standardized assessment, college readiness, and graduation rates. These variables will be analyzed from fiscal years 2007 through 2016. The LFSCA legislation was effective during fiscal year 2009, so it provided an opportunity to review the data, in order to determine if the policies that were developed during fiscal years 2009 through 2016 had an effect on the tested variables. The variables for college readiness, standardized assessment and graduation rates were analyzed by using the χ^2 method of analysis for each subsequent year. The enrollment of student population were analyzed by reviewing the number of total students enrolled in the district for each school year and plotted on a linear graph for each year. Finally, the budget balance was determined by subtracting the district's expenses from the revenue. All of the results were displayed on

a linear graph or table to determine whether there were increases or decreases with each respective dependent variable. A simple method of plotting the data on a linear graph was used to visually acknowledge an increase or decrease in the educational outcomes compared to each year analyzed.

Chapter 4 will begin the process of analyzing the data according to the plan that chapter 3 has developed. Upon conducting the review of the data and reporting the results of the analysis, the details that have been developed will be captured during that time. Proper documentation is required in order to ensure that the results of the analysis are not compromised. If the review cannot proceed as planned, it is important to document the reasons as to why there is a difference in the process, as well as, stating the assumptions made previously and the differences in the analysis that have been made along supportive documentation as to why it was recommended to change the direction of the analysis.

Chapter 4: Analysis

Introduction

The purpose of this study was to determine whether the Michigan's LFSCA, the independent variable, affected the DPS District's education policy outcomes, the dependent variables. I used a χ^2 analysis to determine whether a statistical association existed between the LFSCA legislation, the independent variable, and the dependent variables of the school district's graduation rate, standardized test scores, student retention, budget variances, and college readiness.

The research questions that I analyzed were the following:

1. Is there a statistical association between graduation rate (X_1) before and after the enactment of the LFSCA (Y)?
2. Is there a statistical association between standardized test scores (X_2) before and after the enactment of the LFSCA (Y)?
3. Is there a statistical association between student retention (X_3) before and after the enactment of the LFSCA (Y)?
4. Is there a statistical association between budget variances (X_4) before and after the enactment of the LFSCA (Y)?
5. Is there a statistical association between college readiness (X_5) before and after the enactment of the LFSCA (Y)?

The hypotheses of the study were the following:

H_1 = Graduation rates are statistically associated with the LFSCA.

H_{01} = Graduation rates are not statistically associated with the LFSCA.

H_2 = Standardized test scores are statistically associated with the LFSCA.

H_{02} = Standardized test scores are not statistically associated with the LFSCA.

H_3 = Student population is statistically associated with the LFSCA.

H_{03} = Student population is not statistically associated with the LFSCA.

H_4 = Budgetary variances are statistically associated with the LFSCA.

H_{04} = Budgetary variances are not statistically associated with the LFSCA.

H_5 = College readiness is statistically associated with the LFSCA.

H_{05} = College readiness is not statistically associated with the LFSCA.

In this chapter, I discuss how I collected the data. I also discuss changes in how I conducted the analysis compared with my original research design plan. I then provide a full display of the results. The results include statistical outcomes, explanation of those outcomes, and information on potential variations of the results due to changes in how the aggregate data may have been collected by the school district. In this analysis, I also include information regarding how the data between DPS and the State of Michigan were related to provide a comparison. I do not provide a full analysis for the State of Michigan, but I discuss the similarities or differences between DPS and other school districts throughout the entire state of Michigan.

Data Collection

The data that I used for this study were aggregate data collected between Fiscal Years 2003 through Fiscal Year 2017 by the DPS District. DPS collected the raw data from the schools within its district and reported all of the information to the State of Michigan and Wayne RESA. Wayne RESA compiled all of the local public school information within Wayne County. The State of Michigan assured that the aggregate data were available for public disclosure after the data had been collected. Wayne RESA and the State of Michigan ensured that all information was monitored and was accurate on disclosure to the public. The raw data were not available during this study due to the bureaucracy and non-responsiveness from the DPS District. I made several attempts to contact the school district's staff to inquire about the process and to request additional detailed information.

The data represent aggregate data from Fiscal Year 2003 through Fiscal Year 2017. Data for the periods of Fiscal Year 2003 through Fiscal Year 2017 were available for the school district's student count. Data for the periods of Fiscal Year 2007 through Fiscal Year 2016 were available for college readiness, graduation rate, and the annual fund balances (revenues and expenses). Data for student assessments were available for Fiscal Year 2008 through Fiscal Year 2016.

I downloaded the actual data collection for purposes of this study from the mischooldata.org website between the dates of June 20, 2017, and August 2, 2017. I archived both hard copies and electronic copies of the data used for this study. I transferred the information to an Excel spreadsheet according to its categorized research variable accordingly. I also verified the data on the spreadsheet to ensure that the information was transferred accurately, and I checked the data with several calculations to compare the totals of the spreadsheets versus the data in the electronic and hard copies.

There were no discrepancies in the majority of the data. However, during Fiscal Year 2016, the types of assessments used to assess the students and determine college readiness changed. I addressed this issue in Chapter 3. The outcomes may have skewed the data. The skewed data is noticed easily and an explanation, as well as visual outcome information, was provided. Furthermore, some key variables could not be analyzed using the χ^2 analysis due to there not being enough data to complete a table with a degree of freedom which equated to at least 1. Some data were inconclusive and could not test the hypothesis. However, a visual is provided for the student count per Fiscal Year.

The entire student population between Fiscal Years 2003 through 2017 was used for this study. The Fiscal Years were not represented throughout each dependent variable. The assessments were provided for all enrolled students in grades 2, 3, 4, 5, 6, 7, 8 and 11. College readiness was provided for all enrolled students in grade 11. The entire population was included for the entire district student count. Graduation rates included all 12^{th} grade students that matriculated within a four year high school period. The budget balance consisted of all revenues and expenses that were recorded on the mischooldata.org website. No sampling was used from the data.

During Fiscal Year 2016 for the 11^{th} grade proficiency score, there was an assumption made for this study. The SAT was administered during Fiscal Year 2016 instead of like previous years, in which the ACT had been administered. The year in which the SAT was given to the students, the outcome information was categorically classified differently than that of previous years. During Fiscal Year 2008 through 2015, the ACT categories were proficient, advanced, partially proficient and non-proficient. In Fiscal Year 2016, the SAT category included proficient only. For this study, the assumption was made that the remainder of the students were not proficient. Making the assumption and including the results in the comparison of all of the data had an effect on the outcome of the analysis results. It caused the χ^2 variable to be significantly higher than the other data included in the analysis.

Results

The goal of this study was to determine if there was a statistical association with the LFSCA and graduation rates, standardized test scores, student retention, budget variances and college readiness.

Graduation Rate

Is there a statistical association between graduation rate (X_1) before and after the enactment of the LFSCA (Y)?

H_1 = Graduation rates are statistically associated with the LFSCA.

H_{01} = Graduation rates are not statistically associated with the LFSCA.

Table 1

Detroit Public Schools Graduation Rate

Fiscal year	Graduated	Dropout	Other	Total
2007	5,690	2,921	1,128	9,739
2008	5,594	2,602	1,413	9,609
2009	5,195	1,838	1,676	8,709
2010	4,916	1,507	1,472	7,895
2011	4,297	1,439	1,457	7,193
2012	3,805	1,139	933	5,877
2013	2,666	935	529	4,130
2014	2,351	606	352	3,309
2015	2,555	379	369	3,303
2016	2,483	277	411	3,171
Total	39,552	13,643	9,740	62,935

Note. χ^2 = 13,307; p = .00; critical value = 28.86929943; df = 18.

Between Fiscal Years 2007 to 2016, the graduation rate increased approximately 20% from 58.42% to 78.30%, respectively. According to the results of the analysis for the graduation rate, since the p value was lower than .05, the null hypothesis was rejected.

The χ^2 was significant because its value was the same or more than the critical value. The LFSCA legislation was significantly associated with the increase in the graduation rate.

Table 2

State of Michigan Public Schools Graduation Rate

Fiscal year	Total graduated	Total dropout	Other	Total cohort
2007	105,900	21,185	13,268	140,353
2008	109,542	20,594	14,961	145,097
2009	107,074	16,124	19,124	142,322
2010	104,818	15,277	17,908	138,003
2011	100,096	14,992	19,584	134,672
2012	98,881	13,884	16,924	129,689
2013	98,299	13,463	15,965	127,727
2014	97,664	11,943	14,672	124,279
2015	97,773	11,176	13,595	122,544
2016	97,146	10,865	13,958	121,969
Total	1,017,193	149,503	159,959	1,326,655

Note. χ^2 = 7,427; p = .00; df = 18; critical value = 28.86929943.

An analysis was also conducted for the State of Michigan's Public School District's graduation rate. The graduation rate total for the State of Michigan also included public charter schools throughout the state. The analysis shows that there is a statistical association between the LFSCA legislation and the State of Michigan's public and charter school graduation rate. However, the graduation rate from Fiscal Year 2007 to 2016 increased approximately 4% from 75.45% to 79.65%.

Standardized Test Scores

Is there a statistical association between standardized test scores (X_2) before and after the enactment of the LFSCA (Y)?

H_2 = Standardized test scores are statistically associated with the LFSCA.

H_{02} = Standardized test scores are not statistically associated with the LFSCA.

The data for the standardized scores was filtered based on the individual grade levels of 2, 3, 4, 5, 6, 7, 8 and 11. The types of assessments that were analyzed by grade levels were ELA, Reading, Writing, Mathematics, Social Studies and Science. The MEAP was used to assess students from Fiscal Year 2008 through 2014 for grades 2 through 8. The MME was used to assess students between the Fiscal Years 2008 through 2014 for grade 11. The M-STEP was used to assess students in Fiscal Years 2015 and 2016 for grades 3 through 8 and grade 11. The SAT was during Fiscal Year 2016 to assess students in grade 11 in the Mathematics and ELA subjects only. The 2nd grade was no longer assessed after Fiscal Year 2014 once the M-STEP assessment tool had been adopted.

In order to translate the χ^2 analysis and determination whether or not there is a statistical association between the LFSCA legislation and the student assessment outcomes, the p-value must be less than or equal to alpha or in this case .05 and the χ^2 value must be greater than the critical value, in order to reject the null hypothesis and favor the alternative hypothesis. If the p-value is greater than alpha or in this case .05 and the χ^2 value is less than the critical value, then accept the null hypothesis.

Table 3

Detroit Public Schools Second Grade Mathematics Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2008	MEAP	759	70	1,210	5,586	7,625
2009	MEAP	980	94	1,287	4,575	6,936
2010	MEAP	855	83	1,288	4,048	6,274
2011	MEAP	683	16	1,036	3,830	5,565
2012	MEAP	444	9	857	3,372	4,682
2013	MEAP	536	30	622	2,409	3,597
2014	MEAP	471	53	630	2,426	3,580
	Total	4,728	355	6,930	26,246	38,259

Note. $\chi^2 = 302.781795$; $p = .00$; $df = 18$; critical value = 28.86929943.

The proficiency rate for 2nd grade mathematics increased from 10.87% in Fiscal Year 2008 to 14.64% in Fiscal Year 2014. Based on the χ^2analysis conducted for this period, the LFSCA legislation has a statistical association with the increase of the mathematic assessment for the 2nd grade students within the school district, so the null hypothesis has been rejected.

Table 4

State of Michigan Public Schools Second Grade Mathematics Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2008	MEAP	32,680	5,953	28,510	48,417	115,560
2009	MEAP	37,005	8,884	27,419	42,024	115,332
2010	MEAP	35,284	5,695	30,229	41,797	113,005
2011	MEAP	35,843	2,512	30,492	41,212	110,059
2012	MEAP	36,643	2,587	30,087	38,894	108,211
2013	MEAP	40,008	4,383	25,375	38,791	108,557
2014	MEAP	34,193	8,279	25,281	38,042	105,795
	Total	251,656	38,293	197,393	289,177	776,519

Note. $\chi^2 = 9{,}988.74$; $p = .00$; $df = 18$; critical value = 28.86929943.

The mathematic assessment proficiency rate for the State of Michigan increased from 33.43% in Fiscal Year 2008 to 40.15% in Fiscal Year 2014. The trend for the positive proficiency rate seems to be in alignment with that of the Detroit Public School District. There was a statistical association with the assessment data for the 2nd grade throughout the state and LFSCA legislation.

Table 5

Detroit Public Schools Second Grade Reading Assessment Results

Fiscal Year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2008	MEAP	2,187	426	2,482	2,485	7,580
2009	MEAP	2,088	306	2,547	1,955	6,896
2010	MEAP	2,398	337	2,222	1,311	6,268
2011	MEAP	1,891	129	1,850	1,713	5,583
2012	MEAP	1,455	82	1,901	1,262	4,700
2013	MEAP	1,447	97	1,147	928	3,619
2014	MEAP	1,172	98	1,582	742	3,594
	Total	12,638	1,475	13,731	10,396	38,240

Note. $\chi^2 = 799.23$; $p = .00$; $df = 18$; critical value = 28.86929943.

There was a slight increase in the reading assessment proficiency rate from 34.47% in Fiscal Year 2008 to 35.34% in Fiscal Year 2014. According to the results of the χ^2 analysis, the null hypothesis was rejected and there was a statistical association between the increase in school district's 2nd grade reading assessment proficiency and the LFSCA legislation.

Table 6

State of Michigan Public Schools Second Grade Reading Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2008	MEAP	49,160	17,889	28,833	18,988	114,870
2009	MEAP	53,402	14,134	31,503	15,552	114,591
2010	MEAP	60,602	11,893	28,455	11,425	112,375
2011	MEAP	59,993	9,437	25,947	14,558	109,935
2012	MEAP	56,687	10,415	29,069	11,426	107,597
2013	MEAP	61,822	9,920	23,569	12,521	107,832
2014	MEAP	55,646	8,767	30,885	9,712	105,010
	Total	397,312	82,455	198,261	94,182	772,210

Note. χ^2 = 12,559.09418; p = .00; df = 18; critical value = 28.86929943.

The reading assessment proficiency increased from 58.37% in Fiscal Year 2008 to 61.34% in Fiscal Year 2014. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the increase in the reading assessment proficiency and the LFSCA legislation.

Table 7

Detroit Public Schools Third Grade ELA Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2015	M-STEP	323	109	827	2,444	3,703
2016	M-STEP	234	109	609	2,508	3,460
	Total	557	218	1,436	4,952	7,163

Note. χ^2 = 39.945032; p = .00; df = 3; critical value =7.81472979.

The district's 3rd grade ELA assessment proficiency rate decreased from 11.67% in Fiscal Year 2015 to 9.91% in Fiscal Year 2016. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the decrease in the ELA assessment proficiency and the LFSCA legislation.

Table 8

State of Michigan Public Schools Third Grade ELA Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially Proficient	Not Proficient	Number Assessed
2015	M-STEP	27,151	26,490	27,731	25,806	107,178
2016	M-STEP	24,393	25,268	26,804	31,499	107,964
	Total	51,544	51,758	54,535	57,305	215,142

Note. $\chi^2 = 754.89589$; $p = .00$; $df = 3$; critical value = 7.8147279.

The state's 3rd grade ELA assessment proficiency rate decreased from 50.05% in Fiscal Year 2015 to 46.00% in Fiscal Year 2016. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the decrease in the ELA assessment proficiency and the LFSCA legislation.

Table 9

Detroit Public Schools Third Grade Mathematics Assessment Results

Fiscal Year	Assessment Type	Proficient	Advanced	Partially Proficient	Not Proficient	Number Assessed
2008	MEAP	911	31	916	5,514	7,372
2009	MEAP	1,120	67	1,155	4,384	6,726
2010	MEAP	1,080	86	932	4,024	6,122
2011	MEAP	769	32	729	4,020	5,550
2012	MEAP	497	9	598	3,444	4,548
2013	MEAP	616	52	418	2,462	3,548
2014	MEAP	524	48	463	2,281	3,316
2015	M-STEP	399	72	896	2,314	3,681
2016	M-STEP	312	46	726	2,344	3,428
	Total	6,228	443	6,833	30,787	44,291

Note. $\chi^2 = 888.48762$; $p = .00$; $df = 24$; critical value = 36.415029.

The district's 3rd grade mathematics assessment proficiency rate decreased from 12.78% in Fiscal Year 2008 to 10.34% in Fiscal Year 2016. The results of the analysis rejected

the null hypothesis and showed that there was a statistical association between the decrease in the mathematics assessment proficiency and the LFSCA legislation.

Table 10

State of Michigan Schools Third Grade Mathematics Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2008	MEAP	31,677	3,235	28,232	58,619	121,763
2009	MEAP	40,651	4,899	24,465	44,175	114,190
2010	MEAP	40,457	6,737	21,861	44,681	113,736
2011	MEAP	39,684	5,069	21,538	46,628	112,919
2012	MEAP	38,067	5,086	20,998	44,056	108,207
2013	MEAP	40,324	8,850	16,438	41,113	106,725
2014	MEAP	38,322	10,448	17,804	41,094	107,668
2015	M-STEP	33,449	19,001	29,822	25,216	107,488
2016	M-STEP	31,586	17,239	29,736	29,479	108,040
	Total	334,217	80,564	210,894	375,061	1,000,736

Note. χ^2 = 56,629.669; p = .00; df = 24; critical value = 36.415029.

The state's 3rd grade mathematics assessment proficiency rate increased from 28.67% in Fiscal Year 2008 to 45.19% in Fiscal Year 2016. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the increase in the mathematics assessment proficiency and the LFSCA legislation.

Table 11

Detroit Public Schools Third Grade Reading Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2008	MEAP	2,341	203	2,532	2,239	7,315
2009	MEAP	2,038	36	2,409	2,187	6,670
2010	MEAP	2,249	193	2,022	1,645	6,109
2011	MEAP	1,890	91	2,084	1,491	5,556
2012	MEAP	1,636	79	1,586	1,251	4,552
2013	MEAP	1,420	23	1,488	617	3,548
2014	MEAP	1,356	58	1,010	894	3,318
	Total	12,930	683	13,131	10,324	37,068

Note. χ^2 = 613.47712; p = .00; df = 18; critical value = 28.86929943.

The district's 3rd grade reading assessment proficiency rate increased from 34.78% in Fiscal Year 2008 to 42.62% in Fiscal Year 2014. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the increase in the reading assessment proficiency and the LFSCA legislation.

Table 12

State of Michigan Public Schools Third Grade Reading Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially Proficient	Not Proficient	Number Assessed
2008	MEAP	48,488	20,354	22,128	24,401	115,371
2009	MEAP	64,744	3,741	28,873	16,149	113,507
2010	MEAP	63,022	13,128	24,114	12,781	113,045
2011	MEAP	63,554	7,927	28,705	12,363	112,549
2012	MEAP	63,882	8,780	23,960	10,766	107,388
2013	MEAP	66,744	5,302	26,310	7,475	105,831
2014	MEAP	67,104	7,542	21,082	10,926	106,654
	Total	437,538	66,774	175,172	94,861	774,345

Note. χ^2 = 37,370.93; p = .00; df = 18; critical value = 28.86929943.

The state's 3rd grade reading assessment proficiency rate increased from 59.67% in Fiscal Year 2008 to 69.99% in Fiscal Year 2014. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the increase in the reading assessment proficiency and the LFSCA legislation.

Table 13

Detroit Public Schools Third Grade Writing Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2011	MEAP	1,019	118	3,558	861	5,556
2012	MEAP	789	60	3,175	523	4,547
2013	MEAP	643	48	2,418	439	3,548
2014	MEAP	828	81	2,028	383	3,320
	Total	3,279	307	11,179	2,206	16,971

Note. χ^2 = 158.23756; p = .00; df = 9; critical value = 16.918978.

The district's 3rd grade writing assessment proficiency rate increased from 20.46% in Fiscal Year 2011 to 27.39% in Fiscal Year 2014. The results of the analysis rejected the

null hypothesis and showed that there was a statistical association between the increase in the writing assessment proficiency and the LFSCA legislation.

Table 14

State of Michigan Public Schools Third Grade Writing Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2011	MEAP	40,187	12,908	53,782	5,575	112,452
2012	MEAP	40,278	7,486	56,056	3,510	107,330
2013	MEAP	37,164	12,343	51,996	4,436	105,939
2014	MEAP	43,750	10,159	48,772	4,155	106,836
	Total	161,379	42,896	210,606	17,676	432,557

Note. χ^2 = 57,530.86; p = .00; df = 9; critical value = 16.918978.

The state's 3rd grade writing assessment proficiency rate increased from 47.22% in Fiscal Year 2011 to 50.46% in Fiscal Year 2014. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the increase in the writing assessment proficiency and the LFSCA legislation.

Table 15

Detroit Public Schools Fourth Grade ELA Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2015	M-STEP	284	110	532	2,492	3,418
2016	M-STEP	259	126	553	2,604	3,542
	Total	543	236	1,085	5,096	6,960

Note. χ^2 = 2.89547; p = .099624; df = 3; critical value = 7.81473.

The district's 4th grade ELA assessment proficiency rate decreased from 11.53% in Fiscal Year 2015 to 10.87% in Fiscal Year 2015. The results of the analysis accepted the null

hypothesis and showed that there was not a statistical association between the decrease in the ELA assessment proficiency and the LFSCA legislation.

Table 16

State of Michigan Public Schools Fourth Grade ELA Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2015	M-STEP	25,929	23,423	24,083	32,546	105,981
2016	M-STEP	23,852	25,916	23,951	33,723	107,442
	Total	49,781	49,339	48,034	66,269	213,423

Note. $\chi^2 = 223.901$; $p = .00$; $df = 3$; critical value = 7.81473.

The state's 4th grade ELA assessment proficiency rate decreased from 46.57% in Fiscal Year 2015 to 46.32% in Fiscal Year 2016. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the decrease in the ELA assessment proficiency and the LFSCA legislation.

Table 17

Detroit Public Schools Fourth Grade Mathematics Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2008	MEAP	819	36	810	5,705	7,370
2009	MEAP	819	32	935	4,912	6,698
2010	MEAP	969	51	1,006	3,932	5,958
2011	MEAP	735	22	855	3,836	5,448
2012	MEAP	511	12	718	3,362	4,603
2013	MEAP	556	31	475	2,382	3,444
2014	MEAP	497	16	513	2,297	3,323
2015	M-STEP	217	44	880	2,278	3,419
2016	M-STEP	211	41	1,041	2,201	3,494
	Total	5,334	285	7,233	30,905	43,757

Note. $\chi^2 = 1{,}285.43$; $p = .00$; $df = 24$; critical value = 36.4150285.

The district's 4th grade mathematics assessment proficiency rate decreased from 11.60% in Fiscal Year 2008 to 7.21% in Fiscal Year 2016. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the decrease in the mathematics assessment proficiency and the LFSCA legislation.

Table 18

State of Michigan Public Schools Fourth Grade Mathematics Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2008	MEAP	38,812	42,22	20,787	51,881	115,702
2009	MEAP	38,554	5,523	22,660	48,242	114,979
2010	MEAP	38,488	6,751	22,834	44,951	113,024
2011	MEAP	38,788	5,157	25,490	44,799	114,234
2012	MEAP	38,762	5,232	24,717	42,364	111,075
2013	MEAP	42,844	6,013	18,292	39,699	106,848
2014	MEAP	41,753	6,199	19,984	38,122	106,058
2015	M-STEP	27,751	16,199	36,570	25,711	106,231
2016	M-STEP	28,898	18,372	37,360	22,871	107,501
	Total	334,650	73,668	22,8694	35,8640	995,652

Note. $\chi^2 = 67{,}224.0548$; $p = .00$; $df = 24$; critical value = 36.4150285.

The state's 4th grade mathematics assessment proficiency rate increased from 37.19% in Fiscal Year 2008 to 43.97% in Fiscal Year 2016. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the increase in the mathematics assessment proficiency and the LFSCA legislation.

Table 19

Detroit Public Schools Fourth Grade Reading Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2008	MEAP	1,715	411	1,713	3,477	7,316
2009	MEAP	1,684	186	1,917	2,835	6,622
2010	MEAP	1,889	298	1,683	2,076	5,946
2011	MEAP	1,967	236	1,359	1,887	5,449
2012	MEAP	1,695	179	1,336	1,411	4,621
2013	MEAP	1,420	118	946	969	3,453
2014	MEAP	1,305	141	1,041	833	3,320
		11,675	1,569	9,995	13,488	36,727

Note. χ^2 = 1,181.48; p = .00; df = 18; critical value = 28.86929943.

The district's 4th grade reading assessment proficiency rate increased from 29.06% in Fiscal Year 2008 to 43.55% in Fiscal Year 2014. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the increase in the reading assessment proficiency and the LFSCA legislation.

Table 20

State of Michigan Public Schools Fourth Grade Reading Assessments Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2008	MEAP	63,044	9,541	27,345	15,020	114,950
2009	MEAP	55,185	11,796	26,308	21,074	114,363
2010	MEAP	57,496	15,955	22,365	16,692	112,508
2011	MEAP	60,820	13,576	22,536	16,990	113,922
2012	MEAP	61,883	14,033	21,291	13,159	110366
2013	MEAP	61,408	13,353	19,155	12,295	106,211
2014	MEAP	56,449	19,032	20,258	9,563	1053,02
		416,285	97,286	159,258	104,793	777,622

Note. χ^2 = 12,113.10; p = .00; df = 18; critical value = 28.86929943.

The state's 4th grade reading assessment proficiency rate increased from 63.14% in Fiscal Year 2008 to 71.68% in Fiscal Year 2014. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the increase in the reading assessment proficiency and the LFSCA legislation.

Table 21

Detroit Public Schools Fourth Grade Science Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2008	MEAP	146	130	1,206	5,848	7,330
2009	MEAP	189	119	1,384	4,986	6,678
2010	MEAP	166	102	1,078	4,619	5,965
2011	MEAP	131	70	766	4,476	5,443
2012	MEAP	73	60	526	4,046	4,705
2013	MEAP	64	17	533	2,977	3,591
2014	MEAP	75	25	443	2,921	3,464
2015	M-STEP	32	15	308	3,016	3,371
2016	M-STEP	42	22	325	3,143	3,532
	Total	918	560	6,569	36,032	44,079

Note. $\chi^2 = 702.742$; $p = .00$; $df = 24$; critical value = 36.415.

The district's 4th grade science assessment proficiency rate decreased from 3.77% in Fiscal Year 2008 to 1.81% in Fiscal Year 2016. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the decrease in the science assessment proficiency and the LFSCA legislation.

Table 22

State of Michigan Public Schools Fourth Grade Science Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2008	MEAP	7,916	8,709	40,455	58,944	116,024
2009	MEAP	11,623	9,965	41,960	51,482	115,030
2010	MEAP	9,935	7,807	39,256	56,870	113,868
2011	MEAP	10,663	9,180	35,190	59,335	114,368
2012	MEAP	9,240	8,063	33,937	61,511	112,751
2013	MEAP	9,001	5,350	37,961	57,243	109,555
2014	MEAP	11,893	6,462	34,494	56,499	109,248
2015	M-STEP	6,934	6,175	32,346	60,524	105,979
2016	M-STEP	7,860	7,902	32,874	58,731	107,367
	Total	85,065	69,613	328,473	521,139	1,004,190

Note. χ^2 = 7,767.79; p = .00; df = 24; critical value = 36.415.

The state's 4th grade science assessment proficiency rate increased from 14.33% in Fiscal Year 2008 to 14.68% in Fiscal Year 2016. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the increase in the science assessment proficiency and the LFSCA legislation.

Table 23

Detroit Public Schools Fifth Grade ELA Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2015	M-STEP	325	71	562	2,168	3,126
2016	M-STEP	351	67	692	2,150	3,260
	Total	676	138	1,254	4,318	6,386

Note. χ^2 = 11.8613; p = .45688; df = 3; critical value = 7.81473.

The district's 5th grade ELA assessment proficiency rate increased from 12.67% in Fiscal Year 2015 to 12.82% in Fiscal Year 2016. The results of the analysis accepted the null

hypothesis and showed that there was not a statistical association between the increase in the ELA assessment proficiency and the LFSCA legislation.

Table 24

State of Michigan Schools Fifth Grade ELA Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2015	M-STEP	35,109	17,956	26,051	29,886	109,002
2016	M-STEP	34,704	19,115	26,220	26,375	106,414
	Total	69,813	37,071	52,271	56,261	215,416

Note. $\chi^2 = 227.178$; $p = .00$; $df = 3$; critical value = 7.81473.

The state's 5th grade ELA assessment proficiency rate increased from 48.68% in Fiscal Year 2015 to 50.58% in Fiscal Year 2016. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the increase in the ELA assessment proficiency and the LFSCA legislation.

Table 25

Detroit Public Schools Fifth Grade Mathematics Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2008	MEAP	483	19	780	5,775	7,057
2009	MEAP	667	51	1,060	4,457	6,235
2010	MEAP	527	27	924	4,090	5,568
2011	MEAP	591	40	853	3,498	4,982
2012	MEAP	530	40	806	2,984	4,360
2013	MEAP	417	20	509	2,267	3,213
2014	MEAP	443	34	425	2,323	3,225
2015	M-STEP	96	32	532	2,496	3,156
2016	M-STEP	67	14	457	2,670	3,208
	Total	3,821	277	6,346	30,560	41,004

Note. $\chi^2 = 900.536$; $p = .00$; $df = 24$; critical value = 36.415.

The district's 5th grade mathematics assessment proficiency rate decreased from 7.11% in Fiscal Year 2008 to 2.52% in Fiscal Year 2016. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the decrease in the mathematics assessment proficiency and the LFSCA legislation.

Table 26

State of Michigan Public Schools Fifth Grade Mathematics Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2008	MEAP	35,256	3,955	21,499	55,336	116,046
2009	MEAP	40,473	4,951	26,716	44,130	116,270
2010	MEAP	36,852	6,728	27,288	43,629	114,497
2011	MEAP	37,853	3,481	28,128	44,675	114,137
2012	MEAP	37,835	3,986	28,343	42,683	112,847
2013	MEAP	38,223	6,071	22,816	43,204	110,314
2014	MEAP	34,787	9,552	20,080	42,456	106,875
2015	M-STEP	19,404	17,009	33,548	39,194	109,155
2016	M-STEP	19,381	16,604	32,851	37,595	106,431
	Total	300,064	72,337	241,269	392,902	1,006,572

Note. $\chi^2 = 54{,}710.9$; $p = .00$; $df = 24$; critical value = 36.415.

The state's 5th grade mathematics assessment proficiency rate slightly increased by .02% from 33.79% in Fiscal Year 2008 to 33.81% in Fiscal Year 2016. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the slight increase in the mathematics assessment proficiency and the LFSCA legislation.

Table 27

Detroit Public Schools Fifth Grade Reading Assessment Result

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2008	MEAP	1,516	108	1,788	3,569	6,981
2009	MEAP	1,455	258	1,439	3,042	6,194
2010	MEAP	2,007	259	1,760	1,555	5,581
2011	MEAP	1,273	245	1,164	2,304	4,986
2012	MEAP	1,371	279	1,066	1,668	4,384
2013	MEAP	1,155	301	751	1,004	3,211
2014	MEAP	1,206	245	812	970	3,233
	Total	9,983	1,695	8,780	14,112	34,570

Note. χ^2 = 1,645.33; p = .00; df = 18; critical value = 28.86929943.

The district's 5th grade reading assessment proficiency rate significantly increased by 21.62% from 23.26% in Fiscal Year 2008 to 44.88% in Fiscal Year 2014. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the huge increase in the reading assessment proficiency and the LFSCA legislation.

Table 28

State of Michigan Public Schools Fifth Grade Reading Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2008	MEAP	52,077	11,156	28,809	29,268	121,310
2009	MEAP	47,286	18,869	23,194	26,385	115,734
2010	MEAP	60,407	14,114	25,591	14,068	114,180
2011	MEAP	50,342	21,671	20,465	21,493	113,971
2012	MEAP	51,000	24,392	19,760	17,372	112,524
2013	MEAP	50,013	24,911	19,070	15,828	109,822
2014	MEAP	51,970	24,151	17,458	12,851	106,430
	Total	363,095	139,264	154,347	137,265	793,971

Note. χ^2 = 25,858.7; p = .00; df = 18; critical value = 28.86929943.

The state's 5th grade reading assessment proficiency rate significantly increased by 19.39% from 52.13% in Fiscal Year 2008 to 71.52% in Fiscal Year 2014. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the huge increase in the reading assessment proficiency and the LFSCA legislation.

Table 29

Detroit Public Schools Fifth Grade Social Studies Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2009	MEAP	578	127	2,923	2,561	6,189
2010	MEAP	502	85	2,299	2,676	5,562
2011	MEAP	460	105	2,578	1,811	4,954
2012	MEAP	295	98	2,430	1,676	4,499
2013	MEAP	264	34	1,564	1,517	3,379
2014	MEAP	215	60	1,725	1,346	3,346
2015	M-STEP	92	8	1,412	1,581	3,093
2016	M-STEP	89	1	1,441	1,719	3,250
	Total	2,495	518	16,372	14,887	34,272

Note. $\chi^2 = 548.164$; $p = .00$; $df = 21$; critical value = 32.67057334.

The district's 5th grade social studies assessment proficiency rate decreased from 11.39% in Fiscal Year 2009 to 2.77% in Fiscal Year 2016. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the decrease in the social studies assessment proficiency and the LFSCA legislation.

Table 30

State of Michigan Public Schools Fifth Grade Social Studies Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2008	MEAP	31,109	10,969	53,108	22,782	117,968
2009	MEAP	33,059	7,999	54,276	20,941	116,275
2010	MEAP	31,119	7,861	53,705	22,847	115,532
2011	MEAP	28,922	3,278	66,484	15,795	114,479
2012	MEAP	28,553	3,345	67,664	15,450	115,012
2013	MEAP	29,516	4,120	56,436	23,302	113,374
2014	MEAP	25,096	4,175	61,100	20,123	110,494
2015	M-STEP	20,349	3,919	63,345	21,500	109,113
2016	M-STEP	17,191	2,922	63,993	22,438	106,544
	Total	244,914	48,588	540,111	185,178	1,018,791

Note. χ^2 = 26,930.4; p = .00; df = 24; critical value = 36.415.

The state's 5th grade social studies assessment proficiency rate decreased from 35.67% in Fiscal Year 2008 to 18.88% in Fiscal Year 2016. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the decrease in the social studies assessment proficiency and the LFSCA legislation.

Table 31

Detroit Public Schools Sixth Grade ELA Assessment Results

Fiscal Year	Assessment Type	Proficient	Advanced	Partially Proficient	Not Proficient	Number Assessed
2015	M-STEP	294	41	690	2,023	3,048
2016	M-STEP	206	40	582	2,087	2,915
	Total	500	81	1,272	4,,110	5,963

Note. χ^2 = 22.7116; p = .00; df = 3; critical value = 7.81473.

The district's 6th grade ELA assessment proficiency rate decreased from 10.99% in Fiscal Year 2015 to 8.44% in Fiscal Year 2016. The results of the analysis rejected the null

hypothesis and showed that there was a statistical association between the decrease in the ELA assessment proficiency and the LFSCA legislation.

Table 32

State of Michigan Public Schools Sixth Grade ELA Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2015	M-STEP	34,296	13,930	30,606	28,966	107,798
2016	M-STEP	31,962	17,387	29,628	30,720	109,697
	Total	66,258	31,317	60,234	59,686	217,495

Note. $\chi^2 = 514.709$; $p = .00$; $df = 3$; critical value = 7.81473.

The state's 6th grade ELA assessment proficiency rate was slightly increased by .025% from 44.74% in Fiscal Year 2015 to 44.99% in Fiscal Year 2016. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the slight increase in the ELA assessment proficiency and the LFSCA legislation.

Table 33

Detroit Public Schools Sixth Grade Mathematics Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2008	MEAP	521	27	979	5,839	7,366
2009	MEAP	569	17	1,120	4,418	6,124
2010	MEAP	487	28	887	3,994	5,396
2011	MEAP	495	19	981	3,540	5,035
2012	MEAP	391	8	748	3,053	4,200
2013	MEAP	417	12	682	2,144	3,255
2014	MEAP	342	23	580	2,141	3,086
2015	M-STEP	118	39	596	2,292	3,045
2016	M-STEP	91	21	507	2,277	2,896
	Total	3,431	194	7,080	29,698	40,403

Note. $\chi^2 = 584.423$; $p = .00$; $df = 24$; critical value = 36.415.

The district's 6th grade mathematics assessment proficiency rate decreased from 7.44% in Fiscal Year 2008 to 3.87% in Fiscal Year 2016. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the decrease in the ELA assessment proficiency and the LFSCA legislation.

Table 34

State of Michigan Public Schools Sixth Grade Mathematics Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2008	MEAP	34,636	6,560	21,977	54,752	117,925
2009	MEAP	39,708	4,252	31,677	42,247	117,884
2010	MEAP	38,216	6,261	27,228	43,897	115,602
2011	MEAP	37,057	4,483	29,325	44,891	115,756
2012	MEAP	37,447	4,663	28,098	42,907	113,115
2013	MEAP	36,106	6,743	27,105	42,442	112,396
2014	MEAP	37,581	5,776	25,692	41,694	110,743
2015	M-STEP	19,741	16,140	36,312	35,677	107,870
2016	M-STEP	19,936	16,030	36,263	37,513	109,742
	Total	300,428	70,908	263,677	386,020	1,021,033

Note. χ^2 = 49,118.2; p = .00; df = 24; critical value = 36.415.

The district's 6th grade mathematics assessment proficiency rate decreased from 34.93% in Fiscal Year 2008 to 32.77% in Fiscal Year 2016. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the decrease in the ELA assessment proficiency and the LFSCA legislation.

Table 35

Detroit Public Schools Sixth Grade Reading Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2008	MEAP	1,237	110	1,828	4,113	7,288
2009	MEAP	1,622	165	1,951	2,319	6,057
2010	MEAP	1,327	156	2,057	1,892	5,432
2011	MEAP	1,073	133	1,424	2,410	5,040
2012	MEAP	1,070	171	1,268	1,697	4,206
2013	MEAP	968	110	975	1,211	3,264
2014	MEAP	802	99	968	1,222	3,091
	Total	8,099	944	10,471	14,864	34,378

Note. $\chi^2 = 983.685$; $p = .00$; $df = 18$; critical value = 28.86929943.

The district's 6th grade reading assessment proficiency rate increased from 18.48% in Fiscal Year 2008 to 29.15% in Fiscal Year 2014. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the decrease in the reading assessment proficiency and the LFSCA legislation.

Table 36

State of Michigan Public Schools Sixth Grade Reading Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2008	MEAP	54,924	10,699	26,196	25,593	117,412
2009	MEAP	54,670	12,712	29,949	20,192	117,523
2010	MEAP	50,018	14,896	32,967	17,521	115,402
2011	MEAP	48,455	15,852	27,146	24,243	115,696
2012	MEAP	50,481	16,831	26,340	19,134	112,786
2013	MEAP	53,797	15,807	24,806	17,798	112,208
2014	MEAP	49,297	17,396	26,985	16,701	110,379
	Total	361,642	104,193	194,389	141,182	801,406

Note. $\chi^2 = 7{,}920.281$; $p = .00$; $df = 18$; critical value = 28.86929943.

The state's 6th grade reading assessment proficiency rate increased from 55.89% in Fiscal Year 2008 to 60.42% in Fiscal Year 2014. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the increase in the reading assessment proficiency and the LFSCA legislation.

Table 37

Detroit Public Schools Sixth Grade Writing Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2011	MEAP	926	104	2,793	1,235	5,058
2012	MEAP	706	87	2,570	837	4,200
2013	MEAP	811	101	1,761	586	3,259
2014	MEAP	703	29	1,858	505	3,095
	Total	3,146	321	8,982	3,163	15,612

Note. $\chi^2 = 214.471$; $p = .00$; $df = 9$; critical value = 16.91898.

The district's 6th grade writing assessment proficiency rate increased from 20.36% in Fiscal Year 2011 to 23.65% in Fiscal Year 2014. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the increase in the writing assessment proficiency and the LFSCA legislation.

Table 38

State of Michigan Public Schools Sixth Grade Writing Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2011	MEAP	44,150	11,124	51,418	8,934	115,626
2012	MEAP	42,013	11,318	51,787	7,632	112,750
2013	MEAP	46,812	11,253	45,350	8,852	112,267
2014	MEAP	49,712	8,898	45,766	6,161	110,537
	Total	182,687	42,593	194,321	31,579	451,180

Note. $\chi^2 = 2{,}411.968$; $p = .00$; $df = 9$; critical value = 16.91898.

The state's 6th grade writing assessment proficiency rate increased from 47.80% in Fiscal Year 2011 to 53.02% in Fiscal Year 2014. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the increase in the writing assessment proficiency and the LFSCA legislation.

Table 39

Detroit Public Schools Seventh Grade ELA Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2015	M-STEP	396	60	709	1,743	2,908
2016	M-STEP	291	42	661	1,801	2,795
	Total	687	102	1,370	3,544	5,703

Note. $\chi^2 = 19.6242$; $p = .00$; $df = 3$; critical value = 7.8147279.

The district's 7th grade ELA assessment proficiency rate decreased from 15.68% in Fiscal Year 2015 to 11.91% in Fiscal Year 2016. The results of the analysis accepted the null hypothesis and showed that there was not a statistical association between the decrease in the ELA assessment proficiency and the LFSCA legislation.

Table 40

State of Michigan Public Schools Seventh Grade ELA Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2015	M-STEP	39,966	13,555	28,567	26,856	108,944
2016	M-STEP	35,903	15,336	30,055	27,528	108,822
	Total	75,869	28,891	58,622	54,384	217,766

Note. $\chi^2 = 373.3810282$; $p = .00$; $df = 3$; critical value = 7.8147279.

The state's 7th grade ELA assessment proficiency rate decreased from 49.13% in Fiscal Year 2015 to 47.09% in Fiscal Year 2016. The results of the analysis rejected the null

hypothesis and showed that there was a statistical association between the decrease in the ELA assessment proficiency and the LFSCA legislation.

Table 41

Detroit Public Schools Seventh Grade Mathematics Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient
2008	MEAP	315	22	1,299	5,841
2009	MEAP	417	43	1,260	4,651
2010	MEAP	320	40	1,068	3,773
2011	MEAP	289	21	972	3,436
2012	MEAP	273	24	880	2,941
2013	MEAP	288	60	646	2,139
2014	MEAP	315	54	529	2,126
2015	M-STEP	144	40	605	2,126
2016	M-STEP	109	35	525	2,128
	Total	2,470	339	7,784	29,161

Note. $\chi^2 = 428.255$; $p = .00$; $df = 24$; critical value = 36.415.

The district's 7th grade mathematics assessment proficiency rate increased from 4.51% in Fiscal Year 2008 to 5.15% in Fiscal Year 2016. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the increase in the mathematic assessment proficiency and the LFSCA legislation.

Table 42:

State of Michigan Public Schools Seventh Grade Mathematics Assessments Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2008	MEAP	26,633	6,907	35,569	53,688	122797
2009	MEAP	29,344	9,086	33,084	48,539	120,053
2010	MEAP	27,540	7,507	34,722	46,239	116,008
2011	MEAP	28,040	5,347	35,857	46,358	115,602
2012	MEAP	27,575	5,871	35,653	44,626	113,725
2013	MEAP	29,458	9,129	29,397	43,764	111,748
2014	MEAP	30,666	7,973	26,466	46,852	111,957
2015	M-STEP	21,716	14,537	34,624	38,135	109,012
2016	M-STEP	20,677	17,711	31,251	39,200	108,839
	Total	241,649	84,068	296,623	407,401	1,029,741

Note. χ^2 = 23,694.20; p = .00; df = 24; critical value = 36.415.

The state's 7th grade mathematics assessment proficiency rate increased from 27.31% in Fiscal Year 2008 to 35.27% in Fiscal Year 2016. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the increase in the mathematic assessment proficiency rate and the LFSCA legislation.

Table 43

Detroit Public Schools Seventh Grade Reading Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2008	MEAP	1,586	212	2,424	3,191	7,413
2009	MEAP	1,493	158	2,092	2,593	6,336
2010	MEAP	1,533	247	2,093	1,333	5,206
2011	MEAP	1,290	113	1,729	1,612	4,744
2012	MEAP	1,269	164	1,611	1,099	4,143
2013	MEAP	1,274	162	1,120	576	3,132
2014	MEAP	1,099	339	875	727	3,040
	Total	9,544	1,395	11,944	11,131	34,014

Note. χ^2 = 1,795.54; p = .00; df = 18; critical value = 28.86929943.

The district's 7th grade reading assessment proficiency rate greatly increased 23.05% from 24.25% in Fiscal Year 2008 to 47.30% in Fiscal Year 2014. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the increase in the reading assessment proficiency and the LFSCA legislation.

Table 44

State of Michigan Public Schools Seventh Grade Reading Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2008	MEAP	51,151	13,670	33,727	23,870	122,418
2009	MEAP	50,963	11,329	32,243	25,135	119,670
2010	MEAP	51,339	14,026	34,850	15,721	115,936
2011	MEAP	53,757	10,926	33,504	17,364	115,551
2012	MEAP	56,298	12,430	31,855	12,993	113,576
2013	MEAP	59,567	13,812	27,416	10,870	111,665
2014	MEAP	50,034	31,346	19,369	11,130	111,879
	Total	373,109	107,539	212,964	117,083	810,695

Note. χ^2 = 39,043.8; p = .00; df = 18; critical value = 28.86929943.

The state's 7th grade reading assessment proficiency rate greatly increased 19.79% from 52.95% in Fiscal Year 2008 to 72.74% in Fiscal Year 2014. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the increase in the reading assessment proficiency and the LFSCA legislation.

Table 45

Detroit Public Schools Seventh Grade Science Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2008	MEAP	149	49	864	6,367	7,429
2009	MEAP	229	49	674	5,366	6,318
2010	MEAP	72	18	424	4,677	5,191
2011	MEAP	88	9	494	4,081	4,672
2012	MEAP	79	11	406	3,779	4,275
2013	MEAP	106	7	430	2,709	3,252
2014	MEAP	106	20	386	2,640	3,152
2015	M-STEP	66	14	241	2,613	2,934
2016	M-STEP	68	12	234	2,488	2,802
	Total	963	189	4,153	34,720	40,025

Note. $\chi^2 = 259.514$; $p = .00$; $df = 24$; critical value = 36.415.

The district's 7th grade science assessment proficiency slightly increased by .19% from 2.67% in Fiscal Year 2008 to 2.86% in Fiscal Year 2016. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the increase in the science assessment proficiency and the LFSCA legislation.

Table 46

State of Michigan Public Schools Seventh Grade Science Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2008	MEAP	14,617	8,548	34,575	65,040	122,780
2009	MEAP	16,369	8,316	27,306	67,849	119,840
2010	MEAP	12,431	5,785	28,170	70,434	116,820
2011	MEAP	12,515	4,761	29,702	68,640	115,618
2012	MEAP	14,690	4,325	28,933	67,364	115,312
2013	MEAP	13,543	4,559	29,727	66,295	114,124
2014	MEAP	15,508	7,199	29,484	62,724	114,915
2015	M-STEP	16,002	8,787	25,397	59,041	109,227
2016	M-STEP	16,032	9,939	25,948	56,959	108,878
	Total	131,707	62,219	259,242	584,346	1,037,514

Note. χ^2 = 9,646.95; p = .00; df = 24; critical value = 36.415.

The state's 7th grade science assessment proficiency increased from 18.87% in Fiscal Year 2008 to 23.85% in Fiscal Year 2016. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the increase in the science assessment proficiency and the LFSCA legislation.

Table 47

Detroit Public Schools Eighth Grade ELA Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2015	M-STEP	421	52	919	1,359	2,751
2016	M-STEP	415	75	715	1,532	2,737
	Total	836	127	1,634	2,891	5,488

Note. χ^2 = 39.9942; p = .00; df = 3; critical value = 7.81473.

The district's 8th grade ELA assessment proficiency slightly increased by .71% from 17.19% in Fiscal Year 2015 to 17.90% in Fiscal Year 2016. The results of the analysis

rejected the null hypothesis and showed that there was a statistical association between the slight increase in the ELA assessment proficiency and the LFSCA legislation.

Table 48

State of Michigan Public Schools Eighth Grade ELA Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2015	M-STEP	39,884	13,360	34,508	24,111	111,863
2016	M-STEP	36,973	16,266	30,473	25,268	108,980
	Total	76,857	29,626	64,981	49,379	220,843

Note. $\chi^2 = 635.439$; $p = .00$; $df = 3$; critical value = 7.81473.

The state's 8th grade ELA assessment proficiency slightly increased by 1.25% from 47.60% in Fiscal Year 2015 to 48.85% in Fiscal Year 2016. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the slight increase in the ELA assessment proficiency and the LFSCA legislation.

Table 49

Detroit Public Schools Eighth Grade Mathematics Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2015	M-STEP	112	77	482	2,080	2,751
2016	M-STEP	140	48	516	2,052	2,756
	Total	252	125	998	4,132	5,507

Note. $\chi^2 = 11.1826$; $p = .51334$; $df = 3$; critical value = 7.81473.

The district's 8th grade mathematics assessment proficiency slightly decreased by .05% from 6.87% in Fiscal Year 2015 to 6.82% in Fiscal Year 2016. The results of the analysis accepted the null hypothesis and showed that there was not a statistical association between the slight decrease in the mathematics assessment proficiency and the LFSCA legislation.

Table 50

State of Michigan Public Schools Eighth Grade Mathematics Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2015	M-STEP	19,409	16,556	31,438	44,410	111,813
2016	M-STEP	18,121	17,586	29,092	44,276	109,075
	Total	37,530	34,142	60,530	88,686	220,888

Note. $\chi^2 = 132.486$; $p = .00$; $df = 3$; critical value = 7.81473.

The state's 8th grade mathematics assessment proficiency slightly increased by .57% from 32.17% in Fiscal Year 2015 to 32.74% in Fiscal Year 2016. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the slight increase in the mathematics assessment proficiency and the LFSCA legislation.

Table 51

Detroit Public Schools Eighth Grade Social Studies Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2008	MEAP	639	37	2,466	4,483	7,625
2009	MEAP	846	92	2,654	3,795	7,387
2010	MEAP	609	53	1,842	3,692	6,196
2011	MEAP	363	11	1,919	2,530	4,823
2012	MEAP	281	9	2,108	2,336	4,734
2013	MEAP	301	16	1,344	1,654	3,315
2014	MEAP	243	14	1,537	1,996	3,790
2015	M-STEP	182	8	724	1,786	2,700
2016	M-STEP	161	24	898	1,657	2,740
	Total	3,625	264	15,492	23,929	43,310

Note. $\chi^2 = 792.72$; $p = .00$; $df = 24$; critical value = 36.415.

The district's 8th grade social studies assessment proficiency slightly increased by .43% from 32.34% in Fiscal Year 2008 to 32.77% in Fiscal Year 2016. The results of the analysis rejected the null hypothesis and showed that there was a statistical association

between the slight increase in the social studies assessment proficiency and the LFSCA legislation.

Table 52

State of Michigan Public Schools Eighth Grade Social Studies Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2008	MEAP	37,327	7,199	49,836	39,340	133,702
2009	MEAP	37,551	10,530	49,931	32,014	130,026
2010	MEAP	34,770	9,985	45,268	36,593	126,616
2011	MEAP	37,127	3,765	53,376	29,016	123,284
2012	MEAP	31,326	3,869	57,970	29,553	122,718
2013	MEAP	30,745	4,151	51,969	35,127	121,992
2014	MEAP	26,601	4,486	55,686	34,468	121,241
2015	M-STEP	28,243	5,002	44,587	34,010	111,842
2016	M-STEP	25,306	6,691	45,280	31,772	109,049
	Total	288,996	55,678	453,903	301,893	1,100,470

Note. χ^2 = 16,403.5; p = .00; df = 24; critical value = 36.415.

The state's 8th grade social studies assessment proficiency decreased from 33.30% in Fiscal Year 2008 to 29.34% in Fiscal Year 2016. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the decrease in the social studies assessment proficiency and the LFSCA legislation.

Table 53:

Detroit Public Schools Eleventh Grade ELA Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2015	M-STEP	495	137	598	1,203	2,433
2016	SAT	863	-	-	1,657	2,520
	Total	1,358	137	598	2,860	4,953

Note. χ^2 = 905.543; p = .00; df = 3; critical value = 7.81473.

The district's 11th grade ELA assessment proficiency increased from 25.98% in Fiscal Year 2015 to 34.25% in Fiscal Year 2016. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the increase in the ELA assessment proficiency and the LFSCA legislation.

Table 54:

State of Michigan Public Schools Eleventh Grade ELA Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2015	M-STEP	32,402	18,431	27,599	24,719	103,151
2016	SAT	62,720				104,267
	Total	95,122	18,431	27,599	24,719	207,418

Note. χ^2 = 80,854.4; p = .00; df = 3; critical value = 7.81473.

The state's 11th grade ELA assessment proficiency increased from 49.28% in Fiscal Year 2015 to 60.15% in Fiscal Year 2016. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the increase in the ELA assessment proficiency and the LFSCA legislation.

Table 55:

Detroit Public Schools Eleventh Grade Mathematics Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2008	MME	126	7	917	3,674	4,724
2009	MME	208	15	886	3,305	4,414
2010	MME	139	4	773	2,926	3,842
2011	MME	160	6	726	2,701	3,593
2012	MME	182	6	829	2,401	3,418
2013	MME	171	11	706	1,444	2,332
2014	MME	163	10	746	1,587	2,506
2015	M-STEP	218	87	490	1,648	2,443
2016	SAT	369	-	-	2,151	2,520
	Total	1,736	146	6,073	21,837	29,792

Note. χ^2 = 1,968.46; p = .00; df = 24; critical value = 36.415.

The district's 11th grade mathematics assessment proficiency increased from 2.82% in Fiscal Year 2008 to 12.48% in Fiscal Year 2016. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the increase in the mathematics assessment proficiency and the LFSCA legislation.

Table 56:

State of Michigan Public Schools Eleventh Grade Mathematics Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2008	MME	20,222	4,985	38,889	49,155	113,251
2009	MME	22,554	5,973	37,157	45,193	110,877
2010	MME	22,560	5,016	38,954	42,402	108,932
2011	MME	23,105	6,143	37,593	40,452	107,293
2012	MME	24,520	6,148	38,445	36,423	105,536
2013	MME	23,854	6,121	39,970	34,746	104,691
2014	MME	23,119	7,013	37,637	36,866	104,635
2015	M-STEP	18,311	11,043	28,201	45,511	103,066
2016	SAT	38,406				104,267
	Total	216,651	52,442	296,846	330,748	962,548

Note. χ^2 = 106,089; p = .00; df = 24; critical value = 36.415.

The district's 11th grade mathematics assessment proficiency decreased from 34.36% in Fiscal Year 2008 to 28.48% in Fiscal Year 2016. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the decrease in the mathematics assessment proficiency and the LFSCA legislation.

Table 57:

Detroit Public Schools Eleventh Grade Reading Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2008	MME	1,128	80	1,775	1,781	4,764
2009	MME	1,012	108	1,738	1,734	4,592
2010	MME	937	76	1,663	1,334	4,010
2011	MME	799	58	1,473	1,446	3,776
2012	MME	809	79	1,393	1,255	3,536
2013	MME	757	75	882	655	2,369
2014	MME	827	73	941	728	2,569
	Total	6,269	549	9,865	8,933	25,616

Note. χ^2 = 301.062; p = .00; df = 18; critical value = 28.86929943.

The district's 11th grade reading assessment proficiency increased from 25.36% in Fiscal Year 2008 to 35.03% in Fiscal Year 2016. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the increase in the reading assessment proficiency and the LFSCA legislation.

Table 58:

State of Michigan Public Schools Eleventh Grade Reading Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2008	MME	47,389	11,790	32,665	21,815	113,659
2009	MME	41,379	13,497	35,844	21,085	111,805
2010	MME	45,603	13,562	33,457	16,995	109,617
2011	MME	43,862	13,038	33,284	17,811	107,995
2012	MME	44,802	14,616	30,009	16,894	106,321
2013	MME	41,215	15,151	31,352	17,611	105,329
2014	MME	47,143	14,573	27,533	15,890	105,139
	Total	311,393	96,227	224,144	128,101	759,865

Note. χ^2 = 3,802.11; p = .00; df = 18; critical value = 28.86929943.

The state's 11th grade reading assessment proficiency increased from 52.07% in Fiscal Year 2008 to 58.70% in Fiscal Year 2016. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the increase in the reading assessment proficiency and the LFSCA legislation.

Table 59:

Detroit Public Schools Eleventh Grade Science Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2008	MME	107	6	607	3,942	4,662
2009	MME	137	24	553	3,820	4,534
2010	MME	88	14	472	3,344	3,918
2011	MME	74	15	449	3,141	3,679
2012	MME	101	12	450	2,914	3,477
2013	MME	90	7	445	1,827	2,369
2014	MME	119	12	465	1,946	2,542
2015	M-STEP	103	24	372	1,876	2,375
2016	M-STEP	100	27	404	1,893	2,424
	Total	919	141	4,217	24,703	29,980

Note. $\chi^2 = 295.517$; $p = .00$; $df = 24$; critical value = 36.415.

The district's 11th grade science assessment proficiency increased from 2.42% in Fiscal Year 2008 to 5.24% in Fiscal Year 2016. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the increase in the science assessment proficiency and the LFSCA legislation.

Table 60:

State of Michigan Public Schools Eleventh Grade Science Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2008	MME	17,041	6,488	30,827	58,853	113,209
2009	MME	16,443	8,021	28,627	58,260	111,351
2010	MME	17,379	9,022	28,204	54,663	109,268
2011	MME	18,241	9,178	29,232	51,002	107,653
2012	MME	17,665	9,621	29,111	49,504	105,901
2013	MME	17,764	9,187	30,131	47,963	105,045
2014	MME	18,504	11,300	28,598	46,596	104,998
2015	M-STEP	18,504	11,848	28,621	44,250	103,223
2016	M-STEP	21,225	13,127	29,577	40,086	104,015
	Total	162,766	87,792	262,928	451,177	964,663

Note. χ^2 = 9,789.64; p = .00; df = 24; critical value = 36.415.

The state's 11th grade science assessment proficiency increased from 20.78% in Fiscal Year 2008 to 33.03% in Fiscal Year 2016. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the increase in the science assessment proficiency and the LFSCA legislation.

Table 61:

Detroit Public Schools Eleventh Grade Social Studies Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2008	MME	505	30	2,623	1,670	4,828
2009	MME	479	75	2,256	1,739	4,549
2010	MME	279	22	1,883	1,756	3,940
2011	MME	287	14	1,679	1,709	3,689
2012	MME	246	22	1,438	1,772	3,478
2013	MME	254	29	1,435	646	2,364
2014	MME	385	16	1,262	872	2,535
2015	M-STEP	337	39	1,152	887	2,415
2016	M-STEP	275	25	1,368	798	2,466
	Total	3,047	272	15,096	11,849	30,264

Note. χ^2 = 23,754.20; p = .00; df = 24; critical value = 36.415.

The district's 11th grade social studies assessment proficiency increased from 11.08% in Fiscal Year 2008 to 12.17% in Fiscal Year 2016. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the increase in the social studies assessment proficiency and the LFSCA legislation.

Table 62:

State of Michigan Public Schools Eleventh Grade Social Studies Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2008	MME	34,845	11,567	50,476	17,266	114,154
2009	MME	31,948	14,943	47,591	16,973	111,455
2010	MME	31,550	9,469	50,597	17,792	109,408
2011	MME	34,361	10,077	43,467	19,852	107,757
2012	MME	30,881	12,014	41,719	21,285	105,899
2013	MME	29,545	11,004	51,846	12,613	105,008
2014	MME	35,858	10,265	41,619	17,218	104,960
2015	M-STEP	33,997	11,264	42,443	15,490	103,194
2016	M-STEP	33,797	11,002	47,512	11,704	104,015
	Total	296,782	101,605	41,770	150,193	965,850

Note. χ^2 = 9,356.03; p = .00; df = 24; critical value = 36.415.

The state's 11th grade social studies assessment proficiency increased from 40.66% in Fiscal Year 2008 to 43.07% in Fiscal Year 2016. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the increase in the social studies assessment proficiency and the LFSCA legislation.

Table 63:

Detroit Public Schools Eleventh Grade Writing Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2008	MME	804	8	3,029	813	4,654
2009	MME	899	24	2,974	919	4,816
2010	MME	750	23	2,509	891	4,173
2011	MME	661	9	2,307	953	3,930
2012	MME	721	26	2,117	769	3,633
2013	MME	649	33	1,345	377	2,404
2014	MME	724	18	1,435	429	2,606
		5,208	141	15,716	5,151	26,216

Note. χ^2 = 382.099; p = .00; df = 18; critical value = 28.86929943.

The district's 11th grade writing assessment proficiency increased from 17.45% in Fiscal Year 2008 to 28.47% in Fiscal Year 2014. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the increase in the writing assessment proficiency and the LFSCA legislation.

Table 64:

State of Michigan Public Schools 11th Grade Writing Assessment Results

Fiscal year	Assessment type	Proficient	Advanced	Partially proficient	Not proficient	Number assessed
2008	MME	43,570	2,879	54,563	11,971	112,983
2009	MME	44,622	4,241	52,428	11,386	112,677
2010	MME	44,091	4,072	53,129	8,859	110,151
2011	MME	45,522	5,429	49,086	8,553	108,590
2012	MME	47,157	5,608	45,791	8,336	106,892
2013	MME	46,257	5,844	45,796	7,719	105,616
2014	MME	47,413	6,214	43,980	7,989	105,596
	Total	318,632	34,287	344,773	64,813	762,505

Note. χ^2 =5,483.48; p = .00; df = 18; critical value = 28.86929943.

The state's 11th grade writing assessment proficiency increased from 41.11% in Fiscal Year 2008 to 50.79% in Fiscal Year 2014. The results of the analysis rejected the null hypothesis and showed that there was a statistical association between the increase in the writing assessment proficiency and the LFSCA legislation.

Overall, the χ^2 analysis resulted in an acceptance of the null hypothesis four (4) times regarding the LFSCA and the increase or decrease for the various Detroit Public School District's subject assessments proficiency levels. There were no null hypotheses accepted for the State of Michigan. The acceptance of the null hypothesis occurred in situations, in which there were only 2 years being analyzed for a particular assessment

subject. These were 4th grade ELA, 5th grade ELA, 7th grade ELA and 8th grade mathematics. The only one assessment that experienced an increase was that of the ELA proficiency for 5th grade, in the amount of .15%.

Student Retention

Is there a statistical association between student retention (X_3) before and after the enactment of the LFSCA (Y)?

H_3 = Student population is statistically associated with the LFSCA.

H_{03} = Student population is not statistically associated with the LFSCA.

Table 65

State of Michigan Annual Student Count

Fiscal Year	Student Count
2003	1,690,383
2004	1,690,990
2005	1,685,161
2006	1,679,337
2007	1,657,998
2008	1,645,742
2009	1,612,425
2010	1,580,775
2011	1,561,672
2012	1,543,588
2013	1,529,887
2014	1,516,371
2015	1,499,041
2016	1,483,645
2017	1,476,450

As shown in Figure 1 the State of Michigan student count for all public schools, whether in a public school district or a public charter decreased by 213,933 students or by 12.66%.

Figure 1.

Statewide student count

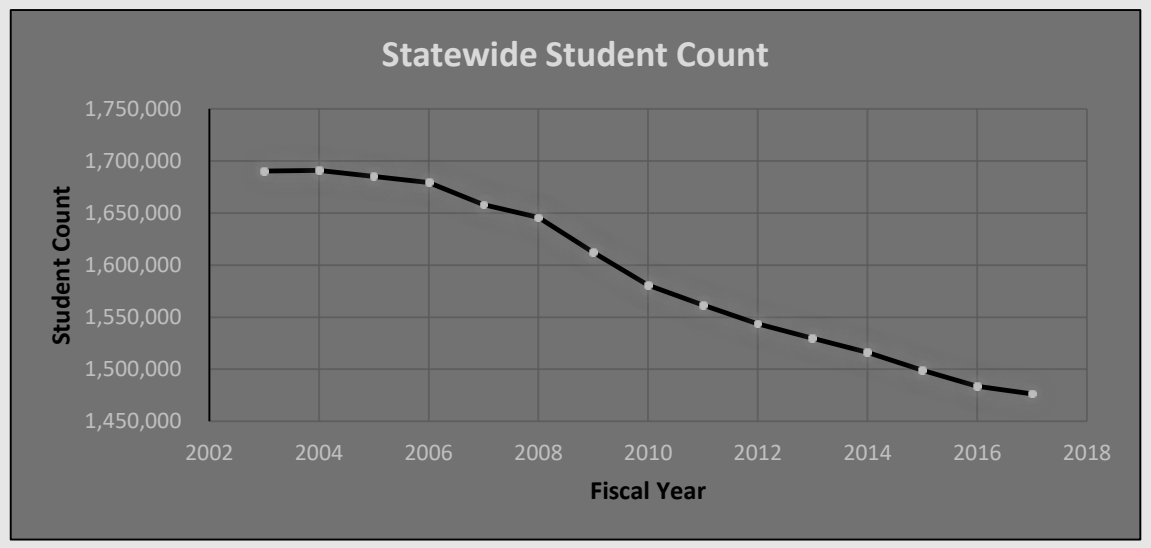


Table 66

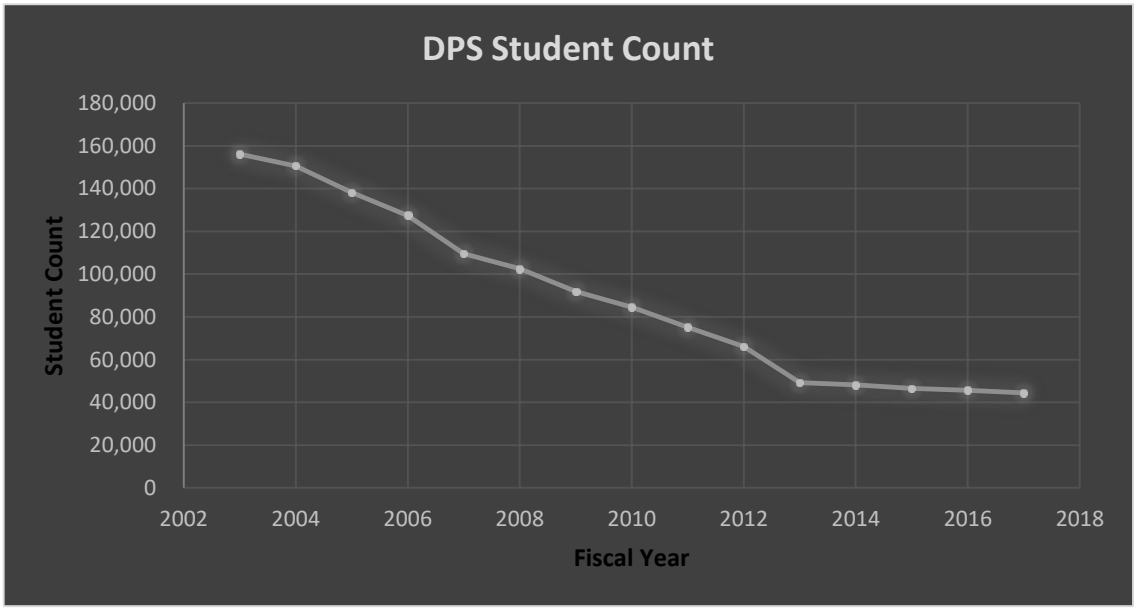
Detroit Public School District Annual Student Count

Fiscal Year	Student Count
2003	156,182
2004	150,604
2005	138,099
2006	127,406
2007	109,547
2008	102,494
2009	91,827
2010	84,501
2011	75,062
2012	66,132
2013	49,168
2014	48,147
2015	46,524
2016	45,557
2017	44,401

As shown in Graph 2 the Detroit Public School District's student count for all public schools, not including public charter schools decreased by 111,781 students or by 71.57%. Unfortunately, the χ^2 analysis could not be used on this data, due to the degrees of freedom totaling zero. There must be a degree of freedom of at least 1 in order to conduct an analysis using χ^2. The research question resulted in an inconclusive response.

Figure 2

Detroit Public School annual student count



Budget Variances

Is there a statistical association between budget variances (X_4) before and after the enactment of the LFSCA (Y)?

H_4 = Budgetary variances are statistically associated with the LFSCA.

H_{04} = Budgetary variances are not statistically associated with the LFSCA.

Table 67

Michigan Statewide Public School Districts' Annual Fund Balance

Fiscal Year	Revenue	Expenses	Balance
2007	$19,741,421,526.36	$(20,233,390,768.00)	$(491,969,241.64)
2008	$19,468,112,744.67	$(19,455,285,193.00)	$12,827,551.67
2009	$18,566,445,296.38	$(19,214,090,023.00)	$(647,644,726.62)
2010	$19,108,408,902.02	$(18,946,042,947.00)	$162,365,955.02
2011	$18,530,144,579.05	$(18,545,827,241.00)	$(15,682,661.95)
2012	$18,919,294,567.72	$(19,553,189,688.00)	$(633,895,120.28)
2013	$18,644,627,622.79	$(18,951,626,619.00)	$(306,998,996.21)
2014	$18,012,910,918.38	$(17,765,941,670.00)	$246,969,248.38
2015	$20,332,895,375.42	$(20,099,189,999.00)	$233,705,376.42
2016	$21,909,862,150.94	$(20,893,911,307.00)	$1,015,950,843.94

The State of Michigan's public school districts' annual fund balance was constantly changing from a deficit to surplus from Fiscal Year 2007 through Fiscal Year 2016. This is shown in Table 67, as well as a visual image in Graph 3.

Figure 3

Michigan Statewide Public School Districts' Annual Fund Balance

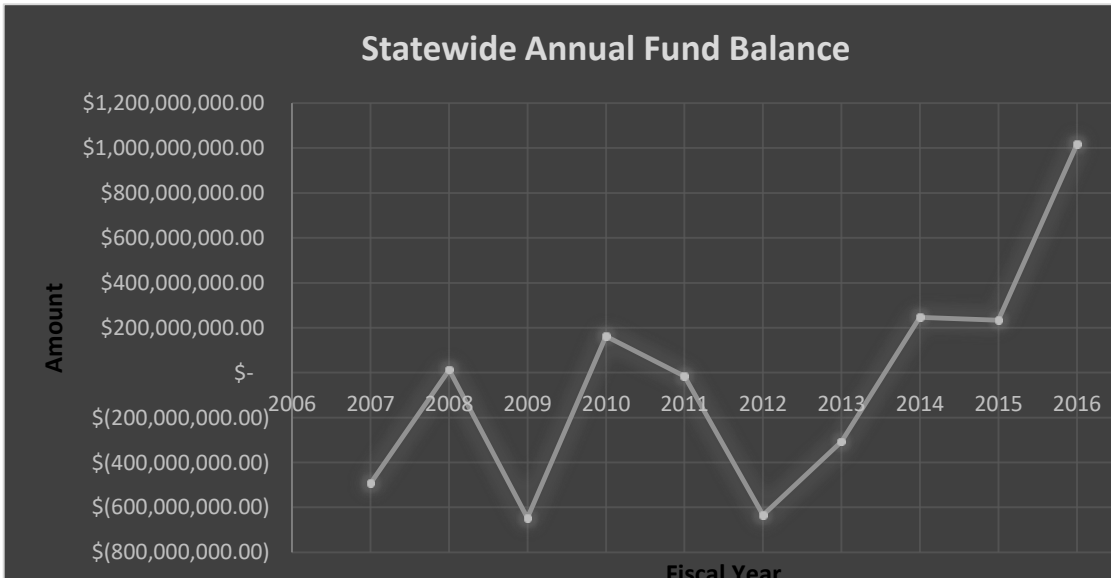


Table 68

Detroit Public School District's Annual Fund Balance

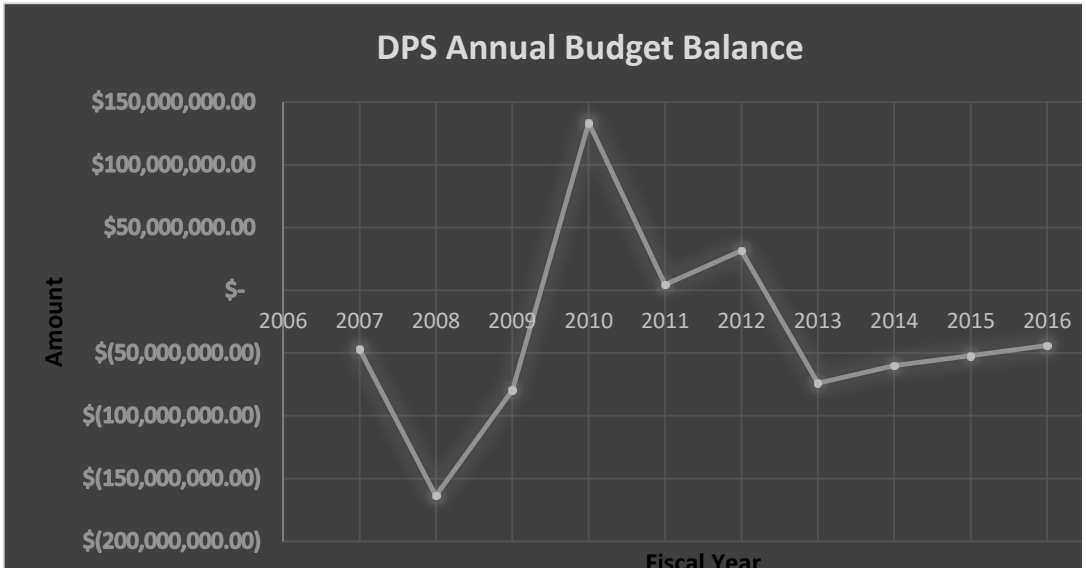
Fiscal year	Revenue	Expenses	Balance
2007	$1,557,836,623.33	$(1,604,797,162.00)	$(46,960,538.67)
2008	$1,350,505,857.77	$(1,514,209,982.00)	$(163,704,124.23)
2009	$1,308,518,625.80	$(1,388,019,355.00)	$(79,500,729.20)
2010	$1,514,257,106.50	$(1,380,803,689.00)	$133,453,417.50
2011	$1,521,275,422.53	$(1,516,607,422.00)	$4,668,000.53
2012	$1,816,228,149.92	$(1,784,574,946.00)	$31,653,203.92
2013	$893,408,881.51	$(967,342,782.00)	$(73,933,900.49)
2014	$887,355,720.71	$(947,389,919.00)	$(60,034,198.29)
2015	$1,071,198,341.16	$(1,123,378,857.00)	$(52,180,515.84)
2016	$892,157,608.00	$(936,141,019.00)	$(43,983,411.00)

Detroit Public School District consisted of several revenue funding sources. The revenue funding sources were federal government, fund modifications, local government, debt

financing, state government and other sources, which were not provided in detail. The expenses included general, debt service, capital projects, school lunch, athletic, special education, community service, trust, cooperative activities, private purpose trust, bookstore and vocational education. The EM was appointed in Fiscal Year 2009. The budget deficit in Fiscal Year was $79,500,729.20. There were three years after the appointment of an EM in which DPS did not experience a deficit, Fiscal Years 2010, 2011 and 2012. During the Fiscal Year 2010, according to the revenue accounts, the district increased its debt financing from $3,075,900.89 to $296,211,988.50. Debt financing during Fiscal Year 2011 was $263,112,688.30 and in Fiscal Year 2012 was $752,169,669.00. Once debt financing was reduced to $35,752,793.94 during Fiscal Year 2013, the budget deficit inflated to $73,933,900.49. The response of the research question was found inconclusive due to the χ^2 analysis that was conducted.

Figure 4

Detroit Public School District's Annual Fund Balance



College Readiness

Is there a statistical association between college readiness (X_5) before and after the enactment of the LFSCA (Y)?

H_5 = College readiness is statistically associated with the LFSCA.

H_{05} = College readiness is not statistically associated with the LFSCA.

College readiness data was filtered based on the type of assessment. The types of assessment were the overall Composite score, English, Mathematics, Reading and Science.

Table 69

Statewide College Readiness Composite Outcomes

Fiscal year	Assessment type	Met or exceeded	Not met	Total assessed
2007	ACT	14,379	101,343	115,722
2008	ACT	16,953	97,822	114,775
2009	ACT	16,767	95,600	112,367
2010	ACT	17,623	92,405	110,028
2011	ACT	18,807	89,717	108,524
2012	ACT	18,903	87,899	106,802
2013	ACT	19,178	86,660	105,838
2014	ACT	21,146	84,631	105,777
2015	ACT	21,254	83,775	105,029
	Total	165,010	819,852	984,862

Note. χ^2 = 4,135.32; p = .00; df = 8; critical value = 15.50731306.

The state's college readiness composite proficiency rate increased from 12.43% in Fiscal Year 2007 to 20.24% in Fiscal Year 2015. Based on the analysis conducted, the null hypothesis was rejected and there was a statistical association between the LFSCA and the increase of the college readiness composite proficiency rate.

Table 70

Detroit Public School District College Readiness Composite Outcomes

Fiscal year	Assessment type	Met or exceeded	Not met	Total
2007	ACT	77	5,534	5,611
2008	ACT	79	4,959	5,038
2009	ACT	99	4,731	4,830
2010	ACT	48	4,145	4,193
2011	ACT	56	3,909	3,965
2012	ACT	66	3,559	3,625
2013	ACT	55	2,367	2,422
2014	ACT	93	2,530	2,623
2015	ACT	78	2,402	2,480
		651	34,136	34,787

Note. $\chi^2 = 91.6775792$; $p = .00$; $df = 8$; critical value = 15.50731306.

The district's college readiness composite proficiency rate increased from 1.37% in Fiscal Year 2007 to 3.15% in Fiscal Year 2015. Based on the analysis conducted, the null hypothesis was rejected and there was a statistical association between the LFSCA and the increase of the college readiness composite proficiency rate.

Table 71

Statewide College Readiness English Outcomes

Fiscal year	Assessment type	Met or exceeded	Not met	Total assessed
2007	ACT	54,873	60,849	115,722
2008	ACT	54,662	60,113	114,775
2009	ACT	56,522	55,845	112,367
2010	ACT	57,542	52,486	110,028
2011	ACT	57,487	51,037	108,524
2012	ACT	57,970	48,832	106,802
2013	ACT	59,619	46,258	105,877
2014	ACT	60,090	45,687	105,777
2015	ACT	61,357	43,672	105,029
	Total	520,122	464,779	984,901

Note. χ^2 = 5,501.75; p = .00; df = 8; critical value = 15.50731306.

The state's college readiness English proficiency rate increased from 47.42% in Fiscal Year 2007 to 58.42% in Fiscal Year 2015. Based on the analysis conducted, the null hypothesis was rejected and there was a statistical association between the LFSCA and the increase of the college readiness English proficiency rate.

Table 72

Detroit Public School District College Readiness English Outcomes

Fiscal year	Assessment type	Met or exceeded	Not met	Total
2007	ACT	1,163	4,448	5,611
2008	ACT	1,061	3,977	5,038
2009	ACT	1,238	3,592	4,830
2010	ACT	1,072	3,121	4,193
2011	ACT	817	3,148	3,965
2012	ACT	938	2,687	3,625
2013	ACT	865	1,559	2,424
2014	ACT	877	1,746	2,623
2015	ACT	850	1,630	2,480
	Total	8,881	25,908	34,789

Note. $\chi^2 = 489.31$; $p = .00$; $df = 8$; critical value = 15.50731306.

The district's college readiness English proficiency rate increased from 20.73% in Fiscal Year 2007 to 34.27% in Fiscal Year 2015. Based on the analysis conducted, the null hypothesis was rejected and there was a statistical association between the LFSCA and the increase of the college readiness English proficiency rate.

Table 73

Statewide College Readiness Mathematics Outcomes

Fiscal year	Assessment Type	Met or exceeded	Not met	Total assessed
2007	ACT	30,534	85,188	115,722
2008	ACT	30,703	84,072	114,775
2009	ACT	32,338	80,029	112,367
2010	ACT	33,144	76,884	110,028
2011	ACT	34,547	73,977	108,524
2012	ACT	35,452	71,350	106,802
2013	ACT	35,199	70,667	105,866
2014	ACT	34002	71,775	105,777
2015	ACT	35200	69,829	105,029
2016	SAT	38406	65,861	104,267
	Total	339525	749,632	1,089,157

Note. χ^2 = 4,949.55; p = .00; df = 9; critical value = 16.9189776.

The state's college readiness mathematics proficiency rate increased from 26.39% in Fiscal Year 2007 to 36.83% in Fiscal Year 2016. Based on the analysis conducted, the null hypothesis was rejected and there was a statistical association between the LFSCA and the increase of the college readiness mathematics proficiency rate.

Table 74

Detroit Public School District College Readiness Mathematics Outcomes

Fiscal year	Assessment type	Met or exceeded	Not met	Total
2007	ACT	247	5,364	5,611
2008	ACT	228	4,810	5,038
2009	ACT	268	4,562	4,830
2010	ACT	244	3,949	4,193
2011	ACT	229	3,736	3,965
2012	ACT	262	3,363	3,625
2013	ACT	260	2,164	2,424
2014	ACT	234	2,389	2,623
2015	ACT	248	2,232	2,480
2016	SAT	369	2,151	2,520
	Total	2,589	34,720	37,309

Note. $\chi^2 = 0$; $p = .00$; $df = 8$; critical value = 15.50731306.

The district's college readiness mathematics proficiency rate increased from 4.40% in Fiscal Year 2007 to 14.64% in Fiscal Year 2016. Based on the analysis conducted, the null hypothesis was accepted and there was not a statistical association between the LFSCA and the increase of the college readiness mathematics proficiency rate.

Table 75

Statewide College Readiness Reading Outcomes

Fiscal year	Assessment type	Met or exceeded	Not met	Total assessed
2007	ACT	39,792	75,930	115,722
2008	ACT	40,196	74,579	114,775
2009	ACT	38,698	73,669	112,367
2010	ACT	42,233	67,795	110,028
2011	ACT	42,994	65,530	108,524
2012	ACT	43,394	63,408	106,802
2013	ACT	43,621	62,234	105,855
2014	ACT	40,007	65,770	105,777
2015	ACT	37,878	67,151	105,029
	Total	368,813	616,066	984,879

Note. χ^2 = 2,638.04; p = .00; df = 8; critical value = 15.5731306.

The state's college readiness reading proficiency rate increased from 34.39% in Fiscal Year 2007 to 36.06% in Fiscal Year 2015. Based on the analysis conducted, the null hypothesis was rejected and there was a statistical association between the LFSCA and the increase of the college readiness reading proficiency rate.

Table 76

Detroit Public School District College Readiness Reading Outcomes

Fiscal year	Assessment type	Met or exceeded	Not met	Total
2007	ACT	587	5,024	5,611
2008	ACT	585	4,453	5,038
2009	ACT	561	4,269	4,830
2010	ACT	525	3,668	4,193
2011	ACT	461	3,504	3,965
2012	ACT	488	3,137	3,625
2013	ACT	465	1,958	2,423
2014	ACT	386	2,237	2,623
2015	ACT	303	2,177	2,480
	Total	4,361	30,427	34,788

Note. $\chi^2 = 144.98$; $p = .00$; $df = 8$; critical value = 15.50731306.

The district's college readiness reading proficiency rate increased from 10.46% in Fiscal Year 2007 to 12.22% in Fiscal Year 2015. Based on the analysis conducted, the null hypothesis was rejected and there was a statistical association between the LFSCA and the increase of the college readiness reading proficiency rate.

Table 77

Statewide College Readiness Reading and Writing Outcomes

Fiscal year	Assessment type	Met or exceeded	Not met	Total assessed
2016	SAT	62,720	41,547	104,267
	Total	62,720	41,547	104,267

Table 78

Detroit Public School District College Readiness Reading and Writing Outcomes

Fiscal Year	Assessment Type	Met or exceeded	Not met	Total
2016	SAT	863	1,657	2,520
	Total	863	1,657	2,520

The college readiness reading and writing proficiency rate for the state during Fiscal Year 2016 was 60.15% and the school district's was 34.25%. An analysis was found inconclusive due to the degrees of freedom consisting of zero.

Table 79

Statewide College Readiness Science Outcomes

Fiscal year	Assessment type	Met or exceeded	Not met	Total assessed
2007	ACT	20,635	95,087	115,722
2008	ACT	23,159	91,616	114,775
2009	ACT	24,316	88,051	112,367
2010	ACT	23,618	86,410	110,028
2011	ACT	24,678	83,846	108,524
2012	ACT	25,123	81,679	106,802
2013	ACT	24,428	81,416	105,844
2014	ACT	33,448	72,329	105,777
2015	ACT	34,016	71,013	105,029
	Total	233,421	751,447	984,868

Note. χ^2 = 11,692.03; p = .00; df = 8; critical value = 15.50731306.

The state's college readiness science proficiency rate increased from 17.83% in Fiscal Year 2007 to 32.39% in Fiscal Year 2015. Based on the analysis conducted, the null hypothesis was rejected and there was a statistical association between the LFSCA and the increase of the college readiness science proficiency rate.

Table 80

Detroit Public School District College Readiness Science Outcomes

Fiscal year	Assessment type	Met or exceeded	Not met	Total
2007	ACT	129	5,482	5,611
2008	ACT	129	4,909	5,038
2009	ACT	192	4,638	4,830
2010	ACT	87	4,106	4,193
2011	ACT	118	3,847	3,965
2012	ACT	112	3,513	3,625
2013	ACT	95	2,327	2,422
2014	ACT	241	2,382	2,623
2015	ACT	202	2,278	2,480
	Total	1,305	33,482	34,787

Note. $\chi^2 = 444.38$; $p = .00$; $df = 8$; critical value = 15.50731306.

The district's college readiness science proficiency rate increased from 2.30% in Fiscal Year 2007 to 8.15% in Fiscal Year 2015. Based on the analysis conducted, the null hypothesis was rejected and there was a statistical association between the LFSCA and the increase of the college readiness science proficiency rate.

As a result of the χ^2 analysis that was conducted on college readiness DPS mathematics proficiency rate was the only variable that accepted the null hypothesis and was not found statistically associated with the increase in the proficiency rate. The reading and writing proficiency rate outcomes were found inconclusive due to the number of years available to conduct an analysis and the degree of freedom equating to zero.

Summary

The results to the research questions were somewhat as expected. There were some results that were found inconclusive based on the type of analysis that was

conducted but the amount of increases that were found in the analysis was astounding as the researcher originally believed that there would be decreases in the proficiency rates.

R_1: Graduation rates for DPS during Fiscal Years 2007 through 2016 increased almost 20% from 58.42% to 78.30%. The null hypothesis was rejected and there was a statistical association between the LFSCA legislation and the graduation rate. DPS's graduation rate increased significantly more than the State of Michigan's, which increased at only a rate of 4.20% statewide.

R_2: The standardized test proficiency rates varied in increases and decreases for both DPS and statewide. There were only four (4) cases in which the acceptances of the null hypothesis was made. The acceptances were for 4^{th}, 5^{th} and 7^{th} grades ELA proficiency rates and 8^{th} grade mathematics proficiency rates. All other grades and subjects were found to reject the null hypothesis and all increases or decreases were statistically associated with the LFSCA legislation. The proficiency rates were also extremely low for the school district and throughout the State of Michigan.

R_3: Student retention was found inconclusive based on the type of analysis selected for this study. However, the student attendance rate for public school districts and public charter schools throughout the State of Michigan decreased by 12.66% from Fiscal Year 2003 through 2016. The student attendance rate for DPS decreased by 71.57%.

R_4: Budget variances were also found inconclusive. DPS experienced a budget deficit from Fiscal Years 2007 through 2016, with the exception of Fiscal Year 2010, 2011 and 2012. Increased debt financing during the years of 2010, 2011 and 2012 assisted in the result of the budget surplus that was experienced. The budget deficit resumed once debt financing decreased.

R_5: College readiness proficiency rates increased from Fiscal Year 2007 through 2015. The null hypothesis was rejected and the increased college readiness proficiency rates that were experienced throughout all of the subjects analyzed were found to be statistically associated with the LFSCA legislation.

Overall, the χ^2 analysis determined that there was a statistical association with the increases or decreases that were experienced as a result of the LFSCA legislation, which allowed an EM to be appointed to the public school district. The result of the analysis and the determined association still needs thorough analysis and conclusions of the information that was used to provide the results. The information is readily accessible.

Chapter 5: Conclusion

Introduction

The purpose of this study was to determine whether Michigan's LFSCA affected the DPS District's education policy outcomes. I conducted the study to determine whether a relationship existed between the LFSCA and the district's graduation rate, college readiness, student attendance, assessments, and the annual budget balance. I found a statistical association in the LFSCA and the increase in the graduation rate, a decrease in students being proficient according to their assessment, and a decrease in students who were considered college ready. The type of statistics that were used to measure whether there was a statistical association was between the independent variable (LFSCA) and the dependent variables (education outcomes) was found inconclusive for the decrease in student attendance and the volatile annual budget balance.

Interpretation of the Findings

The data that I interpreted showed an increase in graduation rates, college readiness rates, budget deficit; a decrease in the student population; and increases/decreases in assessment proficiency rates. The data also showed low college readiness proficiency rates, low assessment proficiency rates, low student population, and high budget deficits with excessive debt financing. The data also showed that these results were statistically associated with the LFSCA legislation. When all of the outcomes are put together and interpreted, I conclude that though the graduation rates were increased, those students who are graduating are not ready to succeed in college if they are enrolled in college-level classes. The data also showed that it was not only

within DPS, but throughout the State of Michigan and significantly lower in Detroit. The EM was appointed to assist in lowering the budget deficit; after the first year of appointment, the deficit was reduced, but the reduction was due to the excessive debt financing. With 3 years of excessive debt financing, the budget deficit resumed as soon as the debt financing was reducing. The school district as of Fiscal Year 2016 was still experiencing an enormous budget deficit. However, the lower the number of students who are enrolled in the school district, the less amount of funding is available for the district. The student population has decreased by 71.57% in in 10 years. This decrease alone has caused a negative effect on the school district's budget. The students are not performing at a successful rate and the funding available to assist the students is limited. Every year, the school district is experiencing a budget deficit with no hope of recovering any funding to assist with the elimination of the deficit.

As a result of the longitudinal study, the data were available for 8 to 11 years. The amount of data available provided enough information to determine whether a statistical association existed, and the data allowed me to determine whether there was a trend. The abundance of data also allowed for a study of the increases of the proficiency rates, budgets, and student population. The student population was inconclusive, but the ability to see the harsh decrease in the population provided additional information regarding the budget balance, along with having the ability to provide a comparison with the state of Michigan.

Limitations of the Study

The limitation to this study was that all of the research questions could not answered based on the type of analysis that was selected to conduct the study. Other limitations included full access to raw data that was not provided directly by the school district. The data used was aggregate data, which was publicly available online. The type of statistical analysis that could be conducted for aggregate data was limited. The data was useful and provided detailed information but without the raw data, there was a challenge to potentially provide full results to all of the research questions that were developed for this study. There were several attempts to access the raw data but the staff within the school district was non-responsive.

Recommendations

Future research could be used to determine which schools have the highest proficiency rates. The data is available publicly for the entire school district. It would also be interesting to research how many students have been accepted to college or a four year university, along with their individual grade point average. It would be interesting to see how many students are deemed successful with the grades that they receive or earn versus those who are or are not proficient according to the national or state standards. It would also be interesting to review the policies regarding grading, whether students are allowed to test more than once for standard classroom exam due to a failing grade that may have been received previously. Additional research should also be considered for other school districts throughout the State of Michigan that have been affected by the LFSCA legislation to determine whether changes have been experienced.

Implications

The potential effect for positive social change for individuals that are directly affected in the City of Detroit is beyond inspiring for those that have known that the LFSCA legislation has had a negative effect on the community as a whole. The legislation violates the laws of full democracy for the residents and voters to have the opportunity to select those members of the board for the school that are supposed to make major decisions about not only the budget for the school district but for the district's educational plan.

Families have been forced to remain in the school district if their economies of scale did not allow them to either select a private school of their choice or if they could not afford to relocate into a better or more profitable school district. There are very few options that most families have available to them. However, even though the information had been made available to the public, the information had not been thoroughly analyzed to determine if a relationship existed. Families will now possess verified proof that the legislation has not been a benefit for the budget nor for their children.

Detroit Public Schools District had no choice but to accept the EM that was appointed. Under the legislation, families could not select a superintendent through the school board in order to manage the educational outcomes of the district. The complete monopolistic oversight was through one person, which was not how any organization should be operated. There should be a check and balance system with any organization especially one that is utilizing public funds to operate. The EM did not have the educational background to oversee an educational institution that was not a requirement.

The EM had a background in accounting and finance because there was an overall concern with the annual budget balance having a deficit.

Society will now have an opportunity to use this documented study in order to assist in removing the LFSCA legislation from the records in not only the Detroit Public School District but other districts and localities throughout the State of Michigan. One study used as an example could be used as the foundation for other studies in order to determine if there is an association with the legislation and the outcomes that are being experienced. In the past, there were no studies on the actual effect (positive or negative) or any verification of a relationship between the legislation and any outcomes.

The quantitative methodology that was used to analyze the effect of the LFSCA legislation via χ^2 showed that there was a statistical association between the legislation and the education outcomes. The longitudinal theoretical foundation provided an opportunity for the study to compare a long series of data from Fiscal Year 2003 through 2017. The theoretical foundation allowed the study to utilize more information than normal, in order to determine if there was an association. The additional information was valuable in order to witness the pattern of information regarding an increase or decrease in the numbers as it pertained to the education outcomes. The quantitative approach was the best methodology in order to determine the statistical association or if there was the possibility of a relationship due to legislation. The data measured the number of students that either passed or failed assessments, were college ready or graduated from high school.

The recommendations for future practice is to ensure that you have previous years documentation of the educational outcomes

Conclusion

The findings of this study determined that the LFSCA legislation has had an effect on the education outcomes for the Detroit Public School District. In conclusion, the graduation, college readiness and some subject assessment rates have increased. It doesn't necessarily benefit the school district because the budget deficit is still existing and even though student proficiency rates have increased, more than 70 or 80 percent of the graduating class is still not college ready upon graduation from high school. The EM was appointed to this school district to assist in eliminating the budget deficit. The deficit has not been eliminated but has increased and more debt financing has been made. The student population has drastically decreased by 71.57%, which is almost more than what the entire State of Michigan has experienced during the same period. The legislation has been statistically associated with making minor improvements but nothing worth the education of the students or the population of the City of Detroit. Detroit has recently been making tides of building up and coming back as a competitive millennial type of city. Without decent schools, it will be difficult for the city to continue to survive at its present rate. The legislation has not only stripped localities and school districts of its democracy but for DPS, it did not provide the solution that it was supposed to but made things worse financially.

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