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THE RELATIONSHIP OF SELECTED VARIABLES TO THE STABILITY OF
BOARDS OF EDUCATION AMONG SELECTED MICHIGAN K-12 PUBLIC
SCHOOL SYSTEMS

Michigan State University

PH.D.

1980

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OF BOARDS OF EDUCATION AMONG SELECTED
MICHIGAN K-12 PUBLIC SCHOOL SYSTEMS

By

Paul Robert Williams

A DISSERTATION

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1980

ABSTRACT

THE RELATIONSHIP OF SELECTED VARIABLES TO THE STABILITY OF BOARDS OF EDUCATION AMONG SELECTED MICHIGAN K-12 PUBLIC SCHOOL SYSTEMS

By

Paul Robert Williams

The purpose of this study was to determine the inter-relationship among the following nine variables and board of education membership stability, (1) declining pupil enrollment, (2) changes in the number of courses of study, (3) changes in seventh grade Michigan Assessment test scores, (4) changes in operational millage rates, (5) changes in percentage of minority students, (6) changes in school mission, (7) changes in teacher volunteering, (8) rate of staff conflict and anxiety and (9) variance among school boards in the practice of political openness.

A board of education, whose membership is constantly changing, is continually learning boardmanship. It is regularly running for re-election without being re-elected. It does not have the power a re-election yields. The board becomes the victim and advocate of single issues that appeal to, and benefit but a few of the district's patrons. Even though the problem of board of education membership instability is recognized, there remains a need to test issues which may be related to this lack of stability.

Three hundred and seventy-eight (378) K-12 Michigan public schools which, (1) had not consolidated or

deconsolidated (1972-73 to 1978-79) and (2) had experienced stable or declining enrollment in the same time period, were the population of interest. All superintendents of these districts were mailed surveys; two hundred and twelve (212) returned useable surveys.

Additional data were taken directly from Michigan Department of Education computer tapes and merged with data from the survey forms for each sampled district on separate computer tapes.

A one-way analysis of variance with fixed effects was used to test for significant board-member change differences among districts grouped into discrete change or rate blocks. A stepwise-multiple regression was used to test for relationships among the studied variables and board of education membership stability.

The analysis of variance F tests found no significant ($\alpha = .05$) effects among the variables tested and board of education membership stability. However, the multiple-regression analyses yielded some statistically significant relationships. Statistically significant ($\alpha = .05$) bivariate relationships were found between (1) board membership stability and lowered operational millage rates and (2) board membership stability and staff conflict and anxiety. Statistically significant multiple regressions were found among most, but not all, variables studied and board

membership stability. Changes in the number of high school courses of study were not, by themselves, or in combination with other variables, related to board membership stability.

It was thought that the results of the study would provide a model for planning. However, the bivariate and multiple regressions were small (less than .32). These small regressions failed to produce discrete confidence intervals of board membership stability between two school districts experiencing widely varying degrees of societal change. Data studied in this dissertation indicated some statistical significance among the variables studied and board of education membership stability; however, the data also denoted a lack of meaningful significance because, (1) the regression coefficients were small, (2) the predicted ranges of board membership stability were large and (3) the prediction equation failed to produce discrete 95% confidence intervals of board membership stability between districts. This finding indicated the the computed regressions were too small to be useful and/or meaningful.

Since half of the studied Michigan K-12 public school districts encountered from five (5) to twenty (20) board member changes (1972-73 to 1978-79), there remains a need for testing the relationship of additional variables to board of education membership stability. Other variables may have larger regressions, meaningful significance and greater predictability of board membership stability.

DEDICATION

This study is dedicated to, (1) my mother, Lola Williams, who stated, "You shall," (2) to my wife Catherine Williams, who indicated, "You will," (3) to the Caledonia Community Schools' board of education, who wrote, "You may and (4) to Dr. Herbert C. Rudman, who said, "You can."

ACKNOWLEDGEMENTS

A study of this nature is an accumulation of experiences, instructions, sharings, advise, interviews, readings, and research. Numerous persons, who were knowledgeable, deserve specific accolades. The faculty of the Department of Higher Education and Administration gave unselfishly of their knowledge, writings, research, travel and experience. The doctoral committee--Dr. Stanley Hecker, Dr. Daniel H. Kruger, Dr. Charles V. Mange and Dr. Herbert C. Rudman--provided specific advise and direction. Dr. Herbert C. Rudman shared substantial knowledge that he had accumulated through extensive reading, travel, consulting, writing, teaching and research. A large debt is owed him for his patience, time, understanding and counsel.

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CHAPTER I

THE PROBLEM

Statement of the Problem

Board of education membership changes that are numerous and/or frequent, seemingly, cause a disruption of education. A board of education that is changing, relatively new, or unsure of its membership can be vulnerable to special interest groups. It may not be able to provide leadership, direction or goals for the school district. It may pursue values and aspirations of a small vocal minority. It may become so concerned with its own problems that it forgets the educational problems of the district. It may become the home of "single issue" members who have difficulty solving other problems. Even though the problem of board of education membership instability is recognized, there remains a need to test issues which may be related to it.

Purpose of the Study

The purpose of the study is to determine the inter-relationships among the following nine variables and board of education membership stability, (1) declining pupil

enrollment, (2) changes in the number of courses of study, (3) changes in seventh grade Michigan Assessment test scores, (4) changes in operational millage rates, (5) changes in percentage of minority students, (6) changes in school mission, (7) changes in teacher volunteering, (8) rate of staff conflict and anxiety, and (9) variance among school boards in the practice of political openness.

Importance of the Study

Several studies have examined the effect of specific school issues on the stability of board of education membership; i.e. enrollment growth or decline. It would appear that societal and school issues affect the stability of board of education membership and performance.¹ However, since these inquiries limited the number of change indicators examined, reservations have been raised regarding their scope.²

¹Laurence Iannaccone and Frank W. Lutz, Politics, Power and Policy, (Columbus: E. E. Merrill, 1970), pp. 1-233.

²David R. Eblen, "Local School District Politics: A Reassessment of the Iannaccone and Lutz Model," Administrators Notebook, 24 (Fall, 1975-76): 2.

The Nine Variables

Declining Pupil Enrollment

The nine issues discussed have been divided into separate variables to improve the precision of the study. One such variable is declining pupil enrollment. The relationships of pupil enrollment decline to school building closing, school finances, and reductions in force have been explored elsewhere. However, the relationship of pupil enrollment decline to board of education membership stability and other issues has not been studied to any great extent.

Declining full-time equivalent pupil enrollment is a result of a dramatic drop in the number of births:

The largest number of births in Michigan occurred in 1957 with 208,488. Since then the number of births has dropped steadily each year except for 1969 and 1970. By 1974, the number of births had fallen to a new low of 137,285, 34 percent below the 1957 level.³

Declining school enrollment in Michigan will ". . . continue for at least 10 more years."⁴ While birthrates are stabilizing, the echo effect of the pre-1957 birth boom may not occur in that:

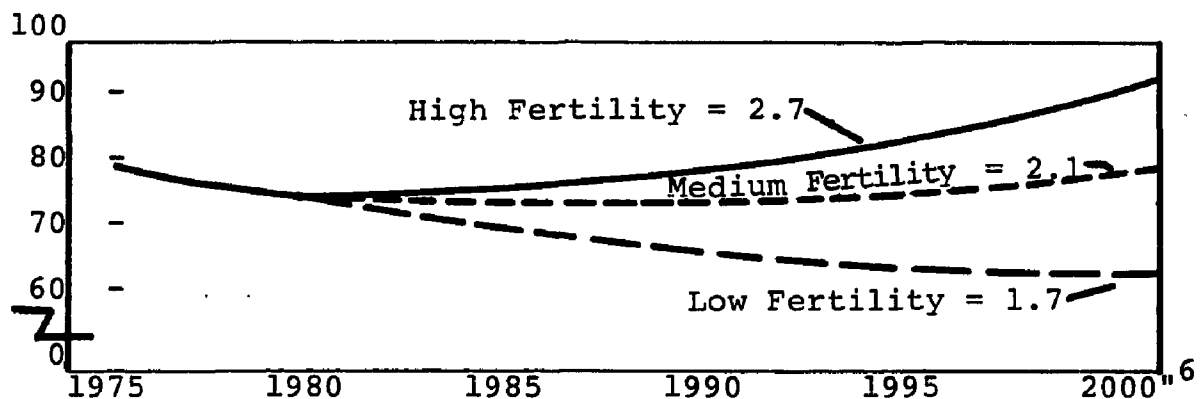
³Robert E. Pickup, Management of Declining Public School Enrollment, (Detroit: Citizens Research Council of Michigan, 1976), p. 1.

⁴Ibid., p. 1.

. . .it appears that for young women now, we are talking about a lifetime fertility of just about 2.0 births per woman - which would be the lowest in American history. . .⁵

Therefore, the problems associated with declining enrollment may continue to and beyond the year 2,000 as outlined by the following:

"PROJECTIONS OF THE U.S. SCHOOL AGE POPULATION, 1975-2000
(Aged 5-24)



Enrollment decline is beginning in the high school and will affect grades 9 - 12 ". . .until at least 1986."⁷ Therefore, the impact of declining enrollment will increase. Past studies have not examined the scope of this impact.

⁵ Martin Mayer et. al., Shrinking Schools, The Report of a National Seminar Sponsored by the Institute for Development of Educational Activities, Inc., (Dayton: IDEA, 1975), p. 10.

⁶ "U.S. School Enrollment, 1950-2000," Social Education 41 (April 1977), p. 322.

⁷ George Neill, "High Schools Enter New Era of Declining Enrollments," Phi Delta Kappan 59 (October, 1977): 138.

Changes in the Number of Courses of Study

The second variable deals with changes in the number of courses of study. These changes may cause value and aspiration differences between board of education members and school patrons. This, in turn, may affect board of education membership stability.

In the "Tenth Annual Gallup Poll of Attitudes Toward Education,"⁸ ". . .poor curriculum/poor standards. . ." ⁹ were listed as the fifth top problem of the nation's schools by ". . .all adults of the nation."¹⁰ A review of the literature failed to find research regarding the effect of declining enrollment on the number of courses of study. However, the Citizens Research Council of Michigan stated:

In some instances where problems of balancing budgeted expenditures and revenues have arisen, districts have cut back in such areas as music, physical education, auxiliary services, and have reduced the number of course offerings in a given subject area. There are ways in which the curriculum can be redesigned to minimize reductions in the range of educational offerings. One example is to stagger

⁸Interview with Herbert C. Rudman, Michigan State University, East Lansing, Michigan, January 1979.

⁹Stanley M. Elam, A Decade of Gallup Polls of Attitudes Toward Education 1969-1978, (Bloomington: Phi Delta Kappan, 1979), p. 336.

¹⁰Ibid., p. 368.

courses--offering one course in one year but not the next. One school district has about 40 courses that are managed on a staggered schedule.¹¹

When the New Trier High School reduced the number of courses of study because of state finance power equalizing, the American School Board Journal reported that the school board president found that:

Things haven't been terrific at the office, either. Bickert (the board president) had to direct his secretary to set up a special file for letters about the cutbacks. He's been working extra hours to personalize responses to this mail, most of which contains criticism. He says he recently dictated a two-page reply, originally intended as just a note of thanks, to the single supportive letter he'd received that week. 'I got carried away because I could finally say something positive. It was just marvelous.'

Predictably, the most prevalent piece of advice about retrenchment has been: 'Don't do it.'¹²

Changes in Seventh Grade Michigan Assessment Test Scores

The third variable is the relationship of student achievement to the stability of board of education membership. Articles and books such as Paul Cooperman's, The Literacy Hoax,¹³ have pinpointed the patron's concerns

¹¹Pickup, Management of Declining Enrollment, p. 23.

¹²"How One of North America's Greatest Public High Schools is Being 'Equalized' to Death," American School Board Journal, 163, (August 1976): 37.

¹³Paul Cooperman, The Literacy Hoax, (New York: William Morrow Co., 1978), p. 197.

regarding student achievement. This concern is reflected in strong support for "back to the basics" and "accountability." The potential for conflict regarding this concern is present. The patron's dissatisfaction may be related to board of education membership stability.

However, patron dissatisfaction regarding student achievement decline¹⁴ may be resolved if the Rodekohrs' findings in Colorado are correct. They noted that,

. . . enrollment decline had unexpected effects. Dropout rates were significantly lower and achievement scores were substantially higher when compared to districts experiencing growth.¹⁵

Changes in Operational Millage Rates

The fourth variable, the relationship of school operational millage rate increases to board of education membership stability contains important elements that are assumed but not proved. The public, who sees declining enrollment in schools and increased costs, is becoming dissatisfied with its management.¹⁶ George Neil, using

¹⁴Elam, A Decade of Gallup Polls, p. 336.

¹⁵Mark Rodekohr and Carol Rodekohr, "A Study of the Effects of Enrollment Decline," Phi Delta Kappan 57 (May, 1976): 623.

¹⁶Sherwood Davidson Kohn, "Waiting for Jimmy: Education's Great Issue Gap," National Elementary Principal 56, (May/June 1977): 31-42.

National Center for Education Statistics projections, pinpoints a critical ". . .problem for public education in the years ahead, for the simple reason that the public has difficulty understanding why costs go up while enrollment goes down."¹⁷ In addition, Gallup in 1978, found that 52 percent of the sampled adult population 18 years or older were dissatisfied with property taxes as a way of financing schools.¹⁸ Goettel and Firestine point out that enrollment declines do not lead to a proportionate decline in expenditures.¹⁹ The difference between expectation and performance could effect board of education membership stability.

Changes in Percentage of Minority Students

A fifth variable, the relationship of minority population change to board of education membership stability

¹⁷George Neil, "High Schools Enter New Era of Declining Enrollments," Phi Delta Kappan, 58, (October 1977) 138.

¹⁸Elam, A Decade of Gallup Polls, pp. 360-1.

¹⁹Robert J. Goettel and Robert E. Firestine, "Declining Enrollment and State Aid: Another Equity and Efficiency Problem," Journal of Education Finance, 1, (Fall 1975): 205-215.

has received considerable attention in the media. Varl Wilkinson, Deputy Executive Director, Michigan Association of School Boards, recently stated that board of education stability is related to a change in the percentage of minorities residing within a district. He based his assumptions on several years of observing and advising boards of education during periods of conflict and anxiety.²⁰

The relationship of desegregation and white flight to enrollment decline is debated in the literature.²¹ Its relationship to board of education membership stability is similarly unclear.

Changes in School Mission

The sixth variable examined is the relationship among changes in school mission and board of education membership stability. Changes in school mission may or may not stabilize a board of education in a school system, where some of the patrons (parents) are shrinking in numbers and some (non-parents) are growing in numbers. Those who have contributed to the literature recommend that the public school broaden its mission. This broadening may increase

²⁰ Interview with Varl Wilkinson, Michigan Association of School Boards, Lansing, Michigan May 10, 1979.

²¹ Christine H. Rossell, "Boston's Desegregation and White Flight," Integrative Education 15, (January 1977): 36-9.

the public's acceptance such that dissatisfaction in periods of enrollment decline would be lessened.

The public school's mission has been historically and statutorily limited by definition. Two such definitional limits are:

1. Its purpose - the transfer of knowledge, skills and values.
2. Its clientele - youth ages 5 - 18 years of age.

Some ". . . advocate the expansion of the functions or scope of responsibilities of the schools. Pre-school and post-high educational opportunities have received considerable attention as possibilities.²²

It seems reasonable to test whether expansion to serve a population growing older and a population previously unserved affect a board of education's membership stability.

Rate of Staff Conflict and Anxiety

A seventh variable is the relationship of employee conflict and anxiety to board of education membership stability. Chester Nolte mentioned that

. . . the bust of our 20-year boom. . . leads to a list of things schools must give up, including teachers. . . who have powerful unions that are going to do their best to make sure that (a)

²²Pickup, Management of Declining Enrollment, p. 23.

teachers aren't riffed off, and (b), if they are, the process is as fair and even-minded as possible.²³

A loss of joy, an over-supply of professionals, less chance for advancement ". . . fewer occasions of success, and a reduction of enthusiasm"²⁴ are products of decline according to Mayhew.

Mattheis clearly outlined the potential for conflict when he contended that:

An oversupply of teachers, pressure for reduced budgets, and reduced opportunities for advancement face, or soon will face, most school districts and anxiety over these prospects seems to be the prevalent reaction among educators entering this new, strange, shrinking, school universe. Growth has for so long been equated with progress in American schools that to plan for a decline in anything is a taste of future shock.²⁵

Seemingly, the patrons are more interested in equitable resolutions to employee conflicts than in which side is right or wrong. Therefore, a visible demonstration of

²³Chester Nolte, "How to Tell Which Teachers to Keep and Which to Lay Off," American School Board Journal 163 (June, 1976): 28.

²⁴Lewis B. Mayhew, Educational Leadership and Declining Enrollment, (Berkley: McCutchen Publishing Corp., 1974), p. 95.

²⁵Duane J. Mattheis, "What Shrinking Enrollment May Mean to America's Schools and Students," School Management, 18 (June 1974): 8.

conflict could cause instability of board of education membership. The relationship is assumed but unproved.

Changes in Teacher Volunteering

The eighth variable is the relationship of changes in teacher volunteering to board of education membership stability. Daniel Kruger, in an interview with this author, stated that people in organizations behave differently in periods of growth and decline. The "extent of volunteering"²⁶ for after-work activities diminishes because employees try to limit their exposure to the employer's range of items of dissatisfaction. This protection could lead to conflict that will result in stability differences among boards of education. Similarly the relationship between declining pupil enrollment and change in teacher volunteering is unclear.

Practice of Political Openness

A ninth variable deals with differences among school boards in the practice of political openness. These differences were characterized by Iannaccone and Lutz as

²⁶Interview with Daniel Kruger, Michigan State University, East Lansing, Michigan May 7, 1979.

either politically open or closed.²⁷ The use of koffee klatches, opinion surveys, public hearings, and citizen advisory committees are recommended as methods of exercising political openness. In fact political openness may be dependent upon the practice of these four techniques.²⁸ Such political operations in a single party system (American board of education operation) generates its own 'loyal opposition'²⁹ in that it creates ". . . independent critics friendly to the schools but not controlled by them." Such political exercises may open the system to the community.³⁰ It may be used to listen or close the board of education's ear to the community.³¹

²⁷Iannaccone and Lutz, Politics, Power and Policy, pp. 85-8.

²⁸Mayer et, al., Shrinking Schools, p. 30.

²⁹Iannaccone and Lutz, Politics, Power and Policy, p. 26.

³⁰U.S. Department of Health, Education and Welfare, National Institute of Education, The Rand Paper Series, The Management of Decline: Problems, Opportunities, and Research Questions, August 1977, p. 318.

³¹Elliot Harvey Burns, "Actions Public School Boards May Take to Reduce Resistance to Change During Times of Declining Enrollment," (Ph.D. dissertation, Wayne State University, 1978), abstract.

General Hypothesis I

Significant differences ($\alpha = .05$) will be found among the least (1) to greatest (4) change or rate blocks of districts grouped according to each of the variables studied and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts using a one-way analysis of variance with fixed effects.

Operational H1a

H1a: Significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) enrollment change blocks and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

Operational H1b

H1b: Significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) number of courses of study change blocks and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

Operational H1c

H1c: Significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) seventh grade Michigan Assessment test score change blocks and board of education membership stability (1974-75 to 1978-79) in selected Michigan K-12 public school districts.

Operational H1d

H1d: Significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) operational millage rate change block and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

Operational H1e

H1e: Significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) percentage of minority student change blocks and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

Operational H1f

H1f: Significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) school mission change blocks and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

Operational H1g

H1g: Significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) teacher volunteering change blocks and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

Operational H1h

H1h: Significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) staff conflict and anxiety rate blocks and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

Operational H1i

H1i: Significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) practice of political openness rate blocks and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

General Hypothesis II

Significant multiple regressions ($\alpha = .05$) will be found among the variables studied and board of education membership stability in selected Michigan K-12 public school districts using a stepwise multiple regression test.

Operational H2a

H2a: Significant regression ($\alpha = .05$) will be found between declining pupil enrollment (1972-73 to 1978-79) and board of education membership stability in selected Michigan K-12 public school districts.

Operational H2b

H2b: Significant regression ($\alpha = .05$) will be found between changes in the number of courses of study (1972-73 to 1978-79) and board of education membership stability in selected Michigan K-12 public school districts.

Operational H2c

H2c: Significant regression ($\alpha = .05$) will be found between change in seventh grade Michigan Assessment test scores (1974-75 to 1978-79) and board of education membership stability in selected Michigan K-12 public school districts.

Operational H2d

H2d: Significant regression ($\alpha = .05$) will be found between changes in operational millage rates (1972-73 to 1978-79) and board of education membership stability in selected Michigan K-12 public school districts.

Operational H2e

H2e: Significant regression ($\alpha = .05$) will be found between changes in the percentage of minority students (1972-73 to 1978-79) and board of education membership stability in selected Michigan K-12 public school districts.

Operational H2f

H2f: Significant regression ($\alpha = .05$) will be found between changes in school mission (1972-73 to 1978-79) and board of education membership stability in selected Michigan K-12 public school districts.

Operational H2g

H2g: Significant regression ($\alpha = .05$) will be found between changes in teacher volunteering (1972-73 to 1978-79) and board of education membership stability in selected Michigan K-12 public school districts.

Operational H2h

H2h: Significant regression ($\alpha = .05$) will be found between staff conflict and anxiety (1972-73 to 1978-79) and board of education membership stability in selected Michigan K-12 public school districts.

Operational H2i

H2i: Significant regression ($\alpha = .05$) will be found between the practice of political openness and board of education membership stability in selected Michigan K-12 public school districts.

The Scope and Delimitation of the Study

1. Variables controlled for in this study because each may not be normally and independently distributed are:
 - A. Board of education membership changes that are the result of work retirement; and
 - B. Board member changes due to relocation.
2. This study will be limited to data gathered from 378 Michigan K-12 public school superintendents.
3. The study will not consider the relationship of school building closures and reductions in force on board of education membership stability since previous studies have established a relationship among declining pupil enrollment, school building closures and reductions in force.
4. The conclusions of the study regarding relationships are not intended to show cause-effect but rather direct relationships.

Definition of Terms

The terms used in this study are defined as follows:

1. School District. A K-12 Michigan public school

that operates in accordance with Michigan law.

2. Declining Pupil Enrollment. A loss of K-12 public school students due to a sharp drop in the birth rate, out-migration flight and migration patterns.

3. Courses of Study. Programs of study and educational services in K-12 public schools. Such programs have been categorized as essential and not too essential. Value commitments have been placed on the scope, variety and content by patrons of education.

4. Seventh Grade Michigan Assessment Test Scores. An annual assessment of Michigan's educational progress. An assessment of basic skills at the seventh grade level. An effort by the Michigan Department of Education to provide information on the status progress of Michigan basic skills education.

5. Operational Millage Rates. The millage rate that public schools are authorized by law, by a vote of the residents of a school district or by the county tax allocation board to collect for public school operation. Each authorized mill enables the school district to collect (1) one dollar for each \$1,000 of state equalized valuation.

6. Minority Students. The group of students that differs in race or national origin from the national dominant group of students.

7. School Mission. The transfer of knowledge, skills and societal values to a determined clientele group. The clientele group has traditionally been defined as youth ages 5-18 years of age. Recent changes have redefined the clientele group to include such age groups as pre-school (3 and 4 year olds) and adults (19 years and older).

8. Staff Conflict and Anxiety. The function of the four objectives of public sector unions; (1) to survive and serve members, (2) to seek better wages and hours, (3) to protect job interest, and (4) to develop a system of industrial jurisprudence. These functions include; work actions, mediations, fact findings, grievance arbitrations, agency investigations, and written charges of unfair labor practices.

9. Teacher Volunteering. The rate of teacher volunteering for extra-curricular activities. Such extra-curricular activities include coaching, directing and sponsoring.

10. Political openness. The practice of political techniques that gives a board of education inputs from the patrons of a school district. These techniques include: koffee klatches, opinion surveys, public hearings, and citizen advisory committees.

11. Analysis of Variance. A statistical test of variability among sampled and/or treated populations. A statistical design that produces an F test of significance.

12. Multiple Regression. A statistical regression test that considers several variables simultaneously such that no information is discarded. However, the test assumes parallel relationships and interactions are not tested.

Organization of the Thesis

Chapter I deals with a statement of the problem, the purpose of the study, the importance of the study, a description of the nine independent variables selected for study, some general and operational hypothesis, the scope and delimitation of the study, and definitions of terms used.

Chapter II deals with related literature in the areas of study. In particular, reported studies and writings in the areas of board of education governance and membership, organizational change, declining pupil enrollment, changes in the number of courses of study, changes in assessment and student achievement scores, changes in school finance, changes in minority population, changes in school mission or role, staff conflict and anxiety, and board of education political practice are reviewed.

Chapter III outlines two statistical tests used in the analysis of the data. The method of separating K-12 public school districts into greatest enrollment decline to greatest enrollment growth will be described. Independent and dependent variables for analysis of variance matrices will be defined. Ordinal data scales will be outlined. A multiple regression statistical test for relationships will be presented. Information and scores gathered from the Michigan Department of Education data banks and a survey of selected superintendents will be presented.

Chapter IV describes the variance, level of significance, regressions, correlations and relationships of the nine selected variables to the membership stability of selected Michigan K-12 public schools.

Chapter V will provide a summary of the study's findings and suggest some recommendations for possible future uses of the data.

CHAPTER II

REVIEW OF LITERATURE

The scope and quantity of literature regarding board of education membership changes has increased in the last twenty years. More than eight hundred educational documents, studies, reports, speeches, journals, articles, periodicals and dissertations regarding board of education stability and related variables were screened. More than four hundred sources were selected for specific review. From this review nine variables were selected which may be related to board of education membership stability. These nine variables are:

- I. Declining pupil enrollment
- II. Changes in the number of courses of study
- III. Changes in seventh grade Michigan Assessment test scores
- IV. Changes in operational millage rates
- V. Changes in percentage of minority students
- VI. Changes in school mission
- VII. Rate of staff conflict and anxiety
- VIII. Rate of teacher volunteering
- IX. Variance among school boards in the practice of political openness

The review of the literature will examine board of education membership stability using the following outline:

- I. History and political nature of boards of education

- II. Governance of and by boards of education
- III. Nature of American boards of education
- IV. Structure of boards of education
- V. Change effects on boards of education
- VI. Justification for variable selection
 - A. Declining pupil enrollment
 - B. Changes in the number of courses of study
 - C. Changes in seventh grade Michigan Assessment test scores
 - D. Changes in operational millage rates
 - E. Changes in percentage of minority students
 - F. Changes in school mission
 - G. Rate of staff conflict and anxiety
 - H. Changes in teacher volunteering
 - I. Variance among school boards in the practice of political openness
- VII. Nature and effects of change
- VIII. Organizational response to change and decline
- IX. Summary of previous research

History and Governance of Boards of Education

The history of American boards of education has been divided into three distinct phases by Zeigler, et. al.; phase I covers the period 1835-1900 and labeled "Lay Control"; phase II covers the period 1900-54 and characterized as "Control by Local Professionals"; phase III, the years 1954-1975 is identified as the period of "The Nationalization of Education."¹ The period, 1975 to the present is not labeled; however Zeigler, et. al. stated that ". . .the aspiration of Phase III will be proven unachievable, albeit laudable."²

¹L. Harmon Zeigler et. al., "School Boards and Community Power: The Irony of Professionalism," Intellect 105 (September, 1976): 91.

²Ibid., p. 91.

Examination of American board of education politics prior to 1900 uncovered the existence of:

1. Many local boards of education
2. A "ward-based electoral system. . ."
3. A ". . .substantial amount of patronage. . ."
4. The presence of "corruption"
5. The ". . .substantial opportunity for laymen to influence members of their boards."³

The above conditions led to ". . .a series of articles in national magazines (which) told of political corruption and influence, especially in city schools which were part of the spoils system."⁴ Reformers at the turn of the century objected to the abuse of community control. These objections ". . .marked the beginning of the decline of lay control."⁵ Boyd wrote, "As a result of the public reaction against corruption in government and alleged inefficiency in industrial management--precipitated in large part by muckraking journalists--reformers succeeded in transforming not only the governance of American

³Ibid., p. 90.

⁴Laurence Iannaccone and Frank W. Lutz, Politics, Power and Policy, (Columbus: C. E. Merrill, 1970), p. 57.

⁵Zeigler et. al., "School Boards and Community Power:" p. 90.

municipalities but also that of American school systems."⁶
 Control by local professionals followed. Justification
 for the shift of control was based on the fact that, (1)
 "politics" had no proper place in education, and (2)
 ". . . educational questions were essentially technical
 matters beyond the capacity of the laity to decide, . . ."⁷

The shift has been characterized by Zeigler, Tucker
 and Wilson as ". . . a class based movement aimed at
 shifting the control of schools from laymen to experts."⁸
 They noted that:

The reform movement's major structural modifications
 were the centralization of school administration, to
 be accomplished both by the destruction of the
 authority of community boards and by the merger of
 small districts into larger ones; the abolition of
 ward-based elections; the election of board members
 by non-partisan ballots; and the separation of
 board elections from other municipal and state
 elections. The philosophy behind these structural
 changes was to substitute 'scientific management'
 for political influence.⁹

⁶William L. Boyd, "The Public, The Professionals,
 and Educational Policy Making: Who Governs?" Teachers
 College Record 77 (May 1976): 542-6.

⁷Ibid., p. 543.

⁸Zeigler et. al., "School Boards and Community
 Power:" pp. 90-1.

⁹Ibid., p. 91.

Riggs, president of the school board in Indianapolis, argued that board members ". . . have tried to protect the special status of public schools, and to isolate school board service from the ravages of real-politics,"¹⁰ In structuring an apolitical system of school governance the reformer eliminated the working class influence and replaced it with board composed of ". . . white Anglo-Saxon protestants who were wealthy and well-educated, but not representative."¹¹

This scientific management, bureaucratic, apolitical school governance system worked well for narrowly defined educational goals. When the basic problem to be solved was infusing society with a consistent set of values, the reformed school system worked.

Around 1954, two opposing requirements were placed on schools--that they become agents of social change and that lay control be returned. Prior to the resolution of this conflict, the bureaucratic professional lost control to federal agencies. "As curators of the status quo, . . ."¹² schools had been insulated such that the needs

¹⁰James R. Riggs, "You are a Politician, So Why Not Be an Effective One?" American School Board Journal 166 (March 1979): 36.

¹¹Zeigler et. al., "School Boards and Community Power:" p. 91.

¹²Ibid.

of the undereducated were not being met. The federal government became the catalyst so the needs of the undereducated could be met.

Haney and Madaus described the authority shift not just to federal agencies but to other agencies and organizations which crossed local and state boundaries. These include ". . .teacher unions, the courts, testing agencies, and a range of other educational lobby groups."¹³

School government by the laity, by the professional, or by outside agencies was mentioned in the reviewed literature; however, the shift in governance is not located in the same time frames by all writers. Boyd in particular wrote, "Thus, it is not surprising that the prevailing view on control of public education has shifted from one of community control in the period up to, say, 1950, to one of professional educator control in the period since 1960."¹⁴ This inconsistency may be one of a lack of precise definition.

Whether governance of American schools is by the bureaucratic professional (the superintendent) or by one or more national agencies, Boyd states that the public does not determine ". . .educational policy." He charged ". . .this state of affairs is not only undemocratic but

¹³Walt Haney and George F. Madaus, "Making Sense of the Competency Testing Movement," Harvard Education Review 48 (November 1978): 476.

¹⁴Boyd, "Who Governs?" p. 550.

because it favors the status quo and the vested interests of educators, is also a leading reason for the failure of public education to adequately respond to the diverse and changing needs of the many publics it is suppose to serve."¹⁵

Since 1950, the school board is generally ". . .re-garded as a public or quasi-public corporation. . ." Its powers are limited and ". . .its duties are not essentially local in nature."¹⁶

Governance of and by Boards of Education

The conflict of who governs--the laity, the professional or the agency--has not been resolved. Taebel stated, "Citizen control of schools is negligible, and, in a sense, we have virtually turned over the operation of an important political activity to the technocrats."¹⁷

The proprietorial ownership rights that bureaucratic organizations gave highly trained technocrats¹⁸ conflicts

¹⁵Ibid., p. 540.

¹⁶Jerry D. Crosby, "Some Observations and Suggestion on Desegregation for the School Board," Negro Education Review 29 (July/October 1978): 155.

¹⁷Delbert A. Taebel, "Politics of School Board Elections," Urban Education 12 (July 1977): 153.

¹⁸William G. Monahan, Theoretical Dimensions of Educational Administration, (New York: Macmillan Publishing Co., 1975), p. 204.

with the sovereignty ownership rights of the people. As underscored by these authorities the conflict may lead to changes in either governance, structure, membership, or leadership. Riggs contended that, "One of the most pervasive political powers standing between a school board and its policymaking role is the central office administrative bureaucracy."¹⁹ Cohen mentioned that ". . .special professional competence is the chief authoritative basis for school decision, as opposed to the purely political authority of local citizens."²⁰ Kirst found that ". . . influence in urban and suburban communities is most often concentrated in the hands of persons who hold (now or in the past) official positions in educational institutions or public affairs."²¹ Zeigler asserted that the process is such that we have ". . .taxation without representation."²² Riggs charged that "A highly visible superintendent has a way of perverting the public's attitude toward lay local

¹⁹Riggs, "You Are a Politician," p. 37.

²⁰David K. Cohen, "Reforming School Politics," Harvard Educational Review 48 (November 1978): 432.

²¹Michael W. Kirst, ed., The Politics of Education at the Local, State and Federal Levels, (Berkeley: McCutchan Co., 1970), p. 4.

²²L. Harmon Zeigler, "Creating Responsive Schools," The Urban Review 6 (May 1973): 41.

control."²³ Zeigler, et. al. felt that ". . .most board members do not view their role as representing or speaking for, 'the public'. Rather they view their role as speaking for the administration to 'the public.'"²⁴ In fact Gallup found that in the matter of governance ". . .a majority of U.S. adults does not believe that school boards should have final authority (over decisions of their school administration.) . . ."²⁵

These rather pointed views of who governs may provide conflict for the future. In considering the return to simple lay control Cohen concluded that, "The decline of local lay control may have less to do with political aggrandizement by bureaucrats and professionals than with social and economic changes that make it easy for parents and communities to cede authority and control to professionals."²⁶

²³Riggs, "You Are A Politician," p. 36.

²⁴Zeigler, et. al., "School Boards and Community Power:" p. 91.

²⁵Harold V. Webb, "A New Gallup Study: What the Public Really Thinks of its School Board," American School Board Journal 162 (April 1975): 36.

²⁶Cohen, "Reforming School Politics," p. 431.

Nature of American Boards of Education

The apolitical function of boards of education may have been more rhetorical than real. Iannaccone and Lutz classified boards of education as politically open or politically closed. If the board's values or politics are consonant with those of the community, a closed system is within the zone of tolerance. If the values or politics are separate from the community's, a closed system is outside the zone of tolerance. A mismatch between the values or politics of the community and board may result in change of board membership and policies.²⁷

Change as an American way of life is such that the literature contains rather direct instructions regarding political actions and boards of education.²⁸ Riggs pointed out that, "In my opinion school boards must learn political skill and face up to the reality of political behavior; political lessons can and must be mastered by school board members if they are to preserve what is left of lay control

²⁷Iannaccone and Lutz, Politics, Power and Policy, pp. 85-8.

²⁸Louise Dyer, "It'll Take More Than Kissing Hands and Shaking Babies to Get Re-elected to Your Board This Year," American School Board Journal 161 (September 1974); 19-22.

of public education."²⁹ Black, chancellor of the Board of Regents of New York cautioned that, "Education is in politics, for good or ill. That being so, those of us responsible for educational governance had better be in politics."³⁰ Wegmann, critiqued the political astuteness necessary for winning a seat on the Milwaukee, Wisconsin board of education.³¹

Since the turn of the century boards of education may have operated separate from other governmental functions. Iannaccone and Lutz theorized that:

These provisions may be found in legal statute and often in the written constitutions of the states. When arrangements governing education are imbedded in written state constitutions they are most difficult to change. The existence of special governmental provisions for the public function of education strangely affects the politics of education, especially at the local district level. One affect is to increase the extent to which the governing of education appears to be unique among the public functions of American governments. It is but a single step from this notion to the myth that

²⁹Riggs, "You Are a Politician," p. 36.

³⁰T. M. Black, "Political Role of Educators," Educational Leadership 34 (November 1976): 125.

³¹Ronald G. Wegmann, "How one Determined Man, Unknown, Unloved, and Unfunded Won a Seat on an Important School Board," American School Board Journal 16 (April 1974): 44-5.

education and politics are separate in America, although the significance of that step is great.³²

A 1975 report of Gallup's opinion survey can be interpreted as an indication of the apolitical nature of American boards of education. The opinion survey discovered that:

*Fully a third (34 percent) of all U.S. adults over the age of 18--and one in five parents of public school children--have no opinion (favorable or unfavorable) about their local schools boards. . .

*Nearly two-thirds (63 percent) of U.S. adults--and nearly half (48 percent) of parents--cannot name one single thing their local school boards have done during the past year. Eight percent of parents say their school boards have done 'nothing' in the past year. . .

*. . .

*More than half (53 percent) of adults don't know how many members their local school boards have.

*While only 21 percent of adults say they don't know whether their school board is elected or appointed, another 19 percent are apt to answer the question incorrectly.

*Forty percent don't know how the school board is formulated.³³

In interpreting the above data, Webb concluded that, "It's clear enough from the data that school boards generally are barely visible government. . ."³⁴

³²Iannaccone and Lutz, Politics, Power and Policy, p. 7.

³³Webb, "A New Gallup Study:" pp. 36-7.

³⁴Ibid., p. 37.

The traditional separation of politics may well have separated the board from the people and from lay control. For example, Cresswell and Simpson in examining collective bargaining impacts on school governance maintained that normal checks and balances inherent in political systems control for disruptive behavior. Absent a political check and balance system, the trusteeship orientation of school boards leads to a lack of balanced control. This acting on the basis of principles rather than on behalf of a constituency removes the board from the public and lay control.³⁵ Accordingly, the lack of a majority constituency can act such that a small vocal minority may disrupt the stability of the board's functions.³⁶

Boards of education can be characterized as apolitical, a trusteeship (acting on principles rather than on behalf of a constituency), moving toward political orientation (lay control), separate from other governmental functions, misunderstood by the public, subject to minority and special interest pressures, and elected by smaller voter turnouts than other politicized governmental bodies.³⁷

³⁵Anthony M. Cresswell and Daniel Simpson, "Collective Bargaining and Conflict: Impacts on School Governance," Educational Administration Quarterly, 13 (Fall 1977): 65.

³⁶Ibid., p. 64.

³⁷Taebel, "Politics of School Board Elections," pp. 153-6 and Dyer, "It'll Take More to Get Re-elected," pp. 19-22.

Despite political isolation and unique governance functions, Elam in reporting a decade of Gallup Polls (1968-78) noted that "Citizens of the nation give their school boards a vote of confidence." Sixty-one (61) percent of U.S. adults 18 years or older indicate a fair amount to a great deal of confidence in boards of education.³⁸

Though specific laws, constitutions, practices, and traditions were, and are, affecting the separation of boards of education from political practices, Mitchell and Badarak in a study of political ideology and school board politics concluded that:

- (1) Political ideology has a substantial meaning in the conduct of affairs in local school districts.
- (2) Politically active citizens can reliably identify the political orientation of school board members,
- (3) The policy content of liberalism and conservatism can be effectively measured by the use of the Mitchell Q-sort test of orientation to qualities of classroom experience.
- (4) The policy orientations of school board members reflect their political liberalism/conservatism.
- (5) When school boards change through incumbent defeat, the new board members will have substantially different policy orientations from their defeated predecessors.³⁹

³⁸ Stanley M. Elam, ed., A Decade of Gallup Polls of Attitudes Toward Education 1969-1978, (Bloomington: Phi Delta Kappa, Inc., 1979), p. 358.

³⁹ Douglas E. Mitchell and Gary W. Babarak, "Political Ideology and School Board Politics," Urban Education 12 (April 1977): 78-9.

The absence of a structural check, an even balance, a loyal opposition presents unique problems for governance.

Iannaccone and Lutz projected that:

In the long run, the price paid by schools for their complex one-party and multifactional webwork of semiformal organizations may be costlier than the benefits gained by standing apart from the two-party system.⁴⁰

They pointed out that one heavy price is low voter turnout, and change only in times of controversy and crises. Wirt and Kirst characterized this phenomenon as a feeble trickle of citizen input which can be hit with sudden and severe storms of local stress followed by flash floods of political turmoil.⁴¹ Dyer, an incumbent who lost an election, warned that, "This phenomenon amounts to another of the prices we school board people have paid by our stubborn insistence on remaining purely 'non political'."⁴² In particular he stated that the ". . .absence of political parties. . ." is filled with pressure groups.⁴³

⁴⁰Iannaccone and Lutz, Politics, Power and Policy, p. 20.

⁴¹Floyd M. Wirt and Michael K. Krist, Political and Social Foundations of Education, (Berkeley: McCutchan Publishing Corp., 1972), p. 66.

⁴²Dyer, "It'll Take More to Get Re-elected," p. 23.

⁴³Ibid., p. 22.

Iannaccone and Lutz indicated that the successful operation of a one-party, closed, status quo governance is dependent on ". . .accomodation among various interests. . .". This accomodation without opportunities for criticism produces less change than a more competitive two party system.⁴⁴ However, community and value change necessitates a competing point of view. Shifts in community status or values may separate the board from the educational values of the community.⁴⁵ ". . .groups representing the new set of values are likely to develop a new, competing structure."⁴⁶ The closed, stable board of education probably will not accomodate the new values. "This forces the new population to develop social and political mechanisms that can successfully challenge the old power groups in the district and defeat an incumbent school board member. . ."⁴⁷

The rate of change and the apolitical nature of boards of education may encourage unelected pressure groups. These pressure groups have enjoyed some success. Cohen cautioned that:

⁴⁴Iannaccone and Lutz, Politics, Power and Policy, p. 26.

⁴⁵David R. Eblen, "Local School District Politics: A Reassessment of the Iannaccone and Lutz Model," Administrators Notebook 24 (no. 9 1975-76): 1.

⁴⁶Iannaccone and Lutz, Politics, Power and Policy, p. 95.

⁴⁷Ibid., p. 96.

Another example of the increasing power of politically irresponsible private agencies can be found in school reform. Reform in recent decades--from the curriculum changes following Sputnik to the restructuring of classrooms following the P.A.R.C. (Pennsylvania Association for Retarded Children) decision about educating the handicapped--has for the most part been inspired by private groups responsible to no one but their staffs and trustees. Most of these organizations are not internally democratic (which some unions are). . . . Yet such politically irresponsible groups have considerable influence:. . .⁴⁸

Gorman considered that, "Societal changes have come so rapidly in our time that only the most socially intellectually, and politically alert are able to comprehend . . . the . . . demands upon our institutions."⁴⁹ These changes, these separations of education from politics and these pressure groups may lead to Dryer's assessment of re-election prospects:

This is going to be a murderous year for incumbents at the polls. In case you hadn't realized it, that fact represents a startling turn of events. It used to be the incumbent unless he or she had become a proven charlatan who was the odds-on favorite going into a typical school board election. Now, in case after case, the public mood is favoring the challenger. If you face an opponent this year--one who really wants your seat on the school board--the chances are strong that you're in for a tough fight with no assurances that you'll win it.⁵⁰

⁴⁸Cohen, "Reforming School Politics," p. 433.

⁴⁹Burton W. Gorman, "Change in the Secondary School: Why and How," Phi Delta Kappan 53 (May 1972): 565.

⁵⁰Dyer, "It'll Take More to Get Re-elected," p. 19.

Iannaccone and Lutz's summary of the issue was that:

A governmental unit with an elected governing board making policies cannot exist in a democracy without politics. . . .Decisions affect people and individuals as well as groups that have varying needs and interests.⁵¹

To operate without a political structure in times of change seemingly invites political activity. This political activity may translate into pressure groups. Pressure group-decision making may be substantially undemocratic.

For a single party, closed board of education to govern unchecked, two elements may be necessary : (1) The board's values are substantially equal with the communities' values, (2) The amount and rate of community values is such that the community values do not become different than the board's values. Boyd assumed that ". . .there is evidence that under certain circumstances public officials are inclined to anticipate community demands or, because they and their constituents are like-minded to reflect them in their own policy preferences."⁵² He also indicated that, "Typically, the superintendent and school board are associated with and sensitive to the old values and find it difficult to make political adjustment needed to come to terms with emerging values."⁵³

⁵¹Iannaccone and Lutz, Politics, Power and Policy, p. 95.

⁵²Boyd, "Who Governs?" pp. 559-60.

⁵³Ibid., p. 557.

Iannaccone and Lutz defined this apolitical governance as ". . .low visibility and informal agreement." They underscored the need for "consensus politics."⁵⁴ Cresswell and Simpson postulated that boards of education governance can be illustrated by a ". . .2 X 2 typology:

"Consensus

Vulnerability

High	MEDIUM CONFLICT NOT PERSISTENT	VERY LOW CONFLICT
Low	HIGH PERSISTENT CONFLICT	LOW PERSISTENT CONFLICT

"⁵⁵

By this typology they hypothesized: (1) that boards with high persistent conflict and low consensus are highly vulnerable, (2) that boards with low persistent conflict and low consensus have low vulnerability, (3) that boards with medium conflict not persistent and high vulnerability need high consensus, and (4) that boards with very low conflict and high consensus have low vulnerability. Their hypothesis is related to the impact of collective bargaining and the vulnerability of boards of education. For example, if for the purposes of union strength the board of education is picketed, threatened with recall or harassed, operates with low consensus and has high

⁵⁴Iannaccone and Lutz, Politics, Power and Policy, P. 20.

⁵⁵Cresswell and Simpson, "Collective Bargaining and Conflict:" p. 66-7.

persistent conflict, that board is highly vulnerable.

Change and the impact of pressure groups, such as the growth of public sector unions, seemingly is related to board of education membership stability. Failure by the board to continually develop congruence with community values, develop consensus regarding such values and control pressure groups may lead to incumbent defeat and board membership change.⁵⁶

Congruence with community values and changes in those values may be achieved by informal networks of influence. Small towns and rural communities tend to be conducive to these networks, while heterogeneous communities are not.⁵⁷ Political activities such as "Kaffeklatches"⁵⁸ opinion surveys, and formal and informal hearings are recommended for heterogeneous communities. Riggs wrote, "But a political school board, by its very nature, must understand the needs of the community and must listen to public opinion - sometimes harsh, personal and negative. The political board is one that provides ". . . opportunities for a two-way dialogue with constituents."⁵⁹

⁵⁶Ehlen, "Local School District Politics:" p. 1.

⁵⁷Boyd, "Who Govern?" p. 556.

⁵⁸Wegmann, "How one Man Won a Seat," p. 44.

⁵⁹Riggs, "You Are a Politician," p. 38.

It is implicit in this literature that political activities by the board of education may differ dependent on the size, structure, and change rate of communities. The board that is closed and apolitical may be such because of the absence of these networks. The Cresswell-Simpson typology can be modified to illustrate this hypothesis.

Structure	Networks of Influence	
	Present	Absent
(Political) Open	Hearings-Inf. & Form. Koffee Klatches Opinion Surveys	Instability, Lack of Control, High Conflict
(Apolitical) Closed	Small and Rural Communities. Lack of Community Change	Lack of congruence with Community Values. Pending Board Membership Change

Structure of Boards of Education

The ideal board of education is described by superintendents as one composed of professionals.⁶⁰ "Good board members. . .make decision. . ." based on facts. ". . .they're immovable. . .in the face of pressure groups."⁶¹

⁶⁰Carolyn Mullins, "If Superintendents Could Pick Their Own School Board Members, Here's the Kind They Say They'd Choose," American School Board Journal 161 (September 1974): 27.

⁶¹Ibid., p. 26.

As early as 1894, ". . .retired ministers, farmers. . . over-strong-minded women. . ." were not considered ". . . best members of school boards."⁶² Taebel charged that boards of education disproportionately represent the upper and middle classes.⁶³ In a Michigan Association of School Boards, 1977 "Study of the Composition of Michigan School Boards," Ashmore found that:

- "1. 'Sex' The number of women on boards of education has increased for the third consecutive reporting.

	Breakdown by Sex		
	1972	1975	1977
Male	88.7%	83.9%	73.7%
Female	11.3%	16.1%	24.7%

- "2. 'Age' Board member age became younger between 1972 and 1977. However the predominant age category is 41 to 50 years of age.
- "3. 'Race' The overwhelming majority of school board members is caucasian, (95.1%) though minorities have increased 1.16% since 1972.
- "4. 'Educational level' 79.0% of the respondents. . .had some training beyond high school.
- "5. 'Tenure on Board of Education' In 1977 49% of the respondents had less (sic) than 4 years tenure on the board of education. 70.1% had less (sic) than 7 years tenure.
- "6. 'Household income' A majority (59.9%) of the respondents had a household income of more than \$20,000 in 1977.

⁶²"School Board Members," American School Board Journal 163 (August 1976): 21.

⁶³Taebel, "Politics of School Board Elections," p. 155.

- "7. 'Occupational data' The . . .preponderance of board members fall into the professional and managerial categories. (25.5% and 32.8% respectively)
- "8. 'Political affiliation' Democrats made up 14.2%, Republicans 40.9%, and independents 32.4% of boards of education."⁶⁴

In summary the typical Michigan school board member can be described as white, middle to upper middle class, forty to fifty years of age, male, managerial or professional, educated, conservative and with fewer than seven years experience on the board. However, demographic data indicate a shift to more women and younger members of boards of education.

This school board composition has ". . .prompted some social scientists to condemn school boards as unable to represent their constituencies effectively. Harold Webb, Executive Director of the National School Boards Association, answered the representation question by noting that there may be a tradeoff of "republicanism", and "local citizen control" for an understanding of "the plight of the under-privileged." He specifically opposed any remedy that denied this ultimate decision to the voters or that placed limitations on their choices.⁶⁵ It may be that the extent

⁶⁴Mary K. Ashmore, "1977 Study of the Composition of Michigan School Boards," Lansing, 1977, (Typewritten.)

⁶⁵Harold V. Webb, "School Boards: Whether You've Noticed or Not You've Been Through a Revolution and More Challenging Times are Ahead: Interview," American School Board Journal 164 (June 1977): 22.

of community values that the board of education uses as guidelines are derived as a function of power influences rather than mirrored community representations.

Change Effects on Boards of Education

Community changes that translate into community value changes have been identified in the literature as indicators of school district status change. These changes create differences between a closed board of education and changing values such that the membership of the board of education becomes unstable. Kirkendall in California used changes in (1) assessed valuation and (2) average daily attendance as indicators of community value changes.⁶⁶ LeDoux and Burlingame replicated Kirkendall's study in New Mexico using the indicators Kirkendall used in California--changes in assessed valuation and average daily attendance. In addition in the New Mexico study the change indicator of community decline--both in average daily attendance and assessed valuation--was used.⁶⁷

Eblen partially replicated Kirkendall's study in Cook County, Illinois. He used elementary school district's

⁶⁶Iannaccone and Lutz, Politics, Power and Policy, p. 99.

⁶⁷Eugene P. LeDoux and Martin Burlingame, "Iannaccone - Lutz model of School Board Change: A Replication in New Mexico," Educational Administration Quarterly 9 (August 1973): 50.

occupational, educational, and income levels as indicators of value changes. Eblen did not find a significant relationship between changes in these indicators and board of education membership stability.⁶⁸ Iannaccone and Lutz graphed, but did not test other change indicators which they hypothesized are related to board of education membership change--percentage of graduates entering college, changes in school census, and changes in the number of courses of study offered in high school.⁶⁹

The sum of these indicators may not be all the variables which comprise community values. Specifically, the failure by Kirkendall to establish a replicatable confirmation of the Iannaccone and Lutz theory may be more of a function of too few variables than that of an incorrect theory. The failure by Eblen to replicate Kirkendall's findings may have been due to the use of indirect variables and an inappropriate sample--elementary rather than K-12 school districts. A review of the Iannaccone and Lutz hypothesis pinpoints the necessity to examine more than three community value variables for an adequate test of their theory.

"Hypothesis 1. When a school board remains constant in its membership, the school board (the decision-making central sub-system) of a school

⁶⁸Eblen, "Local School District Politics:" p. 2.

⁶⁹Iannaccone and Lutz, Politics, Power and Policy, pp. 88-91.

district will tend to develop stability (a steady state) between itself and the school district (the macrosystem).

"Hypothesis 2. Such a school board will also tend to develop stability between itself and the superintendent (a microsystem of the decision-making subsystem).

"Hypothesis 3. The development of unity and homogeneity within the school board results in a pattern of consensus rather than a pattern of resolution of conflict in determining policy. Such a decision-making system may be described as having a monolithic structure as opposed to a pluralistic structure.

"Hypothesis 4. Since the board and the superintendent form a consensual decision-making system (a relatively closed central system), the superintendent is likely to become the 'leader' of the board, the board responding to the superintendent's initiation.

"Hypothesis 5. Under the conditions stated in Hypothesis 4, occasional changes in board membership will be represented by men 'selected' by consensus of the board and superintendent. Those men so selected will tend to conform to the established norms of the decision-making group.

"Hypothesis 6. Under the above conditions, when the school district is relatively open and changing (exchanging inputs and outputs with its environment), the gap between the school board and the school district develops and continues to widen, and the board becomes progressively segregated. This situation can develop through the following steps:

- (a) The community changes through population increase or mobility; thus, there is a shift in the community's socioeconomic class.
- (b) Meanwhile the school board remains relatively unchanged in composition and values. It becomes progressively segregated from the school district but not from the superintendent.

"Hypothesis 7. When the school district (the macrosystem) perceives the progressive segregation of its school board (the central subsystem), it will attempt to reverse the process by initiating messages to the board in the hope that these messages (outputs) will be received (become inputs of the board). Being basically a political system, these messages consist of political action.

"Hypothesis 8. When the board becomes progressively segregated from the district, it decreases the linkage between itself and its changing macrosystem. Thus, it decreases the opportunity of processing the necessary inputs for self-correction (the modular effect). School board incumbents will consequently be defeated at election time.

"Hypothesis 9. When an incumbent of a school board is defeated, open conflict on the board results. This conflict will be evidenced in:

- (a) an increase in non-unanimous votes on the board and
- (b) a change in board leadership, initiation, and interaction patterns.

"Hypothesis 10. Conflict will arise between the new member and the leadership group of the old board, particularly the superintendent himself.

"Hypothesis 11. Marginal members of the old board will probably align themselves with the new member and under his leadership will influence the board's decision making."⁷⁰

Hypothesis 6 above defined population growth or mobility as a change indicator. To the extent population growth and mobility are but two of several variables that may effect community and board value differences this hypothesis is inadequate. The second criticism of the test of this theory is related to the difference between indirect and direct variables effects. For example Eblen

⁷⁰ Ibid., pp. 86-87.

in the Illinois study used occupational, educational and income levels as change variables.⁷¹ Kirkendall in California used assessed valuation and average daily membership as change variables.⁷² While changes in average daily membership may be a direct variable, assessed valuation, occupational, educational and income level changes of parents and non-parents may be one ring of influence removed such that they are indirect variables. As such, intervening interactions may confound the results of the research. The third criticism is related to the appropriateness of the subjects studied. In particular, each study cited variables common only to a portion of the school patrons--parents and non-parents. However, patrons include students, teachers, school staff, administrators, parents, and non-parents.⁷³ These studies ignored the political interests Taebel defined as "constituency beneficiaries." This voter is one who has a direct interest, a direct benefit. These are employees and business interests such as contractors. Clientele voter benefits are more generalized

⁷¹Eblen, "Local School District Politics:" p. 2.

⁷²Iannaccone and Lutz, Politics, Power and Policy, pp. 88-9

⁷³Interview with Herbert C. Rudman, Michigan State University, East Lansing, Michigan January 1979.

and less direct in nature.⁷⁴

The task then is to select independent variables such that: (1) all school patron values are represented, (2) no confounding variables are left untested, (3) and current community value changes are fully examined.

Adequate independent variable selection required an extensive literature review. The review had to be extensive such that major value conflicts and subsequent value changes became apparent. While the selection of value change indicators is judgmental, numerous references in the literature are used as the basis for such selection.

Justification for Variable Selection

Declining Pupil Enrollment

The literature refers to several issues that irritate and upset the patrons of public schools. Each of these issues could separately or in combination be related to board of education membership stability and performance.

One such issue or variable is declining pupil enrollment. Sargent defined the issue as the "baby bust."⁷⁵

⁷⁴Taebel, "Politics of School Board Elections," p. 156.

⁷⁵Cyril G. Sargent, "Fewer Pupils, Surplus Space: The Problem of School Shrinkage," Phi Delta Kappan 56 (January 1975): 352.

Berman and McLaughlin defined it as, "Demographic shifts-- a sharp drop in the birth rate, the flight of young middle-class people to suburbia's outer areas, localized migration within and between districts." They characterized it as the ". . .crises of decline. . ."⁷⁶ affecting schools differently due to differences in migrations patterns. Rossell partitioned part of the issue into a separate variable--"white flight"--minimally effected by court ordered desegregation.⁷⁷

By definition declining pupil enrollment is a loss of students due to a sharp drop in the birth rate, out migration flight, and migration patterns.

Mattheis wrote that:

In the Fall of 1971 America's schools opened on a new era. For the first time in the working lives of most teachers and administrators the nation's elementary and secondary schools welcomed a smaller number of students than they had the year before.⁷⁸

⁷⁶U. S. Department of Health, Education and Welfare, National Institute of Education, The Rand Paper Series, The Management of Decline: Problems, Opportunities, and Research Questions, August 1977, p. 305.

⁷⁷Christine Rossell, "Boston's Desegregation and White Flight," Integretive Education 15 (January 1977): 38.

⁷⁸Duane J. Mattheis, "What Shrinking Enrollments May Mean to America's Schools and Students," School Management 18 (June 1974): 8.

Sargent observed that:

In 1950 there were 28 million pupils in elementary and secondary schools. By 1960 there were 42.7 million - a growth of 52%. That same year births hit an all-time high of 4.35 million. All systems seemed to go for larger, and rapidly larger, growth. We had achieved this birth total at a time when the number of women of early child-bearing age--20 to 29--had just bottomed out at about 11 million. Thus the decade should have been the largest baby "take-off" in our history. Children from the larger families of the postwar years were beginning to form their own families; they were expected to provide an "echo boom" to the baby boom generation of the forties.

How did this 'baby bust' affect school enrollments? Predictably, for six years after the drop in total birth began (1961), school enrollments kept building to keep up with them. It was not until 1969-70 that both kindergarten and first-grade enrollments started systematic declines.⁷⁹

The Research Council of Michigan determined that in Michigan, "During the 1950's and 1960's the number of pupils in the public schools grew an average of 50,000 per year and enrollment doubled in size from one million to two million pupils." This enrollment ". . . peaked at 2,212,523. . ." in 1971-72 and will decline by "277,000" students by 1980-81. This is ". . . 12 percent below the 1971-72 high water mark." The council found the cause of decline to be one of

. . . a dramatic drop in the number of births
. . . The largest number of births has dropped
steadily each year except for 1969 and 1970. By

⁷⁹Sargent, "Fewer Pupils, Surplus Space:" p. 352.

1974, the number of births had fallen to a new low of 137,285, 34 percent below the 1957 level (208,488 births).⁸⁰

The mid sixties should have brought the first indications of enrollment decline in public schools. However, as Johnson and Suter pointed out in 1971 there was shift from private elementary enrollment to public elementary school enrollment which delayed the impact of the birth decline on public schools.

The number of children enrolled in private elementary schools has been declining in recent years and the number enrolled in public elementary schools has been increasing. Between 1964 and 1969 the number of pupils in private elementary schools decreased by 19% (a drop of one million students in five years) and at the same time the number enrolled in public elementary schools increased by 11%, or three million students.⁸¹

Enrollment decline has also occurred in some districts because of other societal issues. Levine and Meyer noted that ". . .white enrollment decline has accelerated in schools with a relatively high percentage of black students (above about thirty percent) and/or a recent rapid increase in the percentage of black students."⁸²

⁸⁰Robert E. Pickup, Management of Declining Public School Enrollment, Citizens Research Council of Michigan, 1976, p. 1.

⁸¹Charles E. Johnson, Jr. and Larry E. Suter, "Private Schools: Enrollment Trends and Students' Characteristics," Education 91 (February 1971): 238.

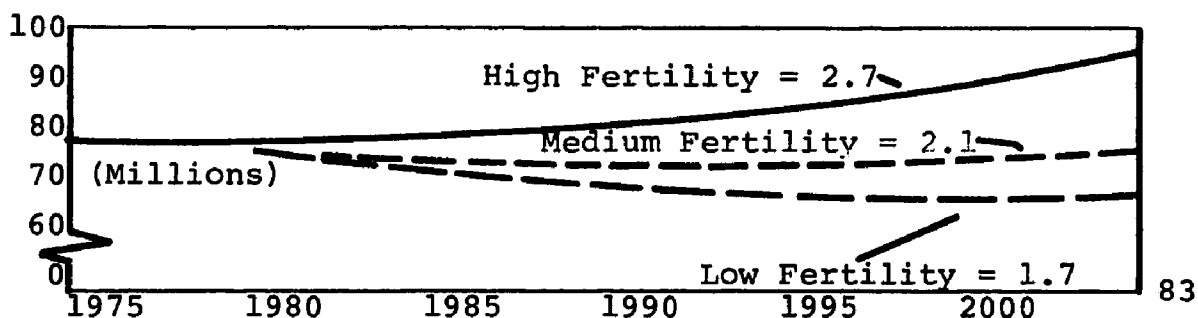
⁸²Daniel V. Levine and Jeanie Meyer, "Level and Rate of Desegregation and White Enrollment Decline in a Big City School System," Social Problems 24 (April 1977): 461.

Current birth rates and expectations of women of child bearing age indicate that enrollment decline in public schools will continue for a number of years. The Population Reference Bureau projected these three future trends.

The three projections differ only on their fertility assumptions which are given as Total Fertility Rates (TFR). The TFR indicates the total number of children women would have if they continued behaving as women do today. In 1974, the TFR was somewhat under 1.9 per woman. . . .the future school age population varies according to fluctuations in fertility assumptions. The low fertility projection is based on the TFR of 1.7 and the high is 2.7. The middle level TFR is 2.1, which if sustained over an extended period would produce zero population growth in the United States (assuming no immigration).

. . .By the year 2000, the elementary level enrollment could decrease by 5.5 million students or increase by either 3 or 15 million. Similarly, the variation at the high school level might range from a drop of 2.5 million to an increase of over 5 million.

Projections of the U.S. School Age Population, 1975-2000
(Aged 5-24)



⁸³"U.S. School Enrollment, 1590-2000," Social Education 41 (April 1977): 322.

Predictions based on the number of children women of child bearing age will bear, are risky at best. Such are affected by uncontrollable forces -- inflation, economic uncertainties, divorce rates, women entering the work force, and disposable family income. Mayer noted that:

The one thing we seem to know for certain about future fertility is that it is going to fluctuate-- based on experience of the past half century. And, the one thing we don't know how to do is predict those fluctuations.⁸⁴

Eisenberger observed a current trend. She pointed out that:

Even Irish Catholics and blacks, who have traditionally reared big families, are now recognizing that the economic future for kids is better if there is a smaller family and two parents at work.⁸⁵

Current patterns indicate a slowed but continuing decrease in births and school enrollment through the year 2000.

Sargent reviewed a Social Security trustee's report which forecast,

. . .a decline in the next few years to an average of 1.7 children for each woman of child bearing age from the current level of 1.9, and then a gradual climb to a rate of 2.1 children. Last year, the assumption was for an increase to 2.1 children without any further decline.⁸⁶

⁸⁴ Martin Mayer et. al., Shrinking Schools, The Report of a National Seminar Sponsored by the Institute for Development of Educational Activities, Inc., (Dayton: IDEA, 1975), p. 10.

⁸⁵ "Ways of Dealing With Enrollment Decline; Telephone Conference with Four City Superintendents," Phi Delta Kappan 60 (September 1978): 21.

⁸⁶ Cyril G. Sargent, "Declining Enrollments: the Numbers," NASSP Bulletin 60 (May 1976): 89.

The Population Reference Bureau reported that:

Changes in the general level of education in a society also affect fertility, mortality, and migration trends. People with more education generally, live longer and have smaller families than those with less education.⁸⁷

Gibson generalized that:

. . .it appears that for young women now, we are talking about a lifetime fertility of just around 2.0 births per woman--which would be the lowest in American history; slightly below the low level reached by women who had to bolster job earnings during the depression. . .⁸⁸

Mayer pointed out the existence of:

A number of emerging societal trends are causing the decline in births. Recent data and extensive analytical testimony from the Census Bureau reveal:

- *Fewer first marriages are occurring. . .
- *Young females are now delaying first marriages. .
- *Some couples are postponing the birth of children.
- *Other couples are opting to have no children at all
- *Fewer families with children are living together as a unit. . .
- *The divorce rate is increasing. . .
- *The remarriage rate is decreasing. . .
- *The percentage of females continuing on to college is increasing. . .
- *The percentage of males continuing on to college is increasing. . .
- *Women 25 to 34 are flocking to universities for advanced degrees. . .⁸⁹

Michigan appears to mirror the national trends.

"According to projections by the Michigan Department of

⁸⁷"U.S. School Enrollment, 1950-2000," p. 32.

⁸⁸Mayer et. al., Shrinking Schools, p. 10.

⁸⁹Ibid., p. 12.

Management and Budget, the number of births will begin to rise slowly through the mid-1980's but this will be followed by a period of downward drift.⁹⁰

Fewer students affect schools, neighborhoods and communities in ways that may create value shifts such that board of education membership changes. Eisenberger set forth the conflict inherent in closing a school. She reported that "The angry mother jumped to her feet. 'NO!' she shouted. 'We don't want our school closed. I don't care what it costs, my kid isn't going to be bused to the other end of town.'"⁹¹ Nolte explained the difficulty of reductions in force necessitated by enrollment declines when he determined that ". . . teacher, who have powerful unions that are going to do their best to make sure that (A) teachers aren't riffed off, and (B), if they are, the process is as fair and even-minded as possible."⁹² Selegmann warned that ". . . if the number of high schools is reduced,

⁹⁰Pickup, Management of Declining Public School Enrollment, p. 1.

⁹¹Katherine E. Eisenberger, "Closing a School: Some Ways to Ease the Trauma," School Management 18 (August/September 1974): 33.

⁹²M. Chester Nolte, "How to Tell Which Teachers to Keep and Which to Lay Off," American School Board Journal 163 (June 1976): 28.

fewer youngsters will have a chance to make a mark in extracurricular activities, ranging from the football team to the debating society."⁹³ Berman and McLaughlin observed that, ". . .the budget cuts brought about by declining enrollment often mean the district pays the same (or even more) for less educational services."⁹⁴ Keough pointed out that:

Dwindling enrollments usually produce a ripple-in-the-pond effect: One toss of the pebble causes countless concentric wavelets to form outward from it. To illustrate, as the number of pupils declines, so does the need for teachers and classroom space. Thus, as the teacher force is reduced and classrooms are filled to less than capacity, the demand for supervisors, principals and other administrators narrows. With the tapering need for personnel and space, fewer buildings are required.⁹⁵

School board response to enrollment decline has been as varied as the problem. "When the Montgomery County, Maryland, school board voted to close six elementary schools . . .parents of students at the threatened Harmony Hills school. . .took their case to the streets." After a 72 hour weekend vigil and sit-in the board of education ". . .voted to rescind its earlier decision to close Harmony Hills."⁹⁶

⁹³Jean Seligmann et. al., "Empty-Desk Blues," Newsweek, 24 April 1978, p. 94.

⁹⁴U.S. Department of Health, Education and Welfare, National Institute of Education, The Management of Decline: p. 313.

⁹⁵Williams F. Keough, Jr. "How to Make the Best of Your School District's Enrollment Slide," American School Board Journal 162 (June 1975): 40.

⁹⁶Seligmann, "Empty-Desk Blues," p. 94.

Decatur, Illinois, used declining enrollment to close two segregated schools, disperse black students such that racial balance was achieved.⁹⁷ The Rodekohrs, using Colorado data, concluded that, "Dropout rates were significantly lower and achievement scores were substantially higher when compared to districts experiencing growth."⁹⁸ They additionally discovered that pupil/teacher ratios were "significantly lower" in declining districts. Sargent indicated that, "Above half the superintendents we spoke with said they had 'mothballed schools.'"⁹⁹ Great Neck, New York, broadened programs to include adults and two and three year olds.¹⁰⁰ Salt Lake City, Utah, used declining enrollment as a basis for terminating unsatisfactory teachers. Thomas, superintendent of the school district stated, ". . .we will not terminate for declining enrollment; however, we will

⁹⁷ Joseph M. Cronin, "City School Desegregation and the Creative Uses of Enrollment Decline," Integrative Education 15 (January 1977): 10.

⁹⁸ Mark Rodekohr and Carol Rodekohr, "A Study of the Effects of Enrollment Decline," Phi Delta Kappan 57 (May 1976): 621.

⁹⁹ Cyril G. Sargent, "Fewer Pupils, Surplus Space:" P. 354.

¹⁰⁰ Katherine E. Eisenberger, "How to Learn to Manage Decline in Your School System," American School Board Journal 165 (July 1978): 36.

terminate more aggressively for cause. . ."¹⁰¹ Hannan and Freeman determined that the ratio of administrators to teachers increases slightly in decline; however, the ratio of teachers and classified employees is smaller in decline."¹⁰² Teachers and administrators in their study held on to their positions at a higher rate than classified employees during periods of declining enrollment.

When ". . .the Evanston (Illinois) school board voted to close three elementary schools. . ." a group of parents filed suit to keep the schools open even though the community seemed to have accepted the plan.¹⁰³ In addition Brody pointed out that:

Evanston, a community adjacent to Chicago, is attempting to use the new facts of life it has to face--enrollment declines and a budget deficit--as a stimulus for educational change. After lengthy study, the school administration developed a 'comprehensive plan' for education that will offer, beginning next fall, both district wide 'experimental' and graded 'traditional' programs at both the elementary and middle school level. Parents can

¹⁰¹"Telephone Conference with Four City Superintendents," p. 23.

¹⁰²John Freeman and Michael T. Hannan, "Growth and Decline Processes in Organizations," American Sociological Review 40 (April 1975): 224.

¹⁰³Judith A. Brody, "How to Close a School and Not Tear Your Community Apart in the Process," American School Board Journal 163 (June 1976): 31.

request to send their children to either of these programs, whose philosophies are widely different.¹⁰⁴

The Evanston board of education viewed enrollment decline and budget problems as a stimulus for change.

Declining enrollment combined with reductions in force has adversely affected affirmative action hiring programs. However, some boards of education have developed unique lay-off and affirmative action programs. Santa Barbara, California, practiced "target recruitment" for those positions that are not fillable with laid-off employees. While this does not fulfill the specific goals of affirmative action it does prevent the destruction of recent gains.¹⁰⁵

Boards of education have responded to the impact of declining enrollment in various ways. Some have used it as a stimulus for long range planning. Some have used it to solve racial imbalances. Some have planned for it, experienced political pressures and retreated from their plans. Other boards have experienced achievement and dropout rate changes without any specific board action. The approach to the problem has been varied. Its effects are undetermined and its solution unrecommended.

¹⁰⁴Ibid., p. 32.

¹⁰⁵Gregg W. Downey, "What School Boards Do When That Irresistable Force Called RIF Meets That Immovable Object Called Affirmative Action," American School Board Journal 163 (October 1976): 36.

Changes in the Number of Courses of Study

Iannaccone and Lutz hypothesized that the changes in the number of courses of study offered in the fictional Robertsdale High School (1954-67) represented value shifts in the community. These value shifts in combination with other community value changes led to board of education membership change.¹⁰⁶ "The Eleventh Annual Gallup Poll of the Public's Attitudes Toward the Public Schools " determined public values toward school courses of study. In particular the poll distinguished between those subjects the respondents rated "essential" and "not too essential." Mathematics, English grammar and composition, civics/ government, U.S. history, science, geography, physical education were rated more essential than interdependence of nations-foreign relations, music, foreign language and art. Gallup found that "substantial difference" existed when he asked:

Public high schools can offer students a wide variety of courses, or they can concentrate on fewer basic courses such as English, mathematics, history, and science. Which of these two policies do you think the local high school(s) should follow in planning their curriculum--a wide variety or fewer but more basic courses.¹⁰⁷

¹⁰⁶Iannaccone and Lutz, Politics, Power and Policy, p. 92.

¹⁰⁷George H. Gallup, "The Eleventh Annual Gallup Poll of the Public's Attitudes Toward the Public Schools," Phi Delta Kappan 61 (September 1979): 40-1.

Opinions were divided such that a national value orientation cannot be determined. The respondents' opinions broke down in the following categories:

"Fewer Courses vs A Wide Variety

	National Totals %	No Children in Schools %	Public School Parents %	Parochial School Parents %	
Wide Variety	44	44	44	43	
Fewer Courses	49	47	53	53	
Don't Know/	7	9	3	4	
No Answer					"108

The North Central Association of Colleges and Secondary Schools defined courses of study as "programs of studies." Accreditation by the North Central Association required at least 38 units of course work. The association defined,

2. A Carnegie Unit is the amount of credit given for the successful completion of a course which meets five days per week for at least 40 minutes daily or the equivalent amount of time throughout one school year of at least 36 weeks. The equivalent time is 120 clock hours.¹⁰⁹

The association also required the following distribution of these minimal units:

- "3.31 Language Arts (e.g., English, speech, journalism) four units.
- 3.32 Science--four units
- 3.33 Mathematics--four units

¹⁰⁸ Ibid., p. 41.

¹⁰⁹ North Central Association of Colleges and Schools, Policies and Criteria for the Approval of Secondary Schools, 1969-70, Boulder, Colorado: Commission on Schools, 1969), p. 14.

- 3.34 Social Studies--four units
- 3.35 Foreign Languages--at least two units of one foreign language
- 3.36 Fine Arts--at least one unit in art and one unit in music
- 3.37 Practical Arts--four units
- 3.38 Health and Physical Education--one unit."¹¹⁰

By definition: (1) the number of courses of study represent value commitments in that the North Central Association prescribed that their distribution be balanced, (2) public opinion of school patrons is divided regarding the expansion of courses of study, (3) substantial changes in numbers may be such a value change that board membership change results. Therefore, the number of courses of study represent a value commitment (Gallup opinion poll and North Central Association) and changes in such may result in board of education membership change.

Historically, debate regarding the purpose and philosophy of education has affected the scope, number, content, and value structure of courses of study. Specifically, Butts and Cremin noted one historical development in that:

Just before the end of the Revolution Samuel Phillips and his brother John drew up a proposed constitution for a school at Andover which would provide the more practical kind of secondary education so emphatically urged by Franklin. According to this document, the Phillips brothers planned to 'lay the foundations of a public free School or Academy for the purpose of instructing Youth, not only in English and Latin Grammar,

¹¹⁰Ibid., p. 15.

Writing, Arithmetic, and those Sciences, wherein they are commonly taught; but more especially to learn them the GREAT END AND REAL BUSINESS OF LIVING.¹¹¹

During the next century public demand for additional courses of study expanded and changed American schools. In particular, Butts and Cremin documented this change by concluding that:

What, then, was the impact of these sweeping cultural changes on proposals regarding the curriculum? Its keynote, perhaps, was expansion. The task of the new common schools was to be the teaching of the common branches, those studies necessary to discharge 'the ordinary duties of life.' This minimum knowledge still centered largely in reading, writing, and common arithmetic, but one of the most characteristic notes of educational activity between 1820 and 1860 was the demand for broader coverage. Spelling, geography, history, government, constitutional law, and any number of other subjects were demanded as 'preparation for citizenship.' Furthermore, such areas as natural science, natural history, physical training, and drawing (usually mechanical drafting rather than representative or creative art) were urged as vitally necessary to a 'complete' common education-- one that would yield a truly 'liberal spirit' and 'trained character.' Generally, such demands for expansion reflected an attempt broadly to educate for citizenship and at the same time to bring the new scientific knowledge to the people. Obviously, they tied closely into the republican ideals and scientific interest which characterized the period.¹¹²

¹¹¹R. Freeman Butts and Lawrence A. Cremin. A History of Education in American Culture (New York: Henry Holt and Co., 1953) p. 196 citing The Constitution of the Phillips Academy in Andover, (Andover: Flag and Gould, 1828), p.3.

¹¹²R. Freeman Butts and Lawrence A. Cremin, A History of Education in American Culture (New York: Henry Holt and Co., 1953) p. 213.

Butts and Cremin also pointed out that this period was characterized by demand for functional and vocational education. This increase in the number of courses of study represented value changes of the patrons of the schools.¹¹³

It is interesting to note that the societal value conflicts regarding courses of study have been such that their resolution was handled by the United States Supreme Court. One landmark example is Meyer v. Nebraska, 262 U.S. 390C 1923, where the court found a Nebraska law prohibiting the teaching of any foreign or modern foreign language to students in grades 1-8 unconstitutional.¹¹⁴

Copperman underscored recent course of study changes that represented value shifts. He specifically noted the changes in new math and new science that were introduced to teach ". . . each child to think for himself, to set his own learning goals, to pace his own learning activities, and to experience repeated success."¹¹⁵ He maintained that ". . . the new math has been an unmitigated disaster for

¹¹³Ibid., p. 214.

¹¹⁴Perry A. Zerkel, ed., A Digest of Supreme Court Decisions Affecting Education (Bloomington: Phi Delta Kappa, 1978), p. 48.

¹¹⁵Paul Copperman, The Literacy Hoax (New York: William Morrow and Co., 1978), p. 61.

America's students."¹¹⁶ Even though value changes in the 60's led to sweeping content revisions, declines in student achievement to date have reversed those innovations. Rickover charged that ". . .educators have made it possible for many students to avoid courses that would provide a solid grounding in the basic academic subjects of reading, writing and mathematics." In fact he observed that ". . . the total number of instructional hours per school year has declined."¹¹⁷

In an attempt to explain achievement test score decline Harnischfeger and Wiley pointed out the fact that:

The total proportion of secondary pupils enrolled in regular courses declined from 88.7 percent to 75.2 percent, a drop of 15.2 percent, while the enrollment in all other courses only increased 5.2 percent (from .517 to .544 courses per pupil). A total drop of almost 8 percent in total English enrollment (from 1.405 to 1.296 courses per pupil) in a two year period is a probable and startling cause of verbal score declines.¹¹⁸

They also found that enrollments declined in foreign language, U.S. history, state history, general mathematics,

¹¹⁶Ibid., p. 64.

¹¹⁷Hyman Rickover, "The Testimony," National Elementary Principal 57 (January 1979): 52.

¹¹⁸Annegret Harnischfeger and David E. Wiley, "The Marrow of Achievement Test Score Declines," Educational Technology 16 (June 1976): 8.

general science and other courses. These and other facts led them to conclude that:

There has been a general enrollment drop in academic courses.

This general decline has come about mostly because of substantial decreases in general course taking which has not been substantially replaced by increases in elective or specialty courses.

There has been a sizable drop in the proportions of pupils enrolling in the traditional basic courses of the college preparatory curricular: algebra, first-year foreign language, chemistry and physics.

. . .

Additionally, there have been extreme drops in more practical courses giving preparation for employment and homemaking.¹¹⁹

They characterized the back-to-the-basics movement as an attempt to counter the neglect of valued skills. They recommended ". . .a reconsideration and debate over educational goals."¹²⁰

The debate, the conflict, the anxiety regarding the numbers, mix, content and scope of courses of study have existed since the revolutionary war. The longevity of the variable may be certain in that Eisenberger speculated that:

In the not-too-distant future, maintenance of advanced level courses will become extremely difficult. In a few years, there very well may

¹¹⁹Ibid., pp. 9-10.

¹²⁰Ibid., p. 11.

not be enough students to offer courses like Spanish IV, French culture, calculus or medieval literature.¹²¹

Extending the debate, Beane recommended that, ". . . the high school of the future. . . transform itself from. . . the subject-centered approach to use of the problems and emerging needs approach."¹²²

The number of courses of study changes necessitated by pupil enrollment decline discussed by Eisenberger, the changes in courses of study necessitated by societal expectation changes alluded to by Beane, the school achievement level decline that Copperman charged is in part related to the numbers and content of courses of study, and the selection of courses that avoid appropriate learning mentioned by Harnischfeger and Wiley are reasons to believe that this variable has some degree of longevity.

The effect of changes in numbers of courses may well follow Copperman's assessment, "In the domain of academic achievement, children tend to learn what they are taught. Conversely, in the same domain, children tend not to learn what they are not taught."¹²³ If declining enrollments and/or

¹²¹Katherine E. Eisenberger, "New Leadership Skills, Declining Enrollments: Implications for the School Curriculum," NASSP Bulletin 61 (March 1977): 52.

¹²²James A. Bean, "The High School: Time for Reform," Educational Leadership 35 (November 1977): 130.

¹²³Copperman, The Literacy Hoax, p. 54.

financial cutbacks necessitate such change Eisenberger's projection may prove true, ". . . massive program cutbacks, staff reductions, course eliminations, and a community that has learned to live with less." Living with less may lead to an increased decline in academic achievement.

In summary the variable--changes in the number of courses of study--was included for study because:

1. Prior hypothesis had been developed that assumed a relationship between it and board of education membership stability.
2. It has a long history of debate, reference, and change.
3. It is referred to frequently in the literature.
4. The divergence of opinion regarding its importance in the literature portends continued impact on public schools.

Board of education response to the issue has been varied. Eisenberger observed that fewer students and fewer dollars mean ". . . a decrease in the number of subject area offerings . . ." These ". . . potential threats . . . necessitate a new management."¹²⁴ Bickert, board president of the New Trier High School District near Chicago, indicated that it was impossible to get away from the phone when courses of

¹²⁴Eisenberger, "New Leadership Skills," p. 48.

study were eliminated because of financial retrenchments.¹²⁵ The Citizens Research Council of Michigan found that the Grosse Pointe, Michigan, board of education eliminated classes that do not maintain a minimum number of students.¹²⁶ Moberly, Superintendent of the Seattle, Washington, School District, projected the need for ". . . magnet schools with differentiated curricula and different styles of instruction. . ."¹²⁷ To attract students these schools would have ". . . a variety of educational program. . ." Bancroft predicted that "Teachers in high schools with enrollments less than 600 probably will have to take on at least three preparations."¹²⁸ Sebulsky suggested that "In the past we found ourselves in constant turmoil to expand curricular offerings, facilities and programs. With pressure relieved, we now have an excellent opportunity to concentrate on improving instruction and solidifying the

¹²⁵Gregg W. Downey, "How One of North America's Greatest Public High Schools is Being 'Equalized' to Death," American School Board Journal 163 (August 1976): 37.

¹²⁶Pickup, Management of Declining Public School Enrollment, p. 31.

¹²⁷"Telephone Conference with Four City Superintendents," p. 24.

¹²⁸Michael A. Bancroft, "Scheduling for Elective Courses," School and Community 61 (January 1975): 10.

curriculum."¹²⁹ The Citizens Research Council of Michigan recommended "Split classes; Shared classes or joint programs between two or more school districts; Change in the grade level organization of school buildings; and, Change in the scope or design of curricula."¹³⁰

Changes in the Seventh Grade Michigan Educational Assessment Test Scores

The third variable to be considered is based on change; change in measurable basic skills at the seventh-grade level at two time intervals. The variable has generated ". . . considerable public discussion and debate. . ."¹³¹ Harnischfeger and Wiley observed that ". . .achievement test score declines have, without any deliberation, been valued negatively, and blame has been immediately thrown on schools and teachers." They specifically indicated that reported achievement declines are ". . .presently being taken to support or initiate diverse movements."¹³² Diverse

¹²⁹Wayne L. Sebelsky, "What Are Schools Doing," NASSP Bulletin 60 (March 1977): 59.

¹³⁰Pickup, Management of Declining Public School Enrollment, p. 21.

¹³¹John M. Throne, "Has the Key to the Mystery of Drops in Standardized Test Scores Been Discovered?" Educational Technology 16 (July 1976): 17.

¹³²Harnischfeger and Wiley, "Test Score Declines," p. 7.

movements may reflect significant value differences in a community. Such value differences may translate into board of education membership change.

The history of standardized student achievement measurement can be divided into several stages. For the purposes of this study the following periods are identified: 1900-1918 (experimentation and formulation of standardized measurement and testing) 1918-1945 (refinement and general acceptance of standardized measurement), and 1965-1979 (conflict, anxiety, and decline in measureable achievement which has resulted in various value debates).

Butts and Cremin pointed out the E. L. Thorndike's three volume work entitled Educational Psychology demolished ". . .the assumptions of idealism about consciousness, faculty psychology, mental discipline, and transfer of training."¹³³ Given this, "Virtually every subject in the school curriculum was now to be examined, analyzed, and tested by connectionist psychologists."¹³⁴ The work of Binet, Simon, Cattell, Terman, Goddard and Judd ". . .was so profoundly influential that by the end of the World War I the scientific movement permeated

¹³³Butts and Cremin, A History of Education, p. 338.

¹³⁴Ibid., p. 339.

every aspect of education."¹³⁵ Ross and Stanley explained the measurement movement as an attempt to correct the scandalous difference in passing, failing, marking, and grading students' work.¹³⁶ Numerous early studies were cited by them which received professional and media attention such that methods of measurement changed substantially.¹³⁷

The period 1918-1945 was one of development in measurement and testing. Ross and Stanley noted that "Two years later (1923) appeared the first edition of the well known Stanford Achievement Test, which, with successive revisions, has continued to set a high standard."¹³⁸ Other important measurement devices were pioneered, published, researched and used during the period. These included measurements of character, personality and interest.¹³⁹

¹³⁵Ibid., p. 439.

¹³⁶C. C. Ross and Julian C. Stanley, Measurement in Today's Schools, (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1954), p. 38-41.

¹³⁷Ibid., pp. 36-44.

¹³⁸Ibid., p. 44.

¹³⁹Ibid., pp. 46-52.

The period 1945-65 was one of development, expanded use and general acceptance of measurement, the scientific method and testing. It was a time of "critical caution."¹⁴⁰ "The emphasis has turned to quality. . .rather than quantity."¹⁴¹ Test usage became a tool for diagnosis rather than just an instrument for screening, selecting, and sorting. Borg unknowingly projected a time of crises and conflict when he indicated that "Because much of the increase in funds for educational research has occurred insce 1958, a great many studies of great significance started since that date,. . ."¹⁴² This expectation of increased effect of schooling brought about by research and improved diagnostic tools may have led to value difference between schools and school patrons in the late sixties and seventies.

Michigan in the 1969-70 school year established a state wide achievement testing program. First called "The Michigan Assessment of Education"¹⁴³ it has a two-fold purpose:

¹⁴⁰Ibid., p. 58.

¹⁴¹Ibid., p. 56.

¹⁴²Walter R. Borg, Educational Research (New York: David McKay Co., 1967), p. 11.

¹⁴³Michigan Department of Education, Superintendent of Public Instruction, Purposes and Procedures of the Michigan Assessment of Education, August 1969 preface.

"(1) the planning and development of a state program for a periodic and comprehensive assessment of education progress, and (2) the immediate assessment of basic skills at two grade levels during the 1969-70 school year."¹⁴⁴

This may have opened the era of conflict, anxiety and public recognition of decline in student achievement.

Haney and Madaus considered assessment or minimum-competency testing as a "latest verse" in the ". . . notion that schools need more scientific management."¹⁴⁵ During this time period (1974) the College Entrance Examination Board ". . . released newspaper articles stating that scores on the Scholastic Aptitude Test (SAT) were falling."¹⁴⁶

According to Copperman student achievement scores began declining on the Scholastic Aptitude Test in 1963.¹⁴⁷ The "College Board News" 1979 information bulletin published by the College Board News graphed continuing student achievement score decline through the 1978-79 school year.¹⁴⁸

¹⁴⁴Ibid., p. iii.

¹⁴⁵Walt Haney and George F. Madaus, "Making Sense of the Competency Testing Movement," Harvard Educational Review 48 (November 1978): 473.

¹⁴⁶Leo A. Munday, "Changing Test Scores, Especially Since 1970," Phi Delta Kappan 60 (March 1979): 496.

¹⁴⁷Copperman, The Literacy Hoax, p. 38.

¹⁴⁸Margorie Marable, ed., The College Board News, September 1979, p. 2.

Kapfer, et. al. reported that "changing values" have led to a decline in student achievement.¹⁴⁹

The variable - changes in seventh grade Michigan Educational Assessment Test Scores - may be such that its longevity is relatively certain. If Harris is correct, three change conditions plus one instrumental problem have led to changes in achievement test scores; ". . . changes in society, changes in the schools, changes in the testing population and problems with the test."¹⁵⁰ To the degree that each of these variables have longevity, the achievement score change may continue.

The decline of achievement test scores increased public interest in student achievement and methods of measurement. Pipho observed that, "State by state, school district by school district, the pressure is mounting for someone to do something about both the assumed and the real dwindling school academic standards."¹⁵¹ This pressure led to more

¹⁴⁹Philip G. Kapfer, Miriam Bierbaum Kapfer and Assahel D. Woodruff, "Declining Test Scores: Interpretations, Issues and Relationship to Life-Based Education," Educational Technology 16 (July 1976): 7.

¹⁵⁰William U. Harris, "The SAT Score Decline: Facts, Figures and Emotions," Educational Technology 16 (July 1976): 7.

¹⁵¹Chris Pipho, "Minimal Competency Testing: A Look at State Standards," Educational Leadership 34 (April 1977): 516-20.

than half of the states adopting some form of minimal competency testing. Pipho characterized the pressure as a ". . .trellis with forces and counterforces all trying to make changes while the existing governance and political structures continue to grow or just hold on to the status quo."¹⁵²

State wide basic achievement testing and public concern may continue for some time. Haney and Madaus pointed out that, "Conservatives support it because of concerns over costs; liberals favor it to promote more quality education for all children."¹⁵³

A reasonable question would seem to be one that asks the causes of student achievement decline. Harnischfeger and Wiley discussed one cause when they noted that:

Compositional changes of test-takers have been brought about in grades 5-12 by a sharp decrease in pupil dropout rate, which has been especially pronounced for higher grade levels. From 1950 to 1968 the pupil dropout rate fell from 50 to 25 percent. Since then it has been stable. This fact implies that considerably greater numbers of pupils who a decade ago would have dropped out of school and therefore not taken tests, are now in fact taking tests. These students typically are in the lower achievement ranges and might thus account for a part of the general achievement decline.¹⁵⁴

¹⁵²Ibid., p. 517.

¹⁵³Haney and Madaus, "Making Sense of Testing Movement," p. 477.

¹⁵⁴Harnischfeger and Wiley, "Test Score Declines," p. 6.

Sapone and Giuliano listed nineteen possible causes:

- "1. Recent curricular changes. . .
- "2. . . .massive organizational change.
- "3. . . .compositional changes in secondary school retention.
- "4. The average number of days attended per enrolled pupil has dropped. . .
- "5. The proportion of pupils in academic courses has decreased at every grade level.
- "6. A total drop of almost 11 percent of English enrollments in a two-year period is a probable and startling cause of verbal score declines.
- "7. There has been an enrollment decline of 7.5 percent in high school foreign language.
- "8. History enrollment, . . .have been redistributed markedly. . .
- "9. The total number of courses per pupil in mathematics has decreased from 0.768 to 0.713. . .
- "10. Course enrollment in the natural sciences in 1970-71 and 1972-73 has decreased consistently in general science (grades 7-12); biology (first year); chemistry (first year); and in physics (first year).
- "11. A 1973 Gallup Poll, which assessed public attitudes toward "The Importance of Education to Success," showed that the rate of endorsement of this concept increased with age. Students currently in school do not strongly support this concept.
- "12. The current teaching force as a whole, though better qualified, is less experienced than that of the 1960's.
- "13. Teacher mobility. . .might be an indicator of pupil outcomes.
- "14. Course enrollment declines parallel closely the test score decline patterns.
- "15. TV ownership and the amount of time that families spend viewing television has continually increased.
- "16. The National Institute on Drug Abuse (NIDA); reports that 8 - to 14 - year-olds constitute the fastest growing group of drug users.
- "17. Large increases in the proportion of working mothers result in less time being spent in family relationships.
- "18. The number of illegitimate children has climbed precipitously--the percentage of such births more than tripling between 1948 and 1974.

"19. The decline in SAT scores, . . ., directly reflects the increased family size of the post-war years and the students' later-birth orders.¹⁵⁵

To the degree that each of the above possible causes are societal and value oriented, achievement decline may be difficult to reverse.

Opinions are sharply divided regarding the use of achievement test. The Kapfers et. al., reviewed the polarization. They suggested that,

The educational ax grinders on the left are basically opposed to the use of standardized testing data as a basis either for making important program decisions for schools or for making critical life decisions for students.the educational ax grinders on the right tend to interpret test score declines by urging us to get back to the "basics," to traditional methods and values, to sound discipline, to greater control of students in schools;. . .¹⁵⁶

Haney and Madaus contended that many people are convinced that ". . .the schools are not turning out illiterates."¹⁵⁷ This public interest has caused public value changes and pressures. Hogan and Judy indicated that,

¹⁵⁵Carmelo V. Sapone and Joseph R. Giuliano, "The Test Score Decline: Are the Public Schools the Scapegoat?" Educational Technology 16 (June 1976): 43-4.

¹⁵⁶Kapfer, Kapfer, and Woodruff, "Declining Test Scores:" p. 6.

¹⁵⁷Haney and Madaus, "Making Sense of Testing Movement," p. 475.

"The popular logic says it's because the kids can't read, can't write, and can't 'rithmetic, and the solution is the 'back to basics' movement."¹⁵⁸ Pipho warned that, "As adults read daily about lower test scores and rising education costs, and then look at their own child's performance or the ability of the high school graduate they just hired at work, both the problem and their recommended solution take on a sense of personal urgency."¹⁵⁹

The effects of declining test scores may be difficult to isolate if intervening variables are ignored. For example, the Rodokohrs, using Colorado data, concluded ". . .that decline (enrollment) had unexpected effects. Drop-out rates were significantly lower and achievement scores were substantially higher when compared to districts experiencing growth."¹⁶⁰ In this study appropriate statistical analysis will be necessary to determine the presence of such confounding variables.

The effect of changing student achievement scores is one of ". . .an unending flood of newspaper editorials,

¹⁵⁸Robert F. Hogan and Stephen, "Back to Basics Controversy," Media and Methods 13 (September 1976): 17.

¹⁵⁹Pipho, "Minimal Competency Testing:" p. 516.

¹⁶⁰Rodekohr and Rodekohr, "A Study of Enrollment Decline," p. 621.

news columns, magazine articles, radio broadcasts, and television broadcasts bemoaning the ignorance of young test takers and the ineffectiveness of public schools."¹⁶¹ Rickover charged that it is a ". . .sign . . .that our educational system is falling behind the needs of our society."¹⁶² It may be an ". . .easy rationale for broadly condemning the public schools--making them the scapegoat and thereby avoiding the need to carefully study the entire phenomenon."¹⁶³ Finally it may be pressure in the form of questions at public board meetings that ask, "Why can't Johnny write? What's the matter with our schools. . .? Why aren't teachers doing something about writing problems students appear to be having? Is there anything teachers can do about these problems?"¹⁶⁴

This "good deal of heat" can be translated into dissatisfaction such that board membership may be changed.

¹⁶¹Norman R. Dixon, "Testing Its Impact on Expectations, Practice, Accountability," Educational Leadership 35 (January 1978): 295.

¹⁶²Rickover, "The Testimony," p. 48.

¹⁶³Sapone and Giuliano, "The Test Score Decline:" p. 43.

¹⁶⁴Gabriel Della-Piana, Lee Odell, Charles Cooper and George Endo, "The Writing Skills Decline: So What?" Educational Technology 16 (July 1976): 31.

Even though there are numerous journal articles and books regarding school achievement and measurement there is little information regarding individual school district response to this issue. School organizational response may well be one of ". . . bowing to testing pressures rather than intellectually challenging them."¹⁶⁵

In summary, public concern regarding student achievement as measured by a standardized test such as the Michigan Educational Assessment test (1) has had a long history, (2) sharply divided the public and educational community, (3) may have considerable longevity, and (4) is of such public interest that political pressure may be applied to local boards of education.

Changes in Operational Millage Rates

The fourth variable is based on political change; change in Michigan that requires a vote; change that is political in nature such that there are at least two opinions -- a "yes vote" and a "no vote"; change in the operational millage rates at two time intervals. Change that is concurrent with an:

. . . energy crunch (which) will unquestionably demand a greater share of the incomes of all persons for this commodity thus leaving less purchasing power for other goods and services. Currently, the percentage of proposals for increased taxes for supporting education, that are being defeated,

¹⁶⁵Dixon, "Testing Its Impact," p. 196.

is the greatest in history. Despite these stresses, some teachers groups are demanding astonishing wage increases and lighter teaching loads."¹⁶⁶

Change for increased property taxes when there are:

At least four major criticisms. . . leveled at the local school property tax in the context of urban schools.

First, it is said that the tax discriminates against poor people since they live in poor central city school districts. Poor school districts spend less money per pupil than wealthy districts.

Second, the tax is said to be regressive.

Third, the tax is alleged to impose special overburdens on central cities.

Fourth, the tax is supposed to encourage middle-class flight to the suburbs.¹⁶⁷

Change in the form of property tax increases when "New state and federal mandates (of required courses and services, without the provision of categorical aid to cover extra costs) compound the problem."¹⁶⁸

Change in many school districts experiencing declining enrollment when:

Fewer pupils clearly mean less state aid. Without a state level adjustment for enrollment decline,

¹⁶⁶George G. Mallinson, "You Can't Pump Water When You Ain't Got No Well!" School Science and Math 75 (November 1975): 576.

¹⁶⁷Thomas Jones, "School Property Tax Reconsidered," Educational Quarterly 14 (Spring 1978): p. 103.

¹⁶⁸Jerry D. Bailey, Lila E. Fitschen and Patricia A. All, "Declining Enrollments: Advancing Concerns" Compact 12 (Summer/Fall 1978): 4.

locally raised revenues per pupil in high decline districts will probably increase more rapidly than state aid per pupil to compensate for the increase costs. For the vast majority of states that have equalizing aid formulas, local school districts will be affected on the capacity side of the state aid calculation as well as the distribution side. A greater-than-average pupil decline will mean a greater-than-average increase in the local tax base per pupil, when all other factors are held constant. A district so affected will then receive less state aid as a result of its greater relative wealth.¹⁶⁹

Declining enrollments effect both the expenditures and the revenues of a district. As enrollment drops, per pupil expenditures rise unless the over-all expenditure level is reduced proportionately to the decline of pupils. In addition, declining enrollments can have a dual impact on the revenues of the school district because general state school aid is distributed on the basis of the number of pupils (the workload of the district) and the amount of state equalized value behind each pupil (local financial resources).¹⁷⁰

The history of school finances is punctuated with debate, charges, countercharges, legal challenges, political turmoil, and referendums. In the landmark decision Charles E. Stuart and Others v. School District No. 1 of the Village of Kalamazoo and Others (1874) the Michigan Supreme Court found that:

While, nominally, this is the end sought to be attained by the bill, the real purpose of the suit is wider and vastly comprehensive than this brief statement would indicate, inasmuch as it seeks a

¹⁶⁹ Robert J. Goettel and Robert E. Firestine, "Declining Enrollments and State Aid: Another Equity and Efficiency Problem," Journal of Education Finance 1 (Fall 1975): 208.

¹⁷⁰ Pickup, Management of Declining Public School Enrollment, p. 8.

judicial determination of the right of school authorities, in what are called union school districts of the state, to levy taxes upon the general public for the support of what in this state are known as high schools, and to make free by such taxation the instruction of children in other languages than the English. . .

. . . We supposed it had always been understood in this state that education, not merely in the rudiments, but in an enlarged sense, was regarded as an important practical advantage to be supplied at their option to rich and poor alike, and not as something pertaining merely to culture and accomplishment to be brought as such within the reach of those whose¹⁷¹ accumulated wealth enabled them to pay for it. . .

Stuart established the obligation of the general public to provide by taxation (property) a free and available public education for all children--rich or poor.

During the 1920's George D. Strayer and Robert M. Haig developed the foundation program plan for the funding of public schools. The plan was first introduced and used in New York. It was basically a method of providing state aid to local districts. Benson, et. al., illustrated the plan with an example. They conjectured:

Suppose it is determined that a satisfactory offering costs \$1,200 per student per year. If the richest district has an assessed valuation of \$40,000 per student, then a levy of \$3 per hundred of assessed valuation will finance the school program in the richest district. All districts would be expected to tax themselves at the \$3-per-hundred rate or higher. Every district but the richest would receive some state aid, just enough to meet the

¹⁷¹William R. Hazard, Education and the Law (New York: MacMillan Publishing Co., 1971), pp. 27-8.

deficiency between the yield of the \$3-per-hundred levy and the cost of the minimum offering. A district with 39,000 of assessed valuation per student would receive \$30 per student from the state. Likewise, a district with only \$2,000 of assessed valuation per student would receive from the state \$1,140 for each of its students. Thus all districts could provide the minimum offering while paying a local tax at no higher rate than would be paid for a \$1,200 program in the richest district.¹⁷²

The authors pointed out that the dollar value of the minimum offering was set so low that most districts had to exceed it. In practice a foundation grant is authorized, which rewards the richest districts and penalizes the poor ones.¹⁷³

The school finance reform movement which ". . . probably began around 1955. . . was preceded by a growth in student population where . . . the chief task of the American educational system seemed to be that of providing additional physical facilities for the millions of new students who turned up at the door of the schoolhouse."

Beginning in 1955, continuing through the 1960's and climaxing in the 1970's educators discovered: ". . . that educational offerings varied tremendously from school district to school district, and that poor districts usually provided poor education."¹⁷⁴

¹⁷²Charles S. Benson et. al., Planning for Educational Reform, (New York: Publishing Co., 1971), pp. 27-8

¹⁷³Ibid., pp. 23-4.

¹⁷⁴Ibid., p. 33.

In the early 1970's a coalition of educational finance reformers funded by the Ford Foundation and the National Institute of Education moved state to state to equalize efforts and spending for education.¹⁷⁵ These groups were influential to the extent that (1) a majority of the states had adopted some form of educational finance reform by the late 1970's, (2) several state court decisions had laid the main legal framework for finance reform. Examples of such are Serrano v. Priest in California¹⁷⁶ and Robinson v. Chall in New Jersey.¹⁷⁷

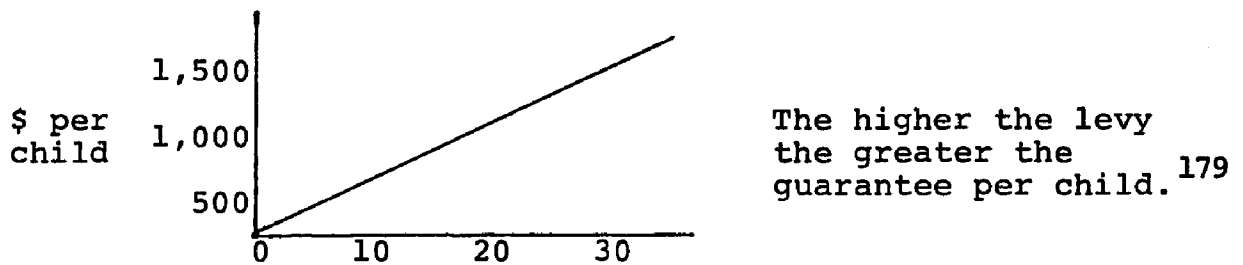
These court decisions, these coalitions, and public pressure for equality of opportunity led Michigan and other states to legislate adoption of the (DPE) district power equalizing formula.¹⁷⁸ This plan is also known as the equal-yield-for-equal-effort formula. In its simplest form it operates as graphed below. The guaranteed yield-per-pupil combined with local property tax and state aid is a function of the number of mills levied rather than the property wealth of the district.

¹⁷⁵Michael Kirst, "The New Politics of State Education Finance," Phi Delta Kappan 60 (February 1979): 427.

¹⁷⁶Benson et al., Planning for Educational Reform, p. 39.

¹⁷⁷*Ibid.*, p. 44.

¹⁷⁸*Ibid.*, pp. 51-2.



The equal-yield-for-equal-effort-formula combined with "Taxpayer resistance to successive tax hikes. . ."¹⁸⁰ set the stage for an ". . .impending clash of two opposing finance reform movements and their political networks."¹⁸¹ The one movement is that of school finance reformers. The other is that of National Tax Limiters. In Michigan Proposal "E" or the Headley Amendment was adopted by the voters in November of 1978. It followed the guidelines set forth by the National Tax Limitation Coalition. These were; (1) to tie spending increase limits to a cost of living adjustment, (2) to limit increase in, but not destroy, taxes, (3) to preserve bond ratings, and (4) to insure that new mandated programs are funded by the state.¹⁸²

¹⁷⁸Ibid., pp. 51-2.

¹⁷⁹Ibid., p. 51.

¹⁸⁰Richard K. Miller, "The Current Status of Public School Finance," Educational Horizons 54 (Fall 1975): pp. 39-40.

¹⁸¹Kirst, "The New Politics," p. 427.

¹⁸²Ibid., p. 428.

"Support of education through general taxation was achieved only after a long and bitter fight."¹⁸³ Following a 261 percent increase in cost for public education between 1960 and 1970,¹⁸⁴ educational finance reform to equalize educational opportunity was legislated in Michigan and a majority of the states. This reform was concurrent with an ". . .average enrollment nationwide. . .(decline of) 2.3 percent, but the average cost of educating our children from kindergarten through high school increased 56 percent." The increased cost, pressure for greater effort via operation millage rate increases, decreased revenue due to enrollment decline,¹⁸⁵ combined with "taxpayer revolt"¹⁸⁶ may well lead to patron dissatisfaction such that membership on boards of education becomes unstable.

¹⁸³R. Freeman Butts, "The Role of Public Schools, What Future for Public Education," Current 152 (June 1973): 21.

¹⁸⁴Lee K. Davies, "School Board's Struggle to Survive," Educational Leadership 34 (November 1976): 98.

¹⁸⁵Bailey et. al., "Declining Enrollments: Advancing Concerns," p. 4.

¹⁸⁶"Schools Spending Cut to the Bone and Beyond, United States," Times (London) Educational Supplement 9 June 1978, p. 3.

School finance conflict has a rather sustained history. If yesterday is a predictor of tomorrow its longevity may be guaranteed. Black observed that for education the ". . . days of wine and roses are gone, and fiscal austerity is the order of the day."¹⁸⁷ McBride reviewed some of the bases for conflict when he advised:

But in spite of declining enrollments, costs and school tax rates are still climbing. Some of the reasons include the rapid increase in number of expensive-to-educate children, such as the handicapped, and the higher percentage of high school graduates entering some type of post-secondary education. And there is inflation in the cost of energy and purchased materials and services, as well as rising salaries (which make up 75-80% of school costs). Moreover, there has been no offsetting increase in school economic productivity of the kind characteristic of the private sector.¹⁸⁸

He also determined that education cost ". . . between 7.5 and 8 percent of the Gross National Product." He pointed out, "There are real limits on tax revenues for all governmental functions and real limits on revenues for one of government's most crucial functions, education."¹⁸⁹ He predicted a ". . . continuation of current declining percentages of state/local revenues for the public schools in the fact of continuing inflation will do little more

¹⁸⁷ Black, "Political Role," p. 123.

¹⁸⁸ Robert H. McBride, "Where Will the Money Come From? Financing Education Through 1980-81," Phi Delta Kappan 58 (November 1976): 248.

¹⁸⁹ Ibid.

than maintain a minimal no improvement program, in spite of declining enrollments,"¹⁹⁰

According to Goettel and Firestine, districts experiencing declining enrollments ". . . are affected fiscally by reductions in state aid that occur with the disproportionately rising costs of higher levels of teacher training and experience and relative inability to reduce the fixed costs of school operation and maintenance."¹⁹¹

In addition Neil projected a decrease in pupil/teacher ratios to 19.4:1 by 1985.¹⁹² Bruacher, predicted that: "Teacher militancy will cause more resources to be allocated to education."¹⁹³ However, Jordan and Hanes cautioned, "In several states, increased funds for education are in essence frozen except for additional appropriations and allocations from states' sources. . . . funding for education may enter a recession marked by cutbacks in educational services and programs."¹⁹⁴

¹⁹⁰Ibid., p. 153.

¹⁹¹Goettel and Firestine, "Declining Enrollments and State Aid:" p. 215.

¹⁹²George Neill, "High Schools Enter New Era of Declining Enrollments," Phi Delta Kappan 59 (October 1977); 138.

¹⁹³John W. Bruacher, "Why Teacher Militancy," Educational Leadership 27 (October 1969): 31.

¹⁹⁴K. Forbis Jordan and Carol E. Hanes, "Financing Education in an Era of Limits," Phi Delta Kappan 57 (June 1976): 678.

Davis and Lewis predicted an extended conflict when they contended:

One certainty is an aging population, and numerically at least, one that is less youth-centered. Whether fiscal conservatism is an inevitable consequence is unclear, but age-specific self interest is likely, and aging babies from the boom years will be in their prime years and enfranchised in leaner times.

One consequence of slower economic growth is reduced revenues and tighter budgets and a dampened orientation toward expansiveness. Inflation will, as it does now, affect rising school costs, and goods and services will be available at higher prices under tighter budgets.¹⁹⁵

Loss of revenue due to declining enrollments, increased cost due to inflation, or mandated programs alone or in combination translate into tax hikes. Tax rate hike requests in the form of changes in operational millages may result in value differences between the board of education and the patrons of the school district. It is currently such a critical issue that Miller observed, "Taxpayer resistance to successive tax hikes has become more solidified and intense over the past few years."¹⁹⁶

As cited earlier, expenditures for public education have increased substantially. Fuhrman pinpointed an effect of

¹⁹⁵Russell G. Davis and Gary M. Lewis, "Coping with Declining Enrollments," NASSP Bulletin 61 (March 1977): 4.

¹⁹⁶Miller, "Current Status of School Finance," p. 39.

this increased cost when suggested that:

That states are increasingly interested in accountability is clear; minimal competency testing has virtually swept the nation. Legislative commitment to spending caps as a means for curbing expenditure growth as well as closing expenditure gaps is intensifying. Legislators in both reform states and in those which are considering reform want to know what districts which have benefited from increases in state support do with the money. Available studies indicate that new money goes into new programs rather than into salary windfalls for teachers. Legislators want to know what kind of new programs and how meaningful they are. In addition, state officials are aware that if teachers' salaries are not rising astronomically, fringe benefits, particularly pensions, have been. The actual anxiety, the worry over whether money is truly producing quality education is heightened by nationwide evidence of falling pupil achievement.¹⁹⁷

The concern has resulted in ". . .resounding taxpayer revolt aimed at the support of public education."¹⁹⁸

This patron concern translated into resistance to higher tax rates combined with teacher demands for increased salaries or job security may result in ". . .no option except to reduce educational programs and services."

Complicating the issue is the school finance reform movement in Michigan and other states. In Michigan the legislature adopted the district power equalizing formula.

¹⁹⁷ Susan Fuhrman, "Politics and Process of School Finance Reform," Journal of Education Finance 4 (Fall 1978): 172.

¹⁹⁸ Robert Kehres, "School Organization; a Drastic Overhaul is Needed," Clearing House 48 (February 1974): 323.

To the extent equalizing and equal-yield-for-equal-effort causes a lessening of expenditures in high expenditure districts and an increase in efforts in low expenditure districts ". . .a movement toward mediocrity. ."199 may have occurred. The movement toward mediocrity may have the effect on board members that it had on the New Trier, Illinois, High School District board members. Equalizing there resulted in program cuts such that board members were bombarded with phone calls and complaints.200

Berman and McLaughlin pinpointed the issue in those districts experiencing enrollment decline ". . .the budget cuts brought about by declining enrollment often mean that the district pays the same (or even more) for less educational service."201 One reason for the increased cost for less service is cited by the Michigan Educational Research Council when they found that:

With the passage of legislation in 1974, school districts became subject to coverage under the state unemployment compensation program. School employees became eligible for employment benefits in generally

199 Jordan and Hanes, "Financing Education," p. 678.

200 Stanton Leggett, "How Will Equalizing School Finance Effect Your School?" Independent School 36 (May 1977): 24.

201 U.S. Department of Health, Education and Welfare, National Institute of Education, The Management of Decline: p. 313.

the same way as other covered employees. However, a school employee under contract may not receive benefits between two school years, such as during the summer recess. Under the state system, the administering agency (Michigan Employment Security Commission) bills the school districts for the amount paid out on a reimbursable basis.

Because this is a cost to the school district, it is a matter to be considered. The costs have varied widely depending on the magnitude of layoffs. At the present time, the cost to the Birmingham school district comes to about \$1,000 per month and in Livonia, \$10,000 per month.²⁰²

The specific relationship of operational millage rate changes on board of education membership stability has not been referred to in the literature. However, certain conclusions were noted; (1) fifty-two percent of the U.S. population over age 18 were dissatisfied with property tax as a way of raising money for schools,²⁰³ (2) projected jump from \$75 billion expenditures in 1975-76 to \$100.4 billion expenditures in 1985-86 in uninflated dollars for educating fewer students ". . . poses a critical public relations problem. . . ." ²⁰⁴

The study will ask certain questions regarding organizational response to this issue. Specifically are board members sacrificing their position for inflation, increased revenues and reduced programs?

²⁰²Pickup, Management of Declining Public School Enrollment, pp. 20-1

²⁰³Elam, A Decade of Gallup Polls, p. 361.

²⁰⁴Neill, "High Schools Enter New Era of Declining Enrollments," p. 138.

Changes in Percentage of Minority Students

The fifth variable is one of conflict, anxiety and change, conflict, anxiety, and change such that definitive and dramatic steps are necessary for a district to achieve racial balance in its schools. Hazard mentioned that, "Colloquially stated the local school board frequently finds itself damned (by local voters) if it 'does' and damned (by state or federal authorities) if it doesn't."²⁰⁵ Levine and Meyer estimated that, ". . .white enrollment decline tended to accelerate in schools with a relatively high percentage of black students."²⁰⁶ Griffore predicted that the change may translate into an ". . .emotional litigation process." and/or "Countless board meetings, committee reports and public hearings, climaxed by the recall of school board members supportive of desegregation, . . ."²⁰⁷

This history of minority separation, segregation and treatment difference in the United States is rather long

²⁰⁵Hazard, Education and the Law, p. 124.

²⁰⁶Daniel V. Levine and Jeanie Keeny Meyer, "Level and Rate of Desegregation and White Enrollment Decline in a Big City School System," Social Problems 24 (April 1977): p. 452.

²⁰⁷Robert J. Griffore et. al., "Lansing, Michigan," Integrative Education 16 (March/April 1978): 28.

and well documented. Cliff noted that:

Prior to the Civil War, if and when Negroes received any of the rudiments of education, it was almost always on a segregated basis depending on the will and desire of white slave owners or white leadership in the area. In the South after the Civil War, segregated education had the sanction of state and local laws. In some of the border states, permissive segregation was written into statutes. Before the 1954 Supreme Court decision on segregated education, some states of the North had segregated schools which state laws permitted but did not make mandatory. In the 1920's and the depression years of the 1930's some segregated schools came into existence in the North and border states at the request of some Negro leaders.²⁰⁸

The practice of de jure (by law) and de facto (by practice) segregation of black and whites existed with Supreme Court sanction (Plessy v. Ferguson 163 U.S. 537, 1896) until the court found that ". . . separate is inherently unequal " in Brown v. Topeka in 1954.²⁰⁹ Since the mid sixties the courts have ordered remedies ranging from cross district busing (Swann v. Charlotte-Mecklenburg)²¹⁰ to the

²⁰⁸Virgil A. Cliff, "The History of Racial Segregation in American Education," School and Society 88 (May 1960) cited by Hazard, Education and the Law, p. 127.

²⁰⁹Brown et. al., v. Board of Education of Topeka et. al., 347 U.S. 483 (1954) cited by Hazard, Education and the Law, p. 155.

²¹⁰Swann v. Charlotte-Mecklenburg Board of Education, 402 U.S. 1 (1971) cited by Philip K. Piele, ed., The Yearbook of School Law 1978 (Topeka, Kansas: National Organization of Legal Problems of Education, 1978), p. 231.

inclusion of the whole school district (Keyes v. School District #1)²¹¹ as remedies.

This cross intradistrict busing has disrupted the neighborhood school syndrome. Wright, an appeals court judge, in 1965 contended that:

Initially public school authorities must be cured of the neighborhood school syndrome. The neighborhood school, like the little red school house, has many emotional ties and practical advantages. The neighborhood school serves as the neighborhood center, easily accessible, where children can gather to play on holidays and parents' clubs can meet at any time.²¹²

The extent and scope of this neighborhood school syndrome combined with racial prejudice and fears may have produced the effect that Crosby discovered. He cautioned that:

For over two decades numerous school boards across this country have been preoccupied with some form of desegregating pupils and staffs. Until recently, the process tended to generate each year accelerated resistance and disruption. With the advent of busing as one means of desegregating pupils, disruptive climates traveled to more and more communities. In some instances, the disruptions were manifested in the form of open violence. In those school districts where resistance and disruption were the strongest, the results have been large losses in state revenues

²¹¹Keyes v. School District No. 1. 413 U.S. 189 (1973) cited by Piele, Yearbook 1978, p. 228.

²¹²J. Skelly Wright, "Public School Desegregation: Legal Remedies for DeFacto Segregation," New York University Law Review 40 (April 1965): 297 cited by Hazard, Education and the Law, p. 137.

due to drastic declines in pupil enrollments; reduction in business activity; and even the exodus from the districts of valuable industries. In short, it has been demonstrated that extended resistance to school desegregation (including busing) can hasten the destruction of entire communities.²¹³

The change in percentage of minorities, the resultant shifts in value structures of the community, the conflicting pressures may well be present for some time. For example, the values of the black and white liberal community is in a state of flux. Schmandt, et. al., described this value flux as an "ambivalent" "position" due to four distinct orientations.

1. "The majority of whites, whatever their personal predispositions, pay lip service to school integration as a desirable goal but maintain that it should be achieved by voluntary means."
2. "Some (blacks) place the major stress on forced integration and support massive busing plans for this purpose;"
3. "others feel that quality education should be the overriding objective and desegregation secondary;"
4. ". . . others, now a small minority, continue to call for black control of their schools."²¹⁴

Bullock and Rodgers outlined another white majority value orientation that may prolong the problem in the North and in Michigan when they observed that:

²¹³Jerry D. Crosby, "Some Observation and Suggestions on Desegregation for the School Board," Negro Education Review 29 (July/October 1978): 154.

²¹⁴Henry J. Schmandt, George Dorian Wendel and John T. Manns, "Government, Politics and the Public Schools: A Preliminary Study of Three Cities," Integrated Education 16 (May/June 1978) 19.

Desegregation may also be more difficult in the North because many officials and citizens in these areas still believe that northern segregation is not the result of racial discrimination. They believe that as long as the law never required segregation existing separation is not illegal. Believing that their segregation is legally acceptable, northern officials may be quite reluctant to desegregate.²¹⁵

Levine underscored the value orientation that deepens and prolongs the issues when he related that:

As long as families have no assurance that their children will attend schools in which conditions favor rather than undercut learning, it hardly seems possible to halt or reverse the process of racial and social-class turnover of neighborhoods and concomitant decay in the tax base of the central city, accompanied by urban sprawl in the suburbs and deterioration in the overall quality of life in the metropolitan area.²¹⁶

Candoli was even more specific regarding the longevity of the problem when he remarked, "I don't think that the problems of institutional racism will be solved in my lifetime,. . ."²¹⁷ Therefore, given ambivalent value orientations, beliefs in the legality of current practices,

²¹⁵Charles S. Bullock III and Harrell R. Rodgers, Jr., "Coercion and Southern School Desegregation: Implications for the North," School Review 83 (August 1975) 656-7.

²¹⁶David V. Levine, "Integration in Metropolitan Schools: Issues and Prospects," Phi Delta Kappan 54 (June 1973): 655.

²¹⁷Cassandra A. Simmons, "An Interview with Carl Candoli," Integrative Education 16 (March/April 1978): 34.

and family mobility, the shifts in minority percentages in some school districts may well be a long continuing issue.

Several effects of this societal issue may not be directly related to the percentage of minority student change. Schmandt et. al. observed that "top community leadership," political as well as business, is separating itself from the ". . . educational delivery system. . . ." Schools are there lacking "elite support."²¹⁸ Griffore and others in a study of student achievement following adoption of a "cluster plan" that required busing found that:

Busing, in and of itself, apparently does not have a consistent effect on achievement. *The achievement scores of whites and minorities were subjected to gain score analysis. It was found that, on the average, minorities remained below whites.²¹⁹

Griffore and others prior to the cluster plan in Lansing observed that:

Although the racial composition of the elementary schools improved, the one-way busing program maintained the neighborhood school policy for white students and placed the burden of desegregating the school system disproportionally on black students. .²²⁰

Rubin reported that the issue has created value difference such that whites are pitted against whites. The lower class white values,

²¹⁸Schmandt et. al., "Government, Politics and the Public Schools," p. 20.

²¹⁹Griffore et. al., "Lansing, Michigan," p. 30.

²²⁰Ibid., p. 29.

. . .the 3 R's, 'more discipline in the classroom,' 'end sex education,' and 'get rid of sensitivity training and of liberal teachers who are trying to brainwash my kind.' . . .the upper-middle-class liberals answer that they expect the schools to encourage 'spontaneity,' 'innovativeness,' 'initiative,' 'flexibility,' 'independence,' and, above all, not stifle 'the natural curiosity and creativity with which children come to school.'²²¹

Carison pinpointed racial isolation which ". . .created mistrust between blacks and whites and makes them fearful of having their children in the same schools and classroom," He also mentioned that busing and the neighborhood school phenomena has created social upheaval.²²²

Cronin pointed out that the subsidized federal highway and mortgage policies have drained the central cities of white middle-class students.²²³ Rossell in an analysis of media coverage of school desegregation concluded that ". . . newspapers often resorted to cliches like 'massive busing,' 'wholesale changes,' 'busing turmoil,' and 'white flight' where more precise wording would have been appropriate."

²²¹Lillian B. Rubin, "White Against White: School Desegregation and the Revolt of Middle America; Richmond, California," School Review 84 (May 1976): 375-6.

²²²Muriel Paskin Carrison, "Busing: Is That Really the Public's Complaint?" Thrust 8 (October 1978): 16.

²²³Joseph M. Cronin, "City School Desegregation and the Creative Uses of Enrollment Decline," Integrative Education 15 (January 1977): 11.

The media tended to emphasize conflict or negative outcomes.²²⁴

Indirect and related effects are associated with this variable. These are; (1) separation of community leadership from schools, (2) little, if any, effect of busing on school achievement, (3) blacks disproportionately bearing the burden of integration, (4) whites pitted against whites dependent on their political ideology, (5) racial isolation that creates mistrust, (6) federal highway and mortgage policies which helped create and continue the issue, and (7) news media coverage that inflames the issue.

The effect of the issue on boards of education can be placed on a continuum from (1) assignment of guilt by a court to boards of education, (2) the application of pressure on boards by special interest groups, (3) the call for and application of community control, (4) the recall and/or defeat of incumbent board members. In particular Grant in drawing the line between de jure and de facto desegregation, noted that:

This legal standard was upheld by the U.S. Supreme Court in 1973 in its decision in the Denver case, and there have been about two dozen federal court decisions outside the Brown decision which have followed this process in establishing the guilt

²¹⁴Christine H. Rossell, "The Effect of Community Leadership and Media on Public Behavior," Theory Into Practice 17 (April 1978): 134.

of a local board of education in a school desegregation case.²²⁵

Crosby suggested that the guilty board is sometimes less than willing to assume the guilt and act accordingly. He warned that:

The school board should accept the fact that it has lost a court case. Much of the turmoil that tends to follow a desegregation order is due to the school board not accepting the fact that it has actually lost the fight in a court battle. The guilty party is always subject to penalties and/or corrective actions. . . .It is only when the school board does not administer its own penalty gracefully that the court prolongs its supervision.²²⁶

Pressure groups are formed as a result of this issue. They are ". . .born in a crisis. Their story is the story of people who are fed up and angry, tired of backing politicians and entrenched bureaucratic agencies."²²⁷ Many of these are ". . ., the new underclass in our metropolitan areas." They criticize superintendents and boards through the superintendent for "On the one hand . . .their failure to develop innovative programs and improve education equality and, on the other, for not sufficiently stressing educational basics and enforcing discipline."²²⁸

²²⁵William R. Grant, "Media and School Desegregation," Integrative Education 14 (November 1976): 13.

²²⁶Crosby, "Suggestions on Desegregation," p. 158.

²²⁷Velma A. Adams, "Taxpayers Out to Change the Schools," School Management 18 (June, 1974): 22.

²²⁸Schmandt et. al., "Government, Politics and Public Schools" p. 18.

The pressure groups may call for community control. Community control may divide current school systems such that the control of education would be ". . . shifted from a centralized administration to neighborhood level community-school councils."²²⁹ This community control may take the form of

Decentralization (which) implies total reorganization of a school system's administrative structure to bring decision making closer to the level of individual schools and to give individuals more power to influence policy decisions. It reduces the number of bureaucratic channels through which one must negotiate before decisions are made.²³⁰

Pressure groups can and have changed board of education membership. This change may be in either of two methods. "In Detroit, a school board which took actions increasing desegregation was voted out of office followed by a board opposed to desegregation."²³¹ In Lansing, "On November 7, 1972, these five board members who voted in favor of cluster desegregation were recalled from office. The governor then appointed five interim members to serve on the board until a special election was held in January 1973. At

²²⁹Ray C. Rist, "Race and Schooling: Key Policy Issues," The Educational Forum 40 (May 1976): 517.

²³⁰Robert L. Green, "Community Control and Desegregation," School Review 81 (May 1973): 348.

²³¹Rachel Thompkins, "Preparing Communities for School Desegregation," Theory Into Practice 17 (April 1978): 108.

that time five candidates endorsed by anti-busing faction/ Citizens for Neighborhood Schools were elected."²³²

Organizational response is seemingly related to the longevity and extent that changes in minority percentage influence white flight, protest and general unrest. Rossell presented data which demonstrated that, ". . .community leaders simply hide from the issue."²³³ However, ". . .leadership 'con' statements regarding school desegregation is positively related to protest during the entire pre-desegregation school year."²³⁴ This behavior may lead to a snowballing that eventually destroys the board member that uses fear and prejudices for short-term advantages. The long term effects may cost him or her membership on the board of education.

Percentage of minority change such that minorities comprise more than 30% of the school may translate into a demographic shift (white flight). This demographic shift may translate into fewer students in a school district (accelerated declining enrollment). These fewer students

²³²Griffore et. al., "Lansing, Michigan," p. 28.

²³³Rossell, "Effect of Leadership and Media," p. 133.

²³⁴Ibid., pp. 134-5.

may translate into fewer dollars (less state aid). These fewer dollars may translate into reduced services and programs (reductions in force). This reduction may translate into patron dissatisfaction with the board of education. This dissatisfaction may translate into board member change.

Changes in School Mission

School mission is the function or scope of the ". . . responsibilities of the schools."²³⁵ For this study it is narrowed to a change such that "education services"²³⁶ are added to the responsibilities of the schools. Specifically it is change, change in the addition of the educational services -- "pre-school and post-high-educational opportunities. . ."²³⁷ In a period of shrinking number of clientele, it is ". . .greater outreach. . ."²³⁸ It is an effort by Michigan educators to practice American Business techniques when the clientele ages change.

²³⁵Pickup, Management of Declining Public School Enrollment, p. 23.

²³⁶Herbert C. Rudman, "Between Us," Michigan Elementary Principal (November/December 1970): 10.

²³⁷Pickup, Management of Declining Public School Enrollment, p. 23.

²³⁸Davis, "Coping with Declining Enrollments," p. 5.

Apparently, Johnson and Johnson did their homework better than American educators. Realizing the probability of drastic changes in the birthrate, they began test marketing new advertising approaches in 1967. These ads are the ones we are seeing on television today persuading the public that 'baby products' are just as good for adults as for babies. And the results show. 'Our (Johnson and Johnson Baby Products) business is twice the size it was five years ago and three times the size it was ten years ago. The number of babies has gone down by a third during that time. You have to find new markets for the product you are selling.'²³⁹

It is the relationship among changes in school mission which may or may not stabilize board of education membership. It is a broadening of the school's mission to increase public acceptance such that dissatisfaction will be lessened.

The extent and scope of this issue is such that Eisenberger speculated that:

I think we're reaching a point where our professional groups--the American Association of School Administrators, the National Association of Elementary School Principals, the National Association--should be concerned with affiliating with each other as well as with the American Association of Retired People.²⁴⁰

AFT President Shanker contended that he wanted the ". . . nation's school systems to become involved in pre-school education. This theoretically would solve two problems: what to do with an excess of teachers and how

²³⁹Mayer et. al., Shrinking Schools, p. 22.

²⁴⁰"Telephone Conference with Four City Superintendents," p. 25.

to improve the quality of education."²⁴¹ Geisert, superintendent of the New Orleans schools, recommended that ". . .older people . . .come into the schools. We have a volunteer program involving thousands of older people. They find out what's going on in the schools. We have institutionalized that program."²⁴² Hill predicted that,

. . .teacher groups will apply many kinds of pressure to get these surplus teachers gainfully employed. School districts and legislatures will be asked to push the starting age of school down to 4 or 3, and many kinds of 'pre-school' or nursery and child-care programs will be advocated.²⁴³

Beane suggested that schools use surplus space for:

Part or fulltime offices for medical doctors, psychologists, and youth agencies might be set up in the school as a means to bring the school in closer connection with other aspects of youth living. As adults make increasing use of the school, local libraries, counseling services, and adult complements to youth agencies might also use school facilities.²⁴⁴

While there is no direct literature reference regarding expansion of the school's mission and board of education membership stability, Gallup does discuss the issue in a group of three recommendations. He recommended that,

²⁴¹Mayer et. al., Shrinking Schools, pp. 22-3.

²⁴²"Telephone Conference with Four City Superintendents," p. 22.

²⁴³Frederick W. Hill, "Statistics, Liars and Figures," American School and University 48 (November 1975): 19.

²⁴⁴Beane, "Time for Reform," p. 131.

"Unless measures are taken to alter present trends, a rocky and troubled future can be predicted for the public schools."²⁴⁵ He also advised that, "One way to make certain that the public school system continues to command the strong support of the vast majority of citizens is to involve more citizens in the schools and in the educational process. ." He then specifically pointed out that:

1. Greater efforts should be made to expand adult education and to use the schools as a meeting place for community affairs and cultural events.
2. The function of the school board is largely unknown or misunderstood.
3. Courses for parents, . . . , could and should involve scores of parents, bringing them into closer contact with teachers and school administrators.²⁴⁶

It can be concluded that Gallup's observations and recommendations would result in an expanded school mission to reverse and neutralize the shrinking public support of public schools.

While Gallup's recommendations are untested, they are based on a decade of public opinion polling regarding attitudes toward education. Whether an expanded mission creates satisfaction such that the public supports a stable status quo board of education is an important question for this study.

²⁴⁵Elam, A Decade of Gallup Polls, p. 3.

²⁴⁶Ibid., pp. 4-5.

School organizational response to this issue ranged from some straight-forward expansion to some rather creative ones. For example, The Citizen's Research Council of Michigan found, "Between 1973-74 and 1975-76, adult enrollment increased about 28,000 full-time equivalent students. Of the 2,128,396 enrolled in 1976-76, about 58,000 were fulltime equivalent adults."²⁴⁷ The council also documented that ". . .five of the 17 school districts (studied in Southeastern Michigan) gaining over 500 pupils had sizeable increases in the number of adult pupils. In some cases, increases in adult enrollment offset and actual decrease in K-12 enrollment."²⁴⁸ They indicated that, "There has been a phenomenal growth in full-time equated adult education in the Grand Rapids school district."²⁴⁹

Eisenberger reported that the Great Neck, New York, schools added a rudimentary language skills program for two-and three-year-olds. The school district also broadened ". . .program offerings to include adults and . . . (expanded) curriculum to encompass such matters as how to deal with mid-life career changes, . . ."²⁵⁰

²⁴⁷Pickup, Management of Declining Public School Enrollment, p. 2.

²⁴⁸Ibid., p. 3.

²⁴⁹Ibid., p. 23.

²⁵⁰Eisenberger, "How to Learn to Manage Decline," p. 36.

Gores reported that, "One Florida school board has discovered that the best way to carry a bond issue for a new school or addition there is to include some shuffleboards as part of the proposal if the electorate is superannuated."²⁵¹

Savitt mentioned that, "One school district is looking into the possibility of using schools for housing the elderly, while a Long Island district may soon be selling a school that will be converted into apartments for unmarried singles."²⁵²

Mayer and others reported that:

Already in many areas pressure is being put on school systems to open school cafeterias to senior citizens. This is but a harbinger of things to come. It heralds the beginning of an era in which the maintenance of shuffleboard courts may be considered as important as maintenance of schools. Within a few years, it will be standard practice to convert empty schools into citizens' cultural centers.²⁵³

In summary, the literature indicated that boards of education should expand their role, change their mission. Boards may need to service a population growing older and previously unserved in order to reverse shrinking

²⁵¹Harold B. Gores, "Declining Enrollment and Options for Unused Space," NASSP Bulletin 60 (May 1976): 93.

²⁵²Robert F. Savitt, "Utilization of Surplus School Buildings," NASSP Bulletin 61 (March 1977): 34.

²⁵³Mayer et. al., Shrinking Schools, p. 28.

confidence and support. Specifically, the literature mentioned two expansions among others. Boards of education may be expanding to serve pre-school and adult students.

Rate of Staff Conflict and Anxiety

The seventh issue is one of variance; the variance among school districts in staff conflict and anxiety, and the relationship of this variance to board of education membership stability. It is a societal issue in that it is combined with the growth of "Public Unions and the Decline of Social Trust."²⁵⁴ It is an effort by public employees not to be treated as second class citizens.²⁵⁵ It is a reflection by public employees of ". . .diminished confidence and trust in the political state and its governing bureaucracy."²⁵⁶ It is such that ". . .school board members and superintendents say teacher bargaining is their primary pain."²⁵⁷

²⁵⁴Robert A. Nisbet, "Public Unions and the Decline of Social Trust," collected in Lawrence A. Chickering, Public Employee Unions (Lexington, Massachusetts: D.C. Heath and Co., 1976), p. 29.

²⁵⁵Daniel Kruger, "Collective Bargaining in the Public Sector," lecture delivered at Michigan State University, 31 March 1978.

²⁵⁶Nisbet, "Public Unions and the Decline of Social Trust," p. 29.

²⁵⁷"Here's What Your Fellow Boards are Doing About Teacher Bargaining," American School Board Journal 164 (June 1977): 28.

It is an effort ". . .to alter the balance of power in the educational power structure."²⁵⁸ In declining enrollment districts ". . .the increased militancy of teachers and consequent expansion of union influence, budgets have become an even greater problem for those districts already receiving less financial aid from the state." It is a crunch of societal issues such that "The reduction in force, demanded by declining enrollment, and the financial crunch creates additional problems. It is difficult to hire minorities and women in compliance with district affirmative action goals and guidelines."²⁵⁹ It is the mood of organizations growing older: ". . .shrinking, showing wrinkles, and being presented with a too-long list of things we must give up."²⁶⁰

It is the function of the four objectives of unionism - (1) to survive and to serve members, (2) to seek better wages and hours, (3) to protect job interest and (4) to develop a system of industrial jurisprudence.²⁶¹ It is by

²⁵⁸Charles W. Cheng, "Minority Parents and Teachers' Collective Bargaining," Integrative Education 16 (March/April): 112.

²⁵⁹Bailey et. al., "Declining Enrolments: Advancing Concerns." p. 5.

²⁶⁰M. Chester Nolte, "How to Tell Which Teachers to Keep and Which to Lay Off," American School Board Journal 163 (June 1976): 28.

²⁶¹Kruger, "Collective Bargaining in the Public Sector," 26 May 1978.

definition the specific methods that public unions use to achieve the objectives of unionism. It is the rate that grievances are processed, unfair labor charges are filed, work actions are executed, agency investigations and hearings occurred, mediations were held, and factfindings were made.

Public sector bargaining, unionism, resultant staff conflict and anxiety began in the early 1960's. In 1962 President Kennedy signed executive order #10988 which provided a "meet and confer" arrangement for collective bargaining in the Federal Service. This order set the stage for other public segments to follow. Reapportionment of state legislatures in the 1960's shifted the political base from rural conservative to urban liberal areas. As a result state legislatures began passing enabling-public-sector-bargaining legislation. The Michigan legislature adopted the Public Employees Relations Act in 1965. The Act encouraged the growth of public-employee unionism. Unionism in public employment grew as public employment substantially expanded and public employees chanted: "Why be second class citizens?"²⁶²

The longevity of the issue is dependent on societal forces that continue threats to public employees' sense of security and belonging. In particular, the longevity of

²⁶²Ibid., 31 March 1978.

the issue is dependent on two societal issues clashing head on. Both issues asked for power. Both asked for governance of the schools. The union view was expressed by Cogen in 1969 when he declared, "The sooner our boards of education realize the obsolescence of the 'right to manage' concept. . the sooner will there be more peaceful and constructive approaches. . ." ²⁶³ The other governance view was explained by Webb who concluded that, "Too many school boards are bargaining away their policy-making function and, therefore, the public's to the unions." ²⁶⁴ And by Cheng who cautioned that:

. . .the collective bargaining process, if it continues on its current path, may well serve as a formidable barrier to parent participation in educational decision-making in general and minority parent participation in particular. ²⁶⁵

In particular governance and politicizing of school policy-making by these opposing forces may strip boards of education of much of their function. Since functions and power are relinquished slowly, the longevity of the issue is relatively certain.

²⁶³ Charles Cogen, "What Teachers Really Want From School Boards," American School Board Journal 156 (February 1969): 10.

²⁶⁴ Harold V. Webb, "School Boards: Whether You've Noticed or Not You've Been Through a Revolution and More Challenging Times are Ahead: Interview," American School Board Journal 164 (June 1977): 23.

²⁶⁵ Cheng, "Minority Parents and Collective Bargaining," p. 112.

Conflict and anxiety may generate from a variety of sources. School finance support decline, combined with affirmative action and enrollment decline, may produce the effect Downey mentioned in that:

Money-starved school systems across the U.S. are being forced this year to fire the same black teachers and women administrators who the federal government demanded they hire only a few years ago. This, when the imperatives of Reduction in Force (RIF) collide with the civil right mandates of Affirmative Action, the impact can pitch a school system into a turmoil of litigation and labor disputes.²⁶⁶

Declining enrollment districts may be marked by lower morale such that there is ". . . a loss of joy. . . fewer chances for advancement, . . . fewer resources. . . fewer occasions of success."²⁶⁷ When declining enrollment translates into fewer dollars and fewer teachers, "Teachers block school closing because they can mean the cold reality of the loss of jobs. . ."²⁶⁸ Also ". . . unions. . . press school boards for smaller classes and increased number of remedial and special education programs."²⁶⁹

²⁶⁶Downey, "'Equalized' to Death," p. 35.

²⁶⁷Lewis B. Mayhew, Educational Leadership and Declining Enrollments (Berkeley: McCutchan Publishing, Corp., 1974), p. 135.

²⁶⁸Cheng, "Minority Parents and Collective Bargaining," p. 112.

²⁶⁹Ibid., p. 113.

As schools shrink in numbers, leadership and the staff age,²⁷⁰ there then is a need to restructure the functions and career paths of non-laid-off staff.²⁷¹ This restructuring or inservice causes anxiety as teachers are transferred to different buildings, different levels of instruction, different courses of study.

Public employee unions view community control ". . . as a threat to prevailing collective bargaining structure." Teacher unions seek ". . . to alter the balance of power in the educational power structure."²⁷² This altering of the power structure runs counter to the parental movement for community control of school governance.²⁷³

The process of collective bargaining demands militancy. It demands a separation of interest. It demands a "me" interest and a "they" interest. Hostility and opposition are necessary for union survival. Hostility and opposition in the form of public employee strikes are necessary for

²⁷⁰Eisenberger, "Closing a School:" p. 34.

²⁷¹"Get Ready for A Lot (A Lot) More POW in Teacher Power," American School Board Journal 161 (October 1974): 36.

²⁷²Mayer et. al., Shrinking Schools, p. 91.

²⁷³U.S. Department of Health, Education and Welfare, National Institute of Education, The Management of Decline: p. 313.

teacher position strength according to Hetenyi.²⁷⁴ In fact Perry equated a strike ". . .with revolution on a small scale."²⁷⁵ Steele charged ". . .I want someone to know that I'm alive and, unless they do, I'll keep on kicking."²⁷⁶ This kicking, this militancy needs self-renewal and institutionalization for unions to justify their existence and membership.²⁷⁷

Staff conflict and anxiety is thus affected by affirmative action clashing with reduction in force, lower morale as staff ages and becomes fewer in numbers, parents demanding a voice in school governance that unions have just obtained, loss of jobs and demands for more positions and jobs, aging staff and involuntary transfers, and militancy necessary for union survival.

The effect of staff conflict and anxiety on board of education membership stability is both direct and indirect. The literature refers to time pressures, personal harassment, public pressures, union tactics, union sponsored board

²⁷⁴Laszlo Hetenyi, "Unionism in Education: The Ethics of It," Educational Theory 28 (Spring 1978): 93.

²⁷⁵Ronald J. Perry, "Reflections on a School Strike, I: The Superintendents' View," Phi Delta Kappan 57 (May 1976): 592.

²⁷⁶Ellen Hogan Steele, "Reflections on a School Strike II: A Teachers' View," Phi Delta Kappan 57 (May 1976): 492.

²⁷⁷John W. Bruacher, "Why Teacher Militancy," Educational Leadership 27 (October 1969): 31.

recalls, divided boards, divided administration and board teams as direct effects. School governance, increased levels of influence, and increased militancy are referred to as indirect effects.

Time to negotiate, to set parameters, to hear grievances, or settle disputes pressure many board members. For example, in Wilmington, Delaware, the American School Board Journal pointed out that:

During this city's teacher strike, the school board averaged two to three meetings a day. Three weeks into the strike, School Board President Wendell Howell said he hadn't reached home before one o'clock in the morning any night during the previous month. Meanwhile, board members and their families were constantly harassed, and police put board members' houses under periodic surveillance.²⁷⁸

In New York "New York City Board of Education President Isaiah Robinson catnapped on a hotel room floor during around-the clock negotiations to end the city's teacher strike." In Chicago ". . . school board members spend long days and evenings at the board of education building, . . ."²⁷⁹

James Harris, president elect of the National Education Association stated that the Hortonville, Wisconsin, board ". . . lacks concern for education."²⁸⁰ A Long Island board

²⁷⁸"This Fall's Teacher Rampage and the Toll It's Taking of Board Members," American School Board Journal 162 (November 1975): 47.

²⁷⁹Ibid., p. 48.

²⁸⁰David L. Martin and Philip G. Jones. "How One Small-Town School Board Stood Up to One Big Statewide Teacher Union." American School Board Journal 161 (June 1974): 19.

member's home (Bond) was splattered with egg and debris while: ". . .90 striking teachers conducted a 'candlelight ceremony' that frightened Bond's family and neighbors." Being a board member ". . .meant being misquoted, harassed, chastised and booed. . . ."281

The public pressures the board during strikes. In Wilmington, "Their only concern is to get the schools open. They (parents) don't care if their school board gives away the kitchen sink and the outhouse--they just want the schools open."282

Union tactics pressure board members. In Half Hollow Hills "School board members and their families were threatened. Tires were slashed. Homes were vandalized."283 As a result of strikes Hentenyi noted that "Board members and a few administrators might find themselves out of jobs after the election--. . . ."284 Stoll, a member of the struck Berkeley board, listed these events. "My house has been picketed. . . I'm followed around everywhere I go at all hours, . . . ,

281 "This Fall's Teacher Rampage," p. 46.

282 Ibid., p. 47.

283 Ibid., p. 51.

284 Hetenyi, "Unionism in Education:" p. 92.

the union strike center would dial my number every five minutes 24 hours a day."²⁸⁵

Cresswell and Simpson analyzed the split in board governance collective bargaining may cause. They noted that the union can '. . .work with the administration and board separately to some degree--a three-way process."²⁸⁶ This process can split the administration and board, and the board itself, such that secondary pressures are developed. These splits may result in new consensus such that board members of the status quo consensus become vulnerable.²⁸⁷

Board members were attributed a significantly greater influence in school districts with strong teacher associations than in school districts with weak teacher associations. This finding contradicts the idea that board influence is reduced by the demand for more 'say' by teachers through a strong organization.²⁸⁸

They also noted that "Perhaps this represents an active and viable response on the part of the board of education to the

²⁸⁵"This Fall's Teacher Rampage," p. 51.

²⁸⁶Anthony M. Cresswell and Daniel Simpson, "Collective Bargaining and Conflicts: Impacts on School Governance," Educational Administration Quarterly 13 (Fall 1977): 65.

²⁸⁷Ibid., pp. 65-7.

²⁸⁸Donald J. Willower, "Relationships Between Teacher Union Strength and the Distribution of Influence Attributed to Hierarchical Levels in School Districts," Peabody Journal of Education 52 (January 1975): 154.

development of a strong teachers' unit within the district."²⁸⁹

Steele mentioned that "Communication between teachers and school board members is on an even frostier level. It is limited to the presenting of petitions and clashes over contracts and agreements."²⁹⁰ According to Cramer, boards are also becoming more militant. "The days are over when teachers can talk about strikes and expect the school boards to settle quickly."²⁹¹

The final indirect effect mentioned in the literature regarding board membership stability and staff conflict and anxiety is that of citizen participation. Haskins and Cheng recommended that, "We strongly support efforts aimed toward bringing about direct community involvement in teacher negotiations."²⁹² In Detroit the decentralization plan authorized by the state legislature was contingent on the right of the Detroit Federation of Teachers to negotiate an overall agreement covering all the decentralized school districts. This victory set aside gains won by parents for community control. The loss of authority and governance by

²⁸⁹Ibid., p. 152.

²⁹⁰Steele, "School Strike: A Teacher's View," p. 592.

²⁹¹Jerome Cramer, "When it Comes to Confronting Striking Teachers, School Boards are Getting Tougher than Ever," American School Board Journal 164 (January 1977): 25.

²⁹²Kenneth W. Haskins and Charles W. Cheng, "Community Participation and Teacher Bargaining: A Clash of Interests?" The Journal of Education 158 (August 1976): 63.

boards may discourage continued service by those board members who view their function as one of trusteeship rather than one of constituency representation.

School board response has been varied. In Michigan teachers were discharged in Reese and Crestwood. In many districts boards of education changed because of the pressures. Boards of education may have moved from a corporate trusteeship orientation to a political machine orientation. This movement may have increased the board's power and influence. Cramer reported that:

The word has gotten out to school boards: Get tough. They have. And teacher unions know it.

Robert Chanin, deputy executive secretary and general counsel for the National Education Association, concedes that 'school boards now realize that they can take a strike, that there are weapons to use to fight a strike, and that boards can effectively use these weapons. When teachers use the word strike, school boards no longer are panicked.²⁹³

This maturing of school boards may be the result of the retraining of current sitting board members. However it may be the result of change in board membership. This change may reflect community value change. Value change that demands a political machine orientation. Value change that rejects a trustee orientation. The truth of these statements are not found in the literature. Their truth is one of the questions of this study.

²⁹³Cramer, "Confronting Striking Teachers," p. 23.

In summary, staff conflict and anxiety is a societal issue of relatively short history. Beginning in the early 60's and continuing until today, it has been described as the primary pain of superintendents and board members. It is a function of union existence. It is necessary for union survival. It has toughened boards of education. It may have caused board membership change. It may have politicized boards of education. It may well change American education. It may be around for a long time.

Changes in Teacher Volunteering

An extensive review of the literature failed to find significant information regarding the eighth issue. The eighth issue is one of change; change in the rate of teacher volunteering for extra curricular activities between the 1972-73 school year and the 1978-79 school year, change that reflects a reluctance by teachers to take risks. Change that demonstrates that "Members of organizations probably will be reluctant to take risks often associated with experimentation if they perceive a threat to basic status security. . . ." ²⁹⁴ It may be a withdrawal of teachers, coaches, sponsors and directors from public exposure which

²⁹⁴ Ronald G. Corwin, "Innovation in Organizations: The Case of Schools," Sociology of Education 48 (Winter 1975): 4.

may threaten their basic jobs and incomes. Teachers may limit their exposure to the employer's range of items of dissatisfaction.²⁹⁵

In summary, while the issue is largely ignored in the literature, it is discussed often by practitioners. School districts may have hired more outside extracurricular coaches, sponsors and directors in 1978-79 than in 1972-73. This shift in employment source may cause dissatisfaction with the management of the school district. If dissatisfaction does develop it may lead to changes in board of education membership.

Variance Among School Boards in the Practice of Political Openness

The ninth variable deals with the differences among school boards in the practice of political openness. The differences were characterized by Iannaccone and Lutz as being politically open or politically closed.²⁹⁶ The use of koffee klatches, opinion surveys, public hearings, and citizen advisory committees are recommended as methods of

²⁹⁵ Interview with Daniel Kruger, Michigan State University, East Lansing, Michigan, 7 May 1979.

²⁹⁶ Iannaccone and Lutz, Politics, Power and Policy, pp. 85-8.

exercising political openness. In fact political openness may be dependent on the practice of these four techniques.²⁹⁷ Such political operations in a single party system (American board of education operation) generates it own 'loyal opposition' in that it creates ". . . independent critics friendly to the schools but not controlled by them." Such political exercises may open the system to the community.²⁹⁸ It may be used to either open or close the board of education's ear to the community.²⁹⁹

The history of this issue is presented in the earlier pages of this chapter. A brief review will be presented here. Prior to 1900 American boards of education were political in nature. Abuses of corruption and patronage led to control of American education by local professionals. This control existed until the mid-fifties. During the fifties two

²⁹⁷Eisenberger, "Closing a School:" p. 97, Elam, A Decade of Gallup Polls, p. 5, and Mayer et. al., Shrinking Schools, p. 30.

²⁹⁸Iannaccone and Lutz, Politics, Power and Policy, p. 26.

²⁹⁹U.S. Department of Health, Education and Welfare, National Institute of Education, The Management of Decline: p. 318. and Elliot Harvey Burns, "Actions Public School Boards May Take to Reduce Resistance to Change During Times of Declining Enrollment: (Ph.D. dissertation, Wayne State University, 1978), abstract.

opposing requirements were placed on schools: (1) that they become agents of social change and (2) that lay control be returned. Prior to the resolution of this conflict, the bureaucratic professionals lost control to federal, state, and regional agencies, associations, organizations, and unions.³⁰⁰

Whether governance of American Schools is by the bureaucratic professional (the superintendent) or by one or more national agencies, Boyd stated that the public does not determine ". . . educational policy." He charged that:

. . . this state of affairs is not only democratic but because it favors the status quo and the vested interests of educators, is also a leading reason for the failure of public education to adequately respond to the diverse and changing³⁰¹ needs of the many publics it is suppose to serve.

This lack of public determination of education governance and the thrust for lay-control has led some school districts to practice certain political techniques. These techniques are used to open the system, to provide a loyal opposition, to operate a quasi-two-party system. These techniques are koffee klatches, opinion surveys, advisory committees, and public hearings.

³⁰⁰ Zeigler et. al., "School Boards and Community Power:" pp. 90-1.

³⁰¹ Boyd, "Who Governs?" p. 556.

The extent and scope of the issue may be deepened and broadened by shrinkage and retrenchment in American education. Retrenchment and shrinkage in the form of financial crunches, declining test scores, declining enrollments, and declining public confidence. Berman and McLaughlin argue that the management of decline requires "participatory structures." They recommended a system that gives feedback, delegates authority, shares power, and insures participation.³⁰²

It may also be deepened and broadened by community value changes which may create differences with a status quo board of education. Such may open a closed system. However, failure to open the system may cause board of education members to be replaced.³⁰³

While the literature contains several specific instructions on how to practice political openness,³⁰⁴ it

³⁰²U.S. Department of Health, Education and Welfare, National Institute of Education, The Management of Decline: p. 327.

³⁰³Iannaccone and Lutz, Politics, Power and Policy, P. 21.

³⁰⁴Katherine E. Eisenberger, "How to Prepare the Public for the Closing of a Neighborhood School," American School Board Journal 162 (June 1975): 43-4, "Telephone Conference with Four City Superintendents," p. 24, Chester N. Nolte, "Follow These How To's When You Must Cut Your Staff," American School Board Journal 162 (July 1976): 27, Galen Hosler and Gilbert R. Weldy, "A Case Study, How One District is Closing a High School," NASSP Bulletin 61 (March 1977): 35-46, and Pickup, Management of Declining Public School Enrollment, pp. 27-8.

contains no descriptive or quantitative research on the effect of such practice. It is interesting to note that neither Iannaccone and Lutz,³⁰⁵ nor Kirkendall,³⁰⁶ nor LeDoux and Burlingame,³⁰⁷ nor Eblen,³⁰⁸ used political opennesses or closeness practices as intervening variables. This failure may have led to a contamination of their studies. The presence or absence of such practices may be the determining variable in board of education membership stability.

In summary, while Iannaccone and Lutz discussed and hypothesized that political openness and closeness affected board of education membership stability, the issue was ignored in validating research. Such failure to consider a potential-confounding variable may have contaminated these studies. Questions regarding the effectiveness of these techniques and interest in their intervention necessitate their study.

³⁰⁵Iannaccone and Lutz, Politics, Power and Policy, pp. 88-91.

³⁰⁶Ibid., p. 99.

³⁰⁷LeDoux and Berlingame, "A Replication in New Mexico," p. 50.

³⁰⁸Eblen, "Local School District Politics:" p. 2.

Nature and Effects of Change

Dependent on the rate, extent, history, and perceived need, change can be a renewal or the death of an organization. Sapone and Giuliano pointed out that:

Within the last two hundred years of this nation, our public schools have been called upon, and expected to respond to, the needs and expectations of a social order that has been marked by change so continuous, so rapid and so extensive as to retard and, in many ways, nullify the role of traditional education.³⁰⁹

Marsh felt that education has become a ". . .declining industry. We have apparently entered the third natural phase in the history of a social institution." The first phase is one of "dynamic growth", the second, one of "conflict," and the third, one of expectations decline, and ". . .indifference, passivity, and stagnation."³¹⁰ Jordan and Hanes concluded that "American civilization appears to be entering rapidly into what may be called an era of limits." This expectation decline combined with the era of limits signals change for American education.³¹¹ They pointed out that, "The price of neglect is simply too great. Educational

³⁰⁹Spane and Giuliano, "The Test Score Decline:" p. 44.

³¹⁰Mayhew, Educational Leadership and Declining Enrollments, p. 133.

³¹¹Jordan and Hanes, "Financing Education," p. 677.

decline can have a disastrous effect. . ."³¹² Mayhew mentioned that along with enrollment decline ". . .there has come a loss of public confidence in education."³¹³ Nyquist speculated that possibly,

. . .we may be in the first stage of a long twilight in education--an evening twilight, not a morning twilight--which, together with the now familiar diminished public confidence in education, will consist of markedly reduced financial support, fewer students, lessened quality, and curtailed educational opportunities. . .³¹⁴

Kaufman in describing the limits of organizational change set forth two conditions, (1) the environment changes slowly and organizations adapt, (2) the environment changes swiftly or unexpectedly and there is an anticipated slaughter of organizations.³¹⁵ He argued that numerous changes can result in "organizational death". Not necessarily the end of the organization; but, changes such that ". . .it makes no sense to consider the original system still in existence;"³¹⁶

³¹²Ibid., 68.

³¹³Mayhew, Educational Leadership and Declining Enrollments, p. 15.

³¹⁴Ewald B. Nyquist, "Disgruntledness, or, Education is No Longer a Money Splendored Thing," address given at the Mid-Winter Meeting of the New York State Council of School District Administrators, Albany, New York, 29 January 1976.

³¹⁵Herbert Kaufman, The Limits of Organizational Change (University, Alabama: University of Alabama Press, 1971), p. 96.

³¹⁶Ibid., p. 114.

The rate of required change, the inability to adapt, the rigidity, the flexibility and the environment are variables in organizational death.³¹⁷ Kaufman's arguments can be transferred from the general to the specific, from organizations as a concept to K-12 public schools in the concrete. Brody illustrated Kaufman's assumptions by observing:

When the 'for sale' sign appears on that familiar, beloved red brick building, it means to many people that the community is dying or is at least changing, and probably not for the better. It means that one era, of growth and expansion is fading, and another, of decline and contraction, is taking its place.³¹⁸

The literature contained references to decline as a significant change condition in K-12 public education. A partial list indicates that scope of the impact--decline of public confidence, declining achievement test scores, declining numbers of students, declining numbers of courses of study, and declining financial resources. Growth had become an American mind set. Decline, as Sargent indicated, ". . . may seem unpleasant, . . . may make you uncomfortable."³¹⁹ Berman and McLaughlin warned, ". . . that the process of contraction cannot be accomplished simply by

³¹⁷ Ibid., pp. 96-7

³¹⁸ Brody, "How to Close a School," p. 32.

³¹⁹ Sargent, "Declining Enrollments: the Numbers," p. 88.

reversing the process of expansion."³²⁰ Kaufman contended that, ". . .many organizations die even though presumably, they might alter themselves as conditions demand. . .they are imprisoned in the present and often cannot change, even when the future threatens them unless they do."³²¹ Moore quoted Hoffer, "When our mode of life is so precarious as to make it patent that we cannot control the circumstances of our existence, we tend to stick to the proven and familiar. We counteract a deep feeling of insecurity by making our existence a fixed routine."³²² Culbertson observed that, "In a growing institution mistakes are easily corrected; in a declining institution they are not."³²³ Wofford underscored the significance of decline in that ". . .in the past we measured the success of leadership in terms of what was added to the institution. . .administrators often

³²⁰U.S. Department of Health, Education and Welfare, National Institute of Education, The Management of Decline: p. 313.

³²¹Kaufman, Limits of Change, p. 40.

³²²Eric Hoffer, The True Believer (New York: Harper Row Pub., 1951), p. 17, cited in Samuel A. Moore, II, "Organizational Inertia and Resistance to Change," Educational Forum 41 (November 1976): 34.

³²³Jack Culbertson, "Educational Leadership: The Uses of Adversity," Theory Into Practice 15 (October 1976): 253.

interpret maintaining the status quo or reducing their school's size and budget as indications of personal failure."³²⁴

Marsh stated that "Education is a declining industry."³²⁵ ". . .decline produces a loss of joy. . . fewer chances for advancement. . .fewer resources. . .fewer occasions of success." However, he also maintained that decline can,

. . .provide a thread of optimism in the cloth of organizational discouragement. The opportunities are real. The decline of the 1930's was a period of considerable ferment in some American Educational institutions; the decline of the 1970's may be similar.³²⁶

Organizational Response to Change

Kaufman pointed out that, "Change does occur in organizations in spite of the barriers impeding it." Change sets in motion a process of ". . .incessant, possibly explosive, oscillation."³²⁷ Chruden and Sherman noted that, "One of the major sources of problems faced by organizations

³²⁴Joan W. Wofford, "Toughing it Out Through Inservice," National Elementary Principal 57 (March 1978): 53.

³²⁵Mayhew, Educational Leadership and Declining Enrollments, p. 133.

³²⁶Ibid., p. 136.

³²⁷Kaufman, Limits of Change, p. 41.

is the rate of change. . .in modern civilizations."³²⁸

Kaufman underscored the degree, "There are people who apparently believe that the only way to accomplish systemic change is by totally destroying an existing system and constructing a new one."³²⁹ Others feel that this action is too destructive and press for a more gradual approach.

The final result may well be the same. The demands may be such that schools cannot ". . .inflame our already critical constituencies,. . ."³³⁰ Garver pinpointed the problem facing American education when he remarked that:

I sense a very real deterioration in people's receptivity to change. In a district that is growing, people tend to be receptive to new ideas. Suddenly, when you begin to decline--it's extremely difficult to maintain the momentum, excitement, and enthusiasm that once permeated a growing system.³³¹

Eisenberger cautioned that, "The graying of America portends dramatic changes in our total way of life." She illustrated this change by citing examples of marketing

³²⁸Herbert J. Chruden and Arthur W. Sherman, Personnel Management (Cincinnati: South-Western Pub. Co., 1976), p. 330.

³²⁹Kaufman, Limits of Change, p. 93.

³³⁰Sargent, "Declining Enrollments: the Numbers," p. 91.

³³¹"Telephone Conference with Four City Superintendents," p. 21.

changes introduced by the Levi Strauss Company--"Levi's for Men" and the Gerber Company entering the field of life insurance.³³² Thomas explained the societal issue when he pointed out that:

The general decline in the fertility rate is a more serious problem than a decline in a single area like agriculture or mining. When there is a general decline in the total population, the waves of decline affect all society, therefore, the problems become more difficult to attack.

In an advancing society people are almost sucked out of a declining industry by the jobs created by the expanding ones. If there is little expansion in other parts of the society, then the transfer out of the declining industries may be difficult and adjustment to decline becomes a much more serious social problem.³³³

Educational organization's lack of response to change, to decline in particular, is illustrated by Davis and Lewis, "This state of mind (build, recruit, and grow) lasted well beyond the time when the demographic signs indicated that growth was slowing. . . .evidence of the senses to the contrary was too persuasive."³³⁴ This ". . .lingering mind set toward growth, . . ."³³⁵ impeded change such that

³³²Eisenberger, "How to Learn to Manage Decline," p. 36.

³³³Donald Thomas, "Strategies for Closing a School, Reducing Staff," NASSP Bulletin 61 (March 1977): 9.

³³⁴Davis and Lewis, "Coping with Declining Enrollments," p. 11.

³³⁵*Ibid.*, p. 2.

educational organizations may well have blocked any gradual change. It may have increased the likelihood of change by revolution not by evolution.

Freeman and Hannan in their research on differences in enrollment growth and decline found specific differences. They concluded that:

When demand is increasing, the size of the direct component (teachers) increases as does the supportive component (secretaries, custodians, etc.) But when demand declines, the loss in direct component is not matched by loss in the supportive component. That is, the supportive component tends to increase on the upswings but decreases less on the downswings.

If Freeman and Hannan's conclusions that a "turbulent environment" produces oscillations differences between growth and decline,³³⁶ and if Iannaccone and Lutz are correct, a greater board membership turnover should take place in declining districts than in stable districts.

The new era, this ". . . shrinkage of an enterprise that historically has known nothing but growth "³³⁷ may set the climate for an appropriate test of change--organizational, political and structural.

³³⁶Freeman and Hannan, "Growth and Decline," p. 227.

³³⁷Gores, "Options for Unused Space," p. 92.

Summary of Previous Research

Three earlier studies have explored the Iannaccone and Lutz hypothesis that:

. . . When the board becomes progressively segregated from the district, it decreases the linkage between itself and its changing macrosystem. Thus, it decreases the opportunity of processing the necessary inputs for self-correction (the modular effect). School board incumbents will consequently be defeated at election time.³³⁸

Each study used social and economic and political change indicators. However, the indicators were not necessarily the same for each study. For example:

1. Kirkendall studying board membership change in thirty-seven Southern California school districts, used the following indicators:

A. Social and Economic

"(1) assessed valuation, (2) average daily attendance and (3) geographic area in square miles."

B. Political

(1) number of votes cast for and against incumbents (2) number of candidates, (3) number of incumbents seeking reelection, (4) number of votes cast for and against a

³³⁸Iannaccone and Lutz, Politics, Power and Policy, pp. 86-7.

financial issue, and (5) number of years since the last financial issue election.³³⁹

2. LeDoux and Burlingame studying board membership change in sixty-six of the eighty-nine school districts in the state of New Mexico used the following indicators:

A. Socio-economic

- (1) Percent change in average daily membership
- (2) Percent change in assessed valuation
- (3) Change in assessed valuation per average daily membership.

B. Political

- (1) Ratio of votes against incumbent to total votes cast.
- (2) Ratio of candidates to positions.
- (3) Board election index where ". . .the number of incumbents was less than the number of positions open for election."³⁴⁰

3. Eblen studying board membership change and superintendent turnover among elementary school districts

³³⁹ Richard Stanley Kirkendall, "Discriminating Social, Economic and Political Characteristics of Changing Versus Stable Policy Making Systems in School Districts," (Ph.D. dissertation, Claremont Graduate School and University Center, 1966), abstract.

³⁴⁰ LeDoux and Burlingame, "A Replication in New Mexico," p. 52.

in suburban Cook County, Illinois, used the following indicators:

A. Socio-economic

- (1) Occupational level of a school district's population
- (2) Educational level of a school district's population
- (3) Income levels of a school district's population

B. Political

- (1) Conflict levels of school board elections.³⁴¹

While the above indicators may be community change value indicators their universality is subject to question. Elben noted that the model was ". . . developed on the basis of events observed only in districts which were rising in status." He suggested that change in social status without specifying direction of that shift limited the universality of the model. He specifically noted that decreases in social status were also indicators of community value change.³⁴² The indicators may also be criticized in that:

- 1. The sum of all these indicators may not be all the variables which comprise community values. If only these

³⁴¹Eblen, "Local School District Politics:" pp. 1-4.

³⁴²Ibid., p. 2.

indicators are used, a replicable confirmation of theory may not be found in that all the variables which affect community value changes may not have been studied. These studies may have been flawed by the exclusion of critical community education value indicators.

2. The studies used indirect rather than direct variable effects. For example, Eblen in the Illinois study used occupational, educational and income levels as socioeconomic change indicators. Kirkendall and LeDoux and Burlingame used average daily membership and assessed valuation as socioeconomic change indicators. While changes in average daily membership may be a direct variable, assessed valuation, occupational, educational and income level changes of parents and non-parents may be one ring of influence removed such that they are indirect variables. As such, intervening interactions may confound the research results.

3. The studies used indicators valued only by a portion of the school patrons--parents and non-parents. However school patrons also include students, teachers, school staff, and administrators.³⁴³ These studies failed to include the political interest Taebel defined as "constituency beneficiaries." Taebel noted that a constituent beneficiary was one that had a direct interest, a direct benefit. He hypothesized that constituent beneficiaries would have higher

³⁴³Interview with Herbert C. Rudman, Michigan State University, East Lansing, January 1979.

participation in school elections than non-constituent beneficiaries which he labeled clientele voters.³⁴⁴

Failure by these earlier studies to select appropriate indicators, provides the opportunity to select independent indicators (variables), such that (1) current community values are fully examined, (2) more confounding indicators or values are tested, and (3) all school patron values are represented.

While the earlier studies can be criticized for using inappropriate and too few indicators (variables) of community values, they did find that ". . . schools do respond to changes in the environment." To the extent that they do respond schools are not an ". . . autonomous decision-making system."³⁴⁵ They are political.

Kirkendall's study found that:

1. "A discrete discrimination was obtained. . . ." using the F-ratio at the .005 and .0005 level between districts experiencing and not experiencing incumbent board member defeat.
2. "Consistently, the strongest contribution to the discrimination was made by a socio-economic indicator; percentage change in assessed valuation. . . ."³⁴⁶

³⁴⁴Taebel, "Politics of School Board Election," p. 156.

³⁴⁵Iannaccone and Lutz, Politics, Power and Policy, p. 1.

³⁴⁶Kirkendall, "Changing Versus Stable Policy Making Systems," abstract.

LeDoux and Burlingame found:

1. "At no time. . . did the New Mexico data provide the prediction the California data provided."³⁴⁷
". . . the predictability was, on the average, 24% lower than Kirkendall's in California."³⁴⁸
2. "While the issue of decrease in social and economic indicators was an important part of the initial conceptualization of the New Mexico study, the skewing of the sample in this direction may have severely distorted the ability of indicators to discriminate among groups."
3. "Since many school districts are experiencing losses in some indicators the issue of political changes in this type of school district is unresolved."³⁴⁹

Eblen found:

1. That using a chi square analysis there was no significant relationship between rising socio economic districts and declining socio economic districts in board membership change due to electoral conflict or incumbent defeat.
2. ". . . there is a general trend for districts experiencing changes in status to select outside successor superintendents while stable districts selected inside successors."
3. That the study ". . . suggested a less conflictual and more adaptive response by schools to social change in the community."
4. That the selection of outside successor superintendents in change districts is an indicator of this less conflictual and more adaptive response.³⁵⁰

³⁴⁷ LeDoux and Burlingame, "A Replication in New Mexico," p. 53.

³⁴⁸ Ibid., p. 54.

³⁴⁹ Ibid., p. 62.

³⁵⁰ Eblen, "Location School District Politics:" p. 3.

Several criticisms can be directed at the statistical handling of these studies' data. The first is the most severe. It is directed at Kirkendall and LeDoux and Burlingame's selection of samples such that cell sizes are unequal. For example, Kirkendall studied 37 school districts where:

19 experienced no board member defeat.

18 experienced board members' defeat.

LeDoux and Burlingame studied 48 school districts in New Mexico where:

23 experienced no board member defeat.

35 experienced board member defeat.

Each of these studies failed to statistically balance these cells. This failure leads to Glass and Stanley's assessment of unequal cell size:

2. When the sample sizes and variances are unequal and fewer persons are sampled from the populations with larger variances, the probability of a type I error is greater than α . In other words, the effect of heterogeneous variances in this case is to shift the distribution of F-ratios to the right.
3. When the sample sizes and variances are unequal and great numbers of persons are sampled from the populations with variances the probability of a type I error is less than α . The effect of heterogeneous variances in this case is to shift the distribution of F-ratios to the left.³⁵¹

³⁵¹Gene Glass and Julian C. Stanley, Statistical Methods in Education and Psychology (Englewood Cliffs, New Jersey: Prentice-Hall, 1970), p. 372.

Failure by these researchers to use balanced cell designs may have led to a biased estimate of indicator effect. Also, it may have contaminated the independence of the results such that the findings are unreliable.

While Kirkendall used a statistical analysis to obtain statistical F-ratios, LeDoux and Burlingame used percentage correct in reporting results. Their method did not yield an unbiased estimator of indicator effects that contained precision and could be externally generalized. Such statistical gamesmanship makes it difficult to:

1. Accept the findings
2. Accept the external generalization in that they may not be valid.
3. Determine whether or not the findings are statistically meaningful.
4. Project the findings such that a replication for verification is statistically meaningful.

Eblen used chi square to test for significance. Although the direction of the results was supportive of the Iannaccone and Lutz theory, the hypothesis was not accepted in that significance was not found.³⁵²

However, Eblen failed to sample a population that represented school districts in either Illinois, surrounding states, the nation, or prior studies. This failure left the

³⁵²Eblen, "Local School District Politics:" p. 2.

study seriously flawed. In particular he sampled K-8 school districts in Cook County, Illinois. This interjected confounding variables that may have negated his findings. He concluded that:

Another factor that may have affected this research was the use of elementary districts (K-8). Because of their size, elementary districts in the Chicago suburban area are more socially homogeneous than high school districts (9-12). It was thus believed shifts in social status would be more observable in the elementary districts. Yet there may be fewer types of issues in elementary districts that result in deep cleavages among residents. In addition to periodic issues, high school districts tend to witness continuous competition for the education dollar among the interests advocating college pre-programs, expanded career education opportunities, and/or extensive extra-curricular programs. The deep cleavages over a district's policies and programs produced by these interests tend to result in heated competition for control of the school board. Thus the organizational structure of a district may be another controlling factor in the model's successful operation.⁵⁵³

Eblen's sampling practice may have been equivalent to a farmer planting peas to develop hybrid corn. The sample was simply inappropriate for the theory.

In summary, each of the prior studies that tested Iannaccone and Lutz's theory is flawed. Current studies should use methods, designs samples, analysis and statistical methods to correct such flaws.

³⁵³Ibid., p.4.

CHAPTER III

INSTRUMENTATION AND METHODOLOGY OF THE STUDY

Selection of School Districts for Study

Three hundred and seventy-eight K-12 public school districts in Michigan were the population of interest for this study. These three hundred and seventy-eight Michigan K-12 public schools were that fraction of the total K-12 public schools that (1) experienced stable to declining enrollment (1972 to 1979) and (2) did not consolidate or deconsolidate 1972 to 1979. Fourth-Friday audited K-12 public school membership enrollments were obtained from the Michigan Department of Education computer tapes for the school years 1972-73 and 1978-79. District-by-district 1978-79 K-12 enrollments were subtracted from the 1972-73 K-12 enrollments for the five hundred and four non-consolidated or deconsolidated districts. The resultant positive or negative numbers were then divided by the 1972-73 fourth Friday K-12 full-time-equivalent enrollment for each district.

The percentage changes were ranked from greatest-enrollment growth (+ % change) to greatest-enrollment decline

(- % change). Dividing the ranked districts by eight, formed eight equal sized enrollment change blocks.

Figure 1: Enrollment Change Blocks

I	II	III	IV	V	VI	VII	VIII
63	63	63	63	63	63	63	63
-					-/+		+

Block VI, contains sixty-three K-12 public school districts. Each of these districts experienced the smallest amount of enrollment change. For this study this block of districts acted as a dividing point. Districts in this enrollment-stable block and in blocks I, II, III, IV, and V were selected for study.

This study is concerned with selected change variables that may be related to board of education membership stability. It is important that K-12 public school districts experiencing the most change are studied. In the 1970's K-12 enrollment decline was one of the more dramatic changes Michigan K-12 public schools experienced. A quasi-control group was necessary to test variability. Therefore, for this study all superintendents of districts in block VI (quasi-control) and blocks I, II, III, IV and V (quasi-experimental) were surveyed. Data not obtained in the survey was obtained from the Michigan Department of Education computer tapes.

Block VI (control block) contains districts which have had a percentage-enrollment decline of -2.10 to a percentage-

enrollment increase of 2.18. Block V contains districts which had a percentage decline of -2.15 to -5.48. Block IV contains districts which had a percentage decline of -5.56 to -9.59. Block III contains districts that had a percentage decline of -9.61 to -13.97. Block II contains districts that had a percentage decline of -13.98 to -19.18. Block I contains districts that had a percentage decline of -19.20 to -43.85.

Determination of Variables and Variable Blocks

Rate of Board Member Change

Collected data was analyzed using two statistical methods--analysis of variance (ANOVA) and multiple regression. The dependent variable for each test is the total number of school board members who served on each board of education (1972-73 to 1978-79), minus members who resigned or retired from the board because of relocation or retirement from employment. Specifically, total number of board members 1972-73 to 1978-79 minus retirements and relocations equals rate of board member change 1972-79.

Algebraically the variable is written: $CC = X - (re + rl)$
where:

CC - Board member change

X = Total number of board members 1972-73 to 1978-79.

rt = Board members who resigned or retired from the board of education at the time of retiring from work.

rl = Board members who resigned from the board of education at the time of relocating to another school district.

Declining Pupil Enrollment

Five hundred and four Michigan public K-12 school districts were ranked by percentage-enrollment change from greatest-enrollment increase to greatest-enrollment decline. Sampled districts included those districts which had the smallest-enrollment change (positive or negative) to those districts which had the greatest-enrollment decline. Two hundred and twelve superintendents returned useable surveys. These two hundred and twelve returns were divided into four enrollment change blocks - R_1 (greatest decline) to R_4 (least-enrollment change).

The test design matrix is:

Figure 2: ANOVA Matrix "declining pupil enrollment"

R_1	R_2	R_3	R_4
CC	CC	CC	CC

Definitions: R = Rate (percentage) of enrollment change

CC = Board member change

The district-by-district independent variable for the multiple-regression test is the percent-enrollment change 1972-73 to 1978-79 for sampled districts. Algebraically it is stated:

$$R = \frac{(1972-73 \text{ K-12 enrollment}) - (1978-79 \text{ K-12 enrollment})}{1972-73 \text{ K-12 enrollment}}$$

Changes in the Number of Courses of Study

Surveyed superintendents were given a list of elementary, junior high/middle school or high school courses of study. Each was asked to indicate in a five-block range (decreased a great deal to increased a great deal) the latest change status for 16 elementary courses of study, 8 junior high/middle school courses of study and 8 high school courses of study. It was hypothesized that K-12 changes in the number of courses of study would be related to board of education membership stability. Consequently, all three organizational levels were grouped together in the first analysis. However, careful checking of change differences among the three K-12 levels led to a separation of this data into, (1) changes in the number of elementary courses of study, (2) changes in the number of junior high/middle school courses of study and (3) changes in the number of high school courses of study. This separation was done to improve the precision of the study. The hypothesis also will be subdivided later in this chapter.

The determination of the three independent variables was made by (1) assigning the number 5 to the "decreased a great deal" block, 4 to the "decreased" block, 3 to the "remained the same" block, 2 to the "increased" block, and 1 to the "increased a great deal" block; (2) summing all blocks and (3) dividing the sum by the number of blocks checked at each organizational level.

The sampled districts were then ranked by greatest-negative change to greatest-positive change for each of the three variables. The ranking was then divided into four blocks for each variable - SE_1 (greatest-negative elementary change) to SE_4 (greatest-positive elementary change), SJ_1 (greatest-negative junior high/middle school change) to SJ_4 (greatest-positive junior high/middle school change) and SH_1 (greatest-negative high school change) to SH_4 (greatest-positive high school change). The blocking formed the independent ANOVA variables; (1) change in the number of elementary courses of the study, (2) change in the number of junior high/middle school courses of study and (3) change in the number of high school courses of study.

The test design matrices are:

Figure 3: ANOVA Matrix "change in number of elementary courses of study"

SE_1	SE_2	SE_3	SE_4
CC	CC	CC	CC

Definitions: SE = of indicated values of changes in number of elementary courses of study.

CC = Board member change

Figure 4: ANOVA Matrix "change in number of junior high/middle school courses of study"

SJ_1	SJ_2	SJ_3	SJ_4
CC	CC	CC	CC

Definitions: SJ = of indicated values of changes in number of junior high/middle school courses of study.

CC = Board member change

Figure 5: ANOVA Matrix "change in number of high school courses of study"

SH_1	SH_2	SH_3	SH_4
CC	CC	CC	CC

Definitions: SH = of indicated values of changes in number of high school courses of study.

CC = Board member change

The district-by-district independent variables for the multiple-regression tests are the means of all check block values. Algebraically they are depicted:

$$SE = \frac{\text{Total block values}}{\text{Number of blocks}} \quad SJ = \frac{\text{Total block values}}{\text{Number of blocks}}$$

$$SH = \frac{\text{Total block values}}{\text{Number of blocks}}$$

Changes in Seventh Grade Michigan Assessment Test Scores

This study was designed to test the relationships among nine selected variables and board of education stability during a seven-year period -- 1972-73 to 1978-79. Change in seventh grade Michigan Assessment test scores was one of the selected variables. However, because the 1972-73 and 1973-74 assessment data were not available in machine-readable form and were substantially different than the 1978-79 data; 1974-75 and 1978-79 assessment data were used (see Mr. Nichol's letter in the appendix). This compromise in the study was done following three meetings with Michigan Department of Education officials. While a five-year span is less desirable than a seven-year span, inferences regarding the seven-year-span data would have been less valid than inferences made using the five-year-span data; therefore, the five-year-span data was used.

District-by-district percentages of seventh-grade students, who achieved at least 75% of the math and reading test objectives in 1974-75, were obtained from the Michigan Department of Education computer tapes. A 1974-75 seventh grade Michigan Assessment test score for each district was obtained by summing these math and reading percentages and dividing by two. The formula was repeated using 1978-79 data. The 1978-79 results minus the 1974-75 results equaled the change in seventh grade Michigan Assessment test score for each district. Algebraically it is symbolized:

$$A = \frac{(78-79 \text{ R } \% + 75\% \text{ achievement} + 78-79 \text{ M } \% + 75\% \text{ achievement})}{2} - \frac{(74-75 \text{ R } \% + 75\% \text{ achievement} + 74-75 \text{ M } \% + 75\% \text{ achievement})}{2}$$

The sampled districts were then ranked by greatest-positive change in seventh-grade achievement to greatest-negative change. This ranking was then divided into four blocks, A_1 (greatest-positive change) to A_4 (greatest-negative change). The blocking formed the independent variable change in seventh grade Michigan Assessment test scores.

The design matrix is as follows:

Figure 6: ANOVA Matrix "change in seventh grade Michigan Assessment test scores"

A ₁	A ₂	A ₃	A ₄
CC	CC	CC	CC

Definitions: A = Changes in seventh grade Michigan Assessment test scores.

CC = Board member change

The district-by-district independent variable for the multiple regression test is:

$$A = \frac{(78-79 \text{ R } \% + 75\% \text{ achievement} + 78-79 \text{ M } \% + 75\% \text{ achievement})}{2} - \frac{(74-75 \text{ R } \% + 75\% \text{ achievement} + 74-75 \text{ M } \% + 75\% \text{ achievement})}{2}$$

Changes in Operational Millage Rates

District-by-district total operational millage rates for the years 1972-73 and 1978-79 were obtained from Michigan Department of Education computer tapes. Each District's operational millage rate was computed by subtracting the 1972-73 rate from the 1978-79 rate and dividing by the 72-73 rate. Algebraically it is denoted:

$$F = \frac{(78-79 \text{ operational mill. rate}) - (72-73 \text{ operational mill. rate})}{72-73 \text{ operational millage rate}}$$

The sampled districts were ranked by greatest-positive to greatest-negative change. The ranking was divided into four

blocks, F_1 (greatest-positive change) to F_4 (greatest-negative change). The blocking formed the independent variable changes in operational millage rates.

The design matrix is as follows:

Figure 7: ANOVA Matrix "test of change in operational millage rate"

F_1	F_2	F_3	F_4
CC	CC	CC	CC

Definitions: F = Change in operation millage rate 72-73 to 78-79.

cc = Board member change

The district-by-district independent variable for the multiple-regression test algebraically is expressed:

$$F = \frac{(78-79 \text{ operational millage rate}) - (72-73 \text{ operational millage rate})}{72-73 \text{ operational millage rate}}$$

Changes in Percentage of Minority Students

District-by-district percentage of minority students for the years 1972-73 and 1978-79 was obtained from the Michigan Department of Education computer tapes. Each district's change rate was computed by subtracting the 1972-73 percentage from the 1978-79 percentage. Algebraically it is stated:

$$I = (1978-79 \text{ minority percentage}) - (1972-73 \text{ minority percentage})$$

The sampled districts were ranked by greatest-positive minority-student-percentage change to greatest-negative minority-student change. The ranking was divided into four blocks: I_1 (greatest-positive change) to I_4 (greatest-negative change). This blocking formed the independent variable -- change in percentage of minority students.

The design matrix is as follows:

Figure 8: ANOVA Matrix "change in percentage of minority students:

I_1	I_2	I_3	I_4
CC	CC	CC	CC

Definitions: I = Change in percentage of minority students 72-73 to 78-79.

CC = Board member change.

The district-by-district independent variable for the multiple-regression test is:

$$I = (78-79 \text{ minority percentage}) - (71-72 \text{ minority percentage})$$

Changes in School Mission

District-by-district enrollments in two school functions were obtained from surveyed superintendents. The specific functions were pre-K and adult-education enrollments. Each district's change rate was computed by subtracting the

1972-73 total pre-K and adult-education full-time-equivalency enrollment (f.t.e.) from the 1978-79 pre-K and adult-education f.t.e. enrollment which had been multiplied by 1.5. This was divided by the 1972 K-12 f.t.e. enrollment. The 1978-79 f.t.e. adult enrollments were adjusted by 1.5 to compensate for a Michigan Department of Education accounting change that increase the 72-73 f.t.e. student hours of 320 to a 78-79 f.t.e. student hours of 480. Algebraically it is written:

$$Y = \frac{(1978-79 \text{ pre-K enrollment} + 1978-79 \text{ f.t.e. adult enrollment} \times 1.50) - 1972-73 \text{ K-12 f.t.e. enrollment}}{(1972-73 \text{ pre-K enrollment} + 1972-73 \text{ f.t.e. adult enrollment}) - 1972-73 \text{ K-12 f.t.e. enrollment}}$$

The sampled districts were then ranked by greatest-school-mission-percentage change to least-school-mission-percentage change. The ranking was divided into four blocks, Y_1 (greatest change) to Y_4 (least change). This blocking formed the independent variable -- change in school mission.

The design matrix is:

Figure 9: ANOVA Matrix "change in school mission"

Y_1	Y_2	Y_3	Y_4
CC	CC	CC	CC

Definitions: Y = Change in school mission 1972-73 to 1978-79.

CC = Board member change

The district-by-district independent variable for the multiple-regression test is:

$$Y = (78-79 \text{ pre-K}) + (78-79 \text{ adult} \times 1.5) - \frac{(72-73 \text{ pre-K} + 72-73 \text{ adult})}{72-73 \text{ K-12 enrollment}}$$

Rate of Staff Conflict and Anxiety

District-by-district total employed full-time-equivalent professional and support staff counts were obtained from Michigan Department of Education computer tapes for 1972-73 and 1978-79. The 1972-73 and 1978-79 f.t.e. employee counts were combined and divided by two for each district. District-by-district staff conflict and anxiety indicators were obtained from the superintendents' survey. The staff conflict and anxiety rate was computed by dividing the number of employee grievances by the averaged f.t.e. employees and adding the additional five indicators. The additional indicators are written charges of unfair labor practices, work actions, agency investigations or hearings, mediations and fact-findings. Algebraically the independent variable is stated:

$$X = \frac{1972-73 \text{ to } 1978-79 \text{ employee grievances} + (1972-73 \text{ employees}) + (1978-79 \text{ employees})}{2} + \frac{1972-73 \text{ to } 1978-79 \text{ staff conflict and anxiety indicators}}{2}$$

The sampled districts were then ranked by greatest-staff conflict and anxiety indicators to least-staff conflict and anxiety indicators. The ranking was divided into four blocks, X_1 (largest indicators) to X_4 (smallest indicators). This blocking formed the independent variable--rate of staff conflict and anxiety.

The design matrix is:

Figure 10: ANOVA Matrix "rate of staff conflict and anxiety"

X_1	X_2	X_3	X_4
CC	CC	CC	CC

Definitions: X = Rate of staff conflict and anxiety.

CC = Board member change

This district-by-district independent variable for the multiple-regression test is:

$$X = \frac{1972-73 \text{ to } 1978-79 \text{ employee grievances} + 1972-73 \text{ to } 1978-79 \text{ staff conflict and anxiety indicators}}{(1972-73 \text{ employees}) + (1978-79 \text{ employees})/2}$$

Rate of Teacher Volunteering

District-by-district responses were obtained from surveyed superintendents for the school years 1972-73 and 1978-79 regarding:

- (1) Number of available extra-curricular positions
- (2) Number of positions staffed with outside employees
- (3) Number of positions not staffed.

The rate of teacher volunteering was computed for each district by (1) adding the number of 1972-73 outside staffed and unstaffed positions together and dividing by the number of available positions, (2) adding the number of 1978-79 outside staffed and unstaffed positions together and dividing by the number of available positions and (3) subtracting two above from one above. Algebraically the independent variable is written:

$$V = \frac{72-73 \text{ (outside + unstaffed positions)}}{\text{available positions}} - \frac{78-79 \text{ (outside + unstaffed positions)}}{\text{available positions}}$$

The sampled districts were then ranked by greatest-positive change to greatest-negative change. The ranking was divided into four blocks, V_1 (greatest-positive change) to V_4 (greatest-negative change). The blocking formed the independent variable -- rate of teacher volunteering.

The design matrix is:

Figure 11: ANOVA Matrix "change in teacher volunteering"

V_1	V_2	V_3	V_4
CC	CC	CC	CC

Definitions: V = Rate of teacher volunteering change 1972-73 to 1978-79.

CC = Board member change

The district-by-district independent variable for the multiple-regression test is:

$$V = \frac{72-73 \text{ (outside + unstaffed)}}{\text{available positions}} - \frac{78-79 \text{ (outside + unstaffed)}}{\text{available positions}}$$

Variance Among School Boards in the Practice of Political Openness

District-by-district numbers of koffee klatches, opinion surveys, citizen-advisory committees and public hearings were obtained from surveyed superintendents. The rate of political openness was computed for each district by summing all indicators. Algebraically the independent variable is denoted:

$$P = \text{koffee klatches} + \text{opinion survey} + \text{public hearings} + \text{advisory committees}$$

The sampled districts were then ranked by greatest rate of political openness to least rate of political openness. This ranking was then divided into four blocks, P_1 (greatest openness) to P_4 (least openness). The blocking formed the independent variable -- practice of political openness.

The design matrix is:

Figure 12: ANOVA Matrix "practice of political openness"

P_1	P_2	P_3	P_4
CC	CC	CC	CC

Definitions: P = Rate of the practice of political openness

CC = Board member change

Algebraically the district-by-district independent variable for the multiple-regression test is:

$P = \text{Coffee klatches} + \text{opinion surveys} + \text{public hearings} + \text{advisory committees}$

Design and Methodology

Sampling Design

K-12 Michigan public school superintendents of enrollment-stable to enrollment-declining districts were mailed a questionnaire. The study was of K-12 Michigan public schools with stable to declining enrollments.

A closed-ended response survey instrument was constructed to gather appropriate data. The survey was mailed to 378 selected superintendents. A substantial return rate was important. Those superintendents who failed to return the instrument were contacted by a second mailed request. Fifty-six-point-one percent of the sampled superintendents returned useable surveys. The study was continued with a 95% confidence factor and a +/- 5% sampling-error factor.

Treatment of Data

Data for the variables were taken directly from the Michigan Department of Education files and combined with data obtained from the survey forms for each sampled district.

The combined data was then transferred to Michigan State University computer tapes and subsequently merged on a control tape.

All of the data gathered for each school district were stored on nine-track-computer tapes prior to analysis by the computer at Michigan State University.

A computer program "Statistical Package for the Social Sciences" version 8.0 One-Way was used to test for significant differences in each of the ranged blocks of variables.

A computer program, "Stepwise Regression," 3 April 1974, was used to test for multiple regression among the variables.

Scheffe' Post Hoc comparisons would have been made if a significant F had been found in the analysis of variance tests. It would have been used to determine which of the ranked block differences contributed to the significant F in the tests.

Statistical Methodology

Two statistical methods were chosen for this study. A one-way analysis of variance (ANOVA) with fixed effects was selected to produce appropriate F scores. The F distribution was used to test for significant differences of board of education membership stability among groups of blocked districts. It also was used to determine whether or not

significant discrete board membership stability differences existed among school districts experiencing varying degrees of societal change. The multiple-regression test was chosen to (1) determine the relationship among the variables and board of education membership stability and (2) determine, with an F distribution, whether or not the multiple regressions equaled zero.

Hypothesis Testing

From the scores derived for each of the variables, a one-way analysis of variance with fixed-effects method was used to test for variance among the ranged blocks. Each of the hypotheses tested is expressed in a word followed by the symbolic statement. The greatest change rate in each of the variables was assigned to block 1, the next greatest to block 2, the next greatest to block 3 and the least to block 4. Statistical significance was set a priori at the .05 level.

The general ANOVA hypothesis is stated first, followed by the eleven operational hypotheses. The independent variable "change in the number of courses of study" has been divided into three separate independent variables to improve the precision of the study. These three are, (1) "change in the number of elementary courses of study," (2) "change in the number of junior high/middle school

courses of study" and (3) "change in the number of high school courses of study". This division increased the number of necessary null hypotheses from nine to eleven. Each of the hypotheses tested is expressed in a word followed by the symbolic statement. The hypotheses are as follows:

No significant differences ($\alpha = .05$) will be found among the least (1) to greatest (4) change or rate blocks of districts grouped according to each of the variables studied and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts using a one-way analysis of variance with fixed effects.

$$H_0: B_1 = \dots = B_{43} \text{ "sum of all variables studied"}$$

H1a: No significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) enrollment change blocks and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

$$H_0: R_1 = R_2 = R_3 = R_4 \text{ "declining pupil enrollment"}$$

H1b(1) No significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) number of elementary courses of study change blocks and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

$$H_0: SE_1 = SE_2 = SE_3 = SE_4 \text{ "elementary number of courses of study"}$$

H1b(2): No significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) number of junior high/middle school courses of study change blocks and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

$$H_0: SJ_1 = SJ_2 = SJ_3 = SJ_4 \text{ "junior high/middle school number of courses of study"}$$

Hlb(3): No significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) number of high school courses of study change blocks and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

$$H_0: SH_1 = SH_2 = SH_3 = SH_4 \quad \text{"high school courses of study change"}$$

Hlc: No significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) seventh grade Michigan Assessment test score change blocks and board of education membership stability (1974-75 to 1978-79) in selected Michigan K-12 public school districts.

$$H_0: A_1 = A_2 = A_3 = A_4 \quad \text{"seventh grade Michigan Assessment test scores"}$$

Hld: No significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) operational millage rate change blocks and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

$$H_0: F_1 = F_2 = F_3 = F_4 \quad \text{"operational millage rate"}$$

Hle: No significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) percentage of minority student change blocks and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

$$H_0: I_1 = I_2 = I_3 = I_4 \quad \text{"percentage of minority students"}$$

Hlf: No significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) school mission change blocks and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

$$H_0: Y_1 = Y_2 = Y_3 = Y_4 \quad \text{"school mission"}$$

Hlg: No significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) teacher volunteering change blocks and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

$$H_o: V_1 = V_2 = V_3 = V_4 \text{ "teacher volunteering"}$$

Hlh: No significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) staff conflict and anxiety rate blocks and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

$$H_o: X_1 = X_2 = X_3 = X_4 \text{ "staff conflict and anxiety"}$$

Hli: No significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) practice of political openness rate blocks and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

$$H_o: P_1 = P_2 = P_3 = P_4 \text{ "practice of political openness"}$$

A stepwise multiple regression test was used to determine the relationship among the variables studied and board of education membership stability.

The independent variable "change in the number of courses of study" has been divided into three variables to improve the precision of the study. It was divided for reasons previously stated. This division increased the number of null-multiple-regression hypotheses from nine to eleven.

The general multiple-regression null hypothesis is first stated followed by the operational null hypotheses. Each of the hypotheses is first written and then followed

by their symbolic statement. The hypotheses are as follows:

No significant multiple regression ($\alpha = .05$) will be found among the variables studied and board of education membership stability in selected Michigan K-12 public school districts using a stepwise multiple regression test.

$$H_0: B_1 + B_2R + B_3SE + B_4SJ + B_5SH + B_6A + B_7F + B_8V + B_9Y + B_{10}V + B_{11}X + B_{12}P = 0$$

H2a: No significant regression ($\alpha = .05$) will be found between declining pupil enrollment (1972-73 to 1978-79) and board of education membership stability in selected Michigan K-12 public school districts.

$$H_0: B_1 + B_2R = 0 \text{ "declining pupil enrollment"}$$

H2b(1): No significant regression ($\alpha = .05$) will be found between changes in the number of elementary courses of study (1972-73 to 1978-79) and board of education membership stability in selected Michigan K-12 public school districts.

$$H_0: B_1 + B_3SE = 0 \text{ "elementary number of courses of study"}$$

H2b(2): No significant regression ($\alpha = .05$) will be found between changes in the number of junior high/middle school courses of study (1972-73 to 1978-79) and board of education membership stability in selected Michigan K-12 public school districts.

$$H_0: B_1 + B_4SJ = 0 \text{ "junior high/middle school number of courses of study"}$$

H2b(3): No significant regression ($\alpha = .05$) will be found between changes in the number of high school courses of study (1972-73 to 1978-79) and board of education membership stability in selected Michigan K-12 public school districts.

$$H_0: B_1 + B_5SH = 0 \text{ "high school number of courses of study"}$$

H2c: No significant regression ($\alpha = .05$) will be found between changes in seventh grade Michigan Assessment test scores (1974-75 to 1978-79) and board of education membership stability in selected Michigan K-12 public school districts.

$$H_0: B_1 + B_6A = 0 \text{ "seventh grade Michigan Assessment test scores"}$$

H2d: No significant regression ($\alpha = .05$) will be found between changes in operational millage rates (1972-73 to 1978-79) and board of education membership stability in selected Michigan K-12 public school districts.

$$H_0: B_1 + B_7F = 0 \text{ "operational millage rate"}$$

H2e: No significant regression ($\alpha = .05$) will be found between changes in the percentage of minority students (1972-73 to 1978-79) and board of education membership stability in selected Michigan K-12 public school districts.

$$H_0: B_1 + B_8I = 0 \text{ "percentage of minority students"}$$

H2f: No significant regression ($\alpha = .05$) will be found between changes in school mission (1972-73 to 1978-79) and board of education membership stability in selected Michigan K-12 public school districts.

$$H_0: B_1 + B_9Y = 0 \text{ "school mission"}$$

H2g: No significant regression ($\alpha = .05$) will be found between changes in teacher volunteering (1972-73 to 1978-79) and board of education membership stability in selected Michigan K-12 public school districts.

$$H_0: B_1 + B_{10}V = 0 \text{ "teacher volunteering"}$$

H2h: No significant regression ($\alpha = .05$) will be found between staff conflict and anxiety (1972-73 to 1978-79) and board of education membership stability in selected Michigan K-12 public school districts.

$$H_0: B_1 + B_{11}X = 0 \text{ "staff conflict and anxiety"}$$

H2i: No significant regression ($\alpha = .05$) will be found between the practice of political openness and board of education membership stability in selected Michigan K-12 public school districts.

$$H_0: B_1 + B_{12}P = 0 \text{ "practice of political openness"}$$

CHAPTER IV

ANALYSIS OF THE DATA

The analysis of data is presented in this chapter. The hypotheses were tested through the use of two statistical models; (1) analysis of variance among school districts grouped into discrete blocks of varying degrees of change or differences and the F test of this analysis of variance and (2) multiple regression and the F test that the computed regression equaled zero.

The chapter has been divided into three sections. In the first section the one-way analysis of variance (ANOVA) among school districts grouped in discrete blocks is presented. The F distribution is used to determine significance in this section. Null hypotheses being tested are stated in written and symbolic form. The .05 level of significance is used to determine acceptance or rejection of the hypothesis tested. If the probability of the data is less than .05, the decision is to reject the null hypothesis. Rejection of the null hypothesis determines acceptance of the research hypothesis.

In the second section the tests of the multiple regressions and the F test that those regressions equaled zero are reviewed. Null hypotheses tested are expressed in written and symbolic form. The .05 level of probability that no multiple or bivariate relationships exist among the variables studied is used to determine acceptance or rejection of the hypotheses tested. Correlation coefficients, multiple regressions, the F test that the regression equals zero, and F probability are reported. If the probability that the multiple or bivariate regression equals zero, is less than .05, the null hypothesis is rejected. A decision to reject the null hypothesis means acceptance of the research hypothesis.

In the third section three selected variables are tested. Separate and combined bivariate and multiple regression F test of this data are reviewed. Null hypotheses tested are stated in written and symbolic form. The level of probability and decision rules set forth in the second section are applied in this section.

Analaysis of Variance (ANOVA) Among Studied Variables

The general ANOVA null hypothesis and eleven operational ANOVA null hypotheses are as follows:

No significant differences ($\alpha = .05$) will be found among the least (1) to greatest (4) change or rate blocks of districts grouped according to each of the variables studied and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts using a one-way analysis of variance with fixed effects.

$$H_0: B_1 = \dots = B_{34} \quad \text{"sum of all variables studied"}$$

H1a: No significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) enrollment change blocks and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

$$H_0: R_1 = R_2 = R_3 = R_4 \quad \text{"declining pupil enrollment"}$$

H1b(1): No significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) number of elementary courses of study change blocks and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

$$H_0: SE_1 = SE_2 = SE_3 = SE_4 \quad \text{"elementary number of courses of study"}$$

H1b(2): No significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) number of junior high/middle school courses of study change blocks and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

$$H_0: SJ_1 = SJ_2 = SJ_3 = SJ_4 \quad \text{"junior high/middle school number of courses of study"}$$

H1b(3): No significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) number of high school courses of study change blocks and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

$$H_0: SH_1 = SH_2 = SH_3 = SH_4 \quad \text{"high school courses of study change"}$$

Hlc: No significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) seventh grade Michigan Assessment test score change blocks and board of education membership stability (1974-75 to 1978-79) in selected Michigan K-12 public school districts.

$$H_o: A_1 = A_2 = A_3 = A_4 \text{ "seventh grade Michigan Assessment test scores"}$$

Hld: No significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) operational millage rate change blocks and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

$$H_o: F_1 = F_2 = F_3 = F_4 \text{ "operational millage rate"}$$

Hle: No significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) percentage of minority student change blocks and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

$$H_o: I_1 = I_2 = I_3 = I_4 \text{ "percentage of minority students"}$$

Hlf: No significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) school mission change blocks and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

$$H_o: Y_1 = Y_2 = Y_3 = Y_4 \text{ "school mission"}$$

Hlg: No significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) teacher volunteering change blocks and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

$$H_o: V_1 = V_2 = V_3 = V_4 \text{ "teacher volunteering"}$$

Hlh: No significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) staff conflict and anxiety rate blocks and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

$$H_o: X_1 = X_2 = X_3 = X_4 \text{ "staff conflict and anxiety"}$$

H_{1i}: No significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) practice of political openness rate blocks and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

H₀: $P_1 = P_2 = P_3 = P_4$ "practice of political openness"

Summary of Hypothesis I Results

Data for each of the variables studied are ranked from greatest-positive change to either least-positive or greatest-negative change. The data were then divided into discrete groups. This division formed blocks of sampled districts for each variable studied. The dependent variable within these discriminate blocks was the rate of board member change for each district. An analysis of variance model was used to test significant differences of board member change among the blocks. This test was applied to each of the variables studied. The ANOVA F tests found no significant differences of board member change among any of the forty-three (43) discriminate groups (blocks) of school districts.

Statistical Tests and Treatments - ANOVA

Data from each variable studied were grouped into discriminate blocks of varying degrees of change or rate differences. The F distribution was used to test significance

differences of board membership stability among the blocks. A one-way-fixed analysis of variance design produced appropriate F scores. Rejection of the null hypotheses was dependent on large F scores with an F probability less than .05. The null hypothesis is accepted when there are small F scores and the F probability is greater than .05. The research hypothesis is accepted when the null hypothesis is rejected.

The results of the ANOVA F tests for each variable studied are presented in table form. Included in the tables are ranges of variation, variable means and block frequencies.

No significant board membership stability differences were found among the forty-three (43) discriminate blocks (groups) of school districts. Scheffe' Post Hoc analysis was not performed because of this lack of significance.

Table 1: Analysis of Variance for the Independent Variable Declining Pupil Enrollment

Source	d.f.	Mean Square	F Ratio	F Probability
Between Groups	3	17.7555	1.4352	.2336
Within Groups	208	12.3715		

Table 2: Ranges, Means, and Block Frequency for Declining Pupil Enrollment

Block	Independent Variable Range	Dependent Variable Range	Dependent Mean	Block Frequency
R ₁	-15.68% to -43.51%	8 - 24	12.04	53
R ₂	- 8.92% to -15.69%	9 - 27	12.94	52
R ₃	- 3.78% to - 8.90%	8 - 24	12.87	53
R ₄	+ 2.18% to - 3.69%	7 - 26	13.43	54

The results of board membership stability differences (1972-73 to 1978-79) among school districts discriminately grouped into pupil enrollment change blocks are reported in Tables 1 and 2.

The districts were grouped into four enrollment change blocks -- R4 +2.18% to -3.69% change, R3 =3.78% to -8.90% change, R2 -8.92% to -15.67% change and R1 -15.68% to -43.51% change. Studied K-12 school districts experienced enrollment changes of +2.18% to -43.51% between 1972-73 and 1978-79.

The mean number of grouped district board member changes ranged from 5.04 (R1 greatest-enrollment decline) to 6.32 (R4 stable enrollment). Greater average board member change occurred in the enrollment stable districts than in the districts experiencing the greatest-enrollment decline.

A small F (1.4352) and large F probability (.2336) in the test of analysis of variance were found. An F probability of .2336 is greater than the established significance level of .05; therefore, the decision rule is to accept the null hypothesis and reject the research hypothesis. The accepted hypothesis is:

H_{1a}: No significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) enrollment change blocks and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

H₀: $R_1 = R_2 = R_3 = R_4$ "declining pupil enrollment"

This indicates that there were no significant board membership stability differences among school districts grouped in blocks of discriminate enrollment changes.

Table 3: Analysis of Variance for the Independent Variable Elementary Courses of Study

Source	d.f.	Mean Square	F Ratio	F Probability
Between Groups	3	5.7376	.4574	.7124
Within Groups	208	12.5449		

Table 4: Ranges, Means and Block Frequency for Elementary Courses of Study

Block	Independent Variable Range	Dependent Variable Range	Dependent Means	Block Frequency
SE ₁	2.92 - 5.00	8 - 24	12.83	54
SE ₂	2.75 - 2.88	7 - 25	13.22	60
SE ₃	2.56 - 2.73	8 - 26	12.43	47
SE ₄	1.00 - 2.53	8 - 27	12.73	51

The results of board membership stability differences between the years 1972-73 and 1978-79 among school districts discriminately grouped (blocked) by changes in the number of elementary courses of study are reported in Tables 3 and 4.

The school districts were grouped into four "number of elementary courses of study" change blocks--SE4 (increased a great deal) to SE1 (remained the same or decreased a great deal). Studied K-12 public school districts underwent a wide range of changes in the number of elementary courses of study. The study included districts which decreased the number of elementary courses of study a great deal (5.00) and those which increased the same a great deal (1.00).

The mean number of board member changes among the discriminate blocks varied less than one member, (i.e., 13.22 SE2 -12.43 SE3 = .79). The greatest board member change

occurred in a relatively stable group of districts -- the SE_2 block. Superintendents of these districts indicated that the number of elementary courses of study had increased but had not increased a great deal.

A small F (.4574) and a large F probability (.7124) in the ANOVA were computed. An F probability of .7124 is greater than the established significance level of .05; therefore, the decision rule is to accept the null hypothesis and reject the research hypothesis. The accepted hypothesis is:

H_{1a}: no significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) number of elementary courses of study change blocks and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

$H_0: SE_1 = SE_2 = SE_3 = SE_4$ "elementary courses of study"

This implies that there were no significant board membership differences from 1972-73 to 1978-79 among school districts grouped in blocks of discriminate changes in the number of elementary courses of study.

Table 5: Analysis of Variance for the Independent Variable Junior High/Middle School Courses of Study

Source	d.f.	Mean Square	F Ratio	F Probability
Between Groups	3	24.59	2.00	.1146
Within Groups	208	12.27		

Table 6: Ranges, Means and Block Frequency for Junior High/Middle School Courses of Study

Block	Independent Variable Range	Dependent Variable Range	Dependent Mean	Block Frequency
SJ ₁	3.00 - 4.00	8 - 24	12.61	77
SJ ₂	2.86 - 2.88	9 - 27	14.21	29
SJ ₃	2.63 - 2.83	7 - 25	12.31	53
SJ ₄	1.25 - 2.57	8 - 26	12.91	53

The results of board membership stability differences between the years 1972-73 and 1978-79 among school districts discriminately grouped (blocked) by changes in the number of junior high/middle school courses of study are reported in Tables 5 and 6.

The school districts were grouped into four "number of junior high/middle school courses of study" change blocks. For example the SJ₄ districts included those which increased or increased a great deal the number of courses of study and the SJ₁ districts included those which experienced stable or decreased numbers of courses of study. Studied K-12 public school districts encountered a narrower range of change at the junior high/middle school level than at the elementary level. The range at the elementary level was 1 through 5, while the range at this level was 1.25 through 4.00. There

was less change in these numbers of courses of study than at the elementary level. The majority of superintendents reported that the number of courses of study increased at this level.

The mean number of grouped district board member changes ranged from 7.21 (SJ2 numbers of courses of study remained relatively the same) to 5.31 (SJ3 mildly increased numbers of courses of study). Greater board member change took place in relatively stable districts than in districts enjoying a mild increase in the number of courses of study.

A small F (2.00) and a large F probability (.1146) in the analysis of variance were computed. An F probability of .1146 is larger than the established significance level of .05; therefore, the decision rule is to accept the null hypothesis and reject the research hypothesis. The accepted hypothesis is:

H_{1b}(2): No significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) number of junior high/middle school courses of study change blocks and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

H₀: SJ₁ = SJ₂ = SJ₃ = SJ₄ "junior high/middle school number of courses of study"

This would denote that there were no significant board membership stability differences from 1972-73 to 1978-79 among school districts grouped in blocks of discriminate changes in the number of junior high/middle school courses of study.

Table 7: Analysis of Variance for the Independent Variable
High School Courses of Study.

Source	d.f.	Mean Square	F Ratio	F Probability
Between Groups	3	24.28	1.98	.1184
Within Groups	208	12.27		

Table 8: Ranges, Means and Block Frequency for High School
Courses of Study.

Block	Independent Variable Range	Dependent Variable Range	Dependent Mean	Block Frequency
SH ₁	3.00 - 4.38	8 - 27	13.03	71
SH ₂	2.75 - 2.88	9 - 25	13.33	48
SH ₃	2.50 - 2.71	8 - 16	11.70	44
SH ₄	1.50 - 2.38	7 - 24	13.04	49

The effects of board membership stability differences between the years 1972-73 and 1978-79 among school districts discriminately grouped into changes in the number of high school courses of study blocks are outlined in Table 7 and 8.

The school districts were grouped into four "number of high school courses of study" change blocks, i.e., SH4 contains districts that enjoyed a great deal of increase in

the number of high school courses of study. SH1 contains districts that experienced stable or decreased numbers of high school courses of study. The range of change at the high school level was less than at the elementary level (1.50 to 4.38 versus 1 to 5) but greater than the junior high/middle school level (1.50 to 4.38 versus 1.25 to 4.00).

The mean number of grouped district board member changes ranged from 4.7 (SH3 increased block) to 6.33 (SH2 mildly increased block). Greater board member change occurred in districts that tended not to increase or decrease the number of courses of study.

A small F (1.98) and a large F probability (.1184) in the analysis of variance were computed. An F probability of .1184 is greater than the established significance level of .05; therefore, the decision rule is to accept the null hypothesis and reject the operational hypothesis. The accepted hypothesis is:

H_{1b}(3): No significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) number of high school courses of study change blocks and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

$H_0: SH_1 = SH_2 = SH_3 = SH_4$ "high school courses of study change"

This indicates that there were no significant board membership stability differences from 1972-73 to 1978-79 among school districts grouped in blocks of discriminate changes in the number of high school courses of study.

Table 9: Analysis of Variance for the Independent Variable
Seventh Grade Michigan Assessment Test Scores

Source	d.f.	Mean Square	F Ratio	F Probability
Between Groups	3	10.17	.81	.4870
Within Groups	208	12.48		

Table 10: Ranges, Means and Block Frequency for Seventh
Grade Michigan Assessment Test Scores

Block	Independent Variable Range	Dependent Variable Range	Dependent Means	Block Frequency
A ₁	14.65% - 35.85%	7 - 26	12.89	53
A ₂	7.50% - 14.40%	8 - 21	12.19	53
A ₃	1.15% - 7.50%	8 - 22	13.09	53
A ₄	+21.60% - + .80%	8 - 27	13.13	53

The outcomes of board membership stability differences (1972-73 to 1978-79) among school districts discriminately grouped by change in seventh grade Michigan Assessment test score blocks are reported in Tables 9 and 10.

The districts were grouped in four test score change blocks -- A4 +21.60% to +.80% change, A3 1.15% to 7.50% change, A2 7.50% to 14.40% change and A1 14.65% to 35.85%

change. Studied districts experienced seventh grade test score changes from a 21.60% decrease to a 35.85% increase between 1974-75 and 1978-79.

The mean of grouped district board member changes ranged from 6.13 (A4 stable and decreased-test-score districts) to 5.19 (A2 increased-test-score districts). Greater board member change took place in stable and decreased-test-score districts than in increased-test-score districts.

A small F (.81) and large F probability (.4870) in the analysis of variance test were computed. An F probability of .4870 is greater than the established significance level of .05; therefore, the decision rule is to accept the null hypothesis and reject the research hypothesis. The accepted hypothesis is:

H_{1c}: No significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) seventh grade Michigan Assessment test scores change blocks and board of education membership stability (1974-75 to 1978-79) in selected Michigan K-12 public school districts.

H₀: $A_1 = A_2 = A_3 = A_4$ "seventh grade Michigan Assessment test scores"

This denotes that there were no significant board member stability differences from 1972-73 to 1978-79 among school districts grouped in blocks of discriminate seventh grade Michigan Assessment test score changes.

Table 11: Analysis of Variance for the Independent Variable Operational Millage Rate

Source	d.f.	Mean Square	F Ratio	F Probability
Between Groups	3	12.63	1.02	.3870
Within Groups	208	12.45		

Table 12: Ranges, Mean and Block Frequency for Operational Millage Rate

Block	Independent Variable Range	Dependent Variable Range	Dependent Mean	Block Frequency
F ₁	29% - 83%	8 - 26	13.24	55
F ₂	16% - 29%	8 - 24	13.10	51
F ₃	08% - 16%	8 - 27	12.81	54
F ₄	-44% - 08%	7 - 17	12.13	52

The effects of board membership stability differences (1972-73 to 1978-79) among school districts discriminately grouped by operational millage rate change are reported in Tables 11 and 12.

The ranges of change among the grouped districts are as follows; (1) F4 districts encountered operational millage changes of a 44 percent decrease to an 8 percent

increase, (2) F3 districts experienced increases of 8 to 16 percent, (3) F2 districts realized increases of 16 to 29 percent and (4) F1 districts enjoyed increases of 29 to 83 percent. Schools included in this study underwent a wide range of changes in operational millage. One district decreased its millage 44% while another increased its millage 83%.

The greatest mean of board member changes (6.24) occurred among districts experiencing the greatest percentage increase. The least mean of board member change (5.13) took place among districts sustaining stable to greatest percentage decrease.

A small F (1.02) and a large F probability (.3870) in the analysis of variance were reported. The reported F probability of .3870 is greater than a .05 significance level; consequently, the null hypothesis is accepted and the operational hypothesis is rejected. The accepted hypothesis is:

H₁: No significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) operational millage rate change blocks and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

$H_0: F_1 - F_2 = F_3 = F_4$ "operational millage rate"

This indicates that there were no significant board membership stability differences from 1972-73 to 1978-79 among school districts grouped in blocks of discriminate operational millage rate changes.

Table 13: Analysis of Variance for the Independent Variable Percentage of Minority Students

Source	d.f.	Mean Square	F Ratio	F Probability
Between Groups	3	3.64	.29	.83
Within Groups	208	12.58		

Table 14: Ranges, Means and Block Frequency for Percentage of Minority Students

Block	Independent Variable Range	Dependent Variable Range	Dependent Mean	Block Frequency
I ₁	2.15% - 23.66%	8 - 27	13.06	53
I ₂	.75% - 2.08%	7 - 24	12.48	52
I ₃	.13% - .64%	8 - 26	13.00	54
I ₄	-4.65% - .11%	8 - 25	12.75	53

The results of board membership stability differences (1972-73 to 1978-79) among school districts discriminately grouped into percentage of minority student change blocks are reported in Tables 13 and 14.

The districts were grouped into four minority percentage change blocks; (1) the I4 block contained those districts that realized a 4.65% decrease to an .11% increase in minority

students, (2) the I3 block contained those districts that underwent a .13% to a .74% increase in minority students, (3) the I2 block contained those districts that experienced a .75% increase to a 2.08% increase in minority students and (4) the I1 block contained those districts that encountered a 2.15% increase to a 23.66% increase in minority students. Studied districts experienced a range of minority student change of -4.65% to +23.66%.

The mean number of grouped district board member changes range was less than one (1) board member. (I1 13.06 - I2 12.48 = .58 board member).

A small F (.29) and large F probability (.83) are reported in Table 13. The computed F probability of .83 is greater than the set significance level of .05; consequently, the null hypothesis is accepted and the research hypothesis is rejected. The accepted hypothesis is:

H_{1e}: No significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) percentage of minority student change blocks and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

$$H_0: I_1 = I_2 = I_3 = I_4 \text{ "percentage of minority students"}$$

This finding implies that when school districts are classified by percentage changes of minority students there are no significant differences in board membership stability among the classifications.

Table 15: Analysis of Variance of the Independent Variable School Mission

Source	d.f.	Mean Square	F Ratio	F Probability
Between Groups	3	2.01	.16	.8519
Within Groups	208	12.54		

Table 16: Ranges, Means and Block Frequency for School Mission

Block	Independent Variable Range	Dependent Variable Range	Dependent Mean	Block Frequency
Y ₁	.53% - 20%	7 - 27	12.97	116
Y ₂	0% - .51%	8 - 20	12.63	49
Y ₃	-12% - 0%	9 - 26	12.88	44

Reported in Tables 15 and 16 are the conclusions drawn regarding board membership stability among school districts grouped according to changes in school mission.

School mission changes were measured by the percentage of each school district's K-12 enrollment that adult and pre-school enrollments changed from 1972-73 to 1978-79. One hundred and sixteen (116) of the studied districts realized a growth of .53% to 20%. These were grouped into

Y1 block. Forty-nine (49) of the districts sustained 0% to a .51% growth. These were grouped into the Y2 block. Forty-four (44) districts encountered a change of 0 to 12%. These were grouped into the Y3 block. A school mission change of +10% is rather substantial. For example, if a school district's K-12 enrollment was 3,000 pupils in 1972-73, a 10% growth means an increase of 300 pre-school and full-time-equivalent-adult students by 1978-79. A -1% change in a district of 15,000 students means that a middle-cities size district lost 150 pre-school and f.t.e adult students in the same time span.

The means of board member changes within the groups varied less than one-half a board member between the groups (.34). The greatest average board member change occurred in those districts realizing the greatest school mission growth.

The F notated in Table 15 is small. The F probability is greater than the established significance level.

(.85 > .05). The decision rule is to accept the null hypothesis and reject the research hypothesis. The accepted hypothesis is:

H₁: No significant difference ($\alpha = .05$) will be found among the least (4) to greatest (1) school mission change blocks and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

H₀: $Y_1 = Y_2 = Y_3 = Y_4$ "school mission"

No significant board membership stability differences were found among school districts grouped into three (3) discriminate school mission change blocks.

Table 17: Analysis of Variance for the Independent Variable Teacher Volunteering

Source	d.f.	Mean Square	F Ratio	F Probability
Between Groups	3	9.07	.71	.5487
Within Groups	208	12.82		

Table 18: Ranges, Means and Block Frequency for Teacher Volunteering

Block	Independent Variable Range	Dependent Variable Range	Dependent Mean	Block Frequency
V ₁	-04% - +93%	8 - 22	12.96	53
V ₂	-10% - -04%	7 - 27	13.36	53
V ₃	-18% - -11%	9 - 24	13.07	43
V ₄	-100% - -18%	8 - 24	12.37	52

Change in the percentages of teacher volunteering for sampled districts is recorded in Table 18. The effects of board membership differences (1972-73 to 1978-79) among school districts discriminately grouped by teacher volunteering

rate differences are reported in Tables 17 and 18.

Reported changes in teacher volunteering varied from an increase of 93% to a decrease of 100%. School districts were grouped into four discrete change blocks; (1) districts in the V4 block suffered a decrease in teacher volunteering of 18 to 100 percent, (2) districts in the V3 block sustained a decrease in teacher volunteering of 11 to 18 percent, (3) districts in the V2 block encountered a loss of teacher volunteering of 4 to 10 percent and (4) the majority of districts in the V1 block enjoyed an increase in teacher volunteering. Of the 201 districts studied in this variable, 173 experienced decreases in the rate of teacher volunteering of 1 to 100 percent. This indicates that the extent of teacher volunteering for extra-curricular activities decreased for 86% of the districts studied.

The mean number of grouped district board member changes ranged from 5.37 (V4 greatest-decrease block) to 6.36 (V2 slight decrease block). Greater average board member change occurred among the more stable districts than in the districts encountering the greatest decline in teacher volunteering.

A small F (.71) and a large F probability (.5487) are denoted in Table 19. Since the F probability is greater than the established significance level of .05 (.5487 $>$.05), the decision rule is to accept the null hypothesis and reject the operational hypothesis. The accepted hypothesis is:

H_{1g}: No significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) teacher volunteering change blocks and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

$$H_0: V_1 = V_2 = V_3 = V_4 \text{ "teacher volunteering"}$$

No significant board membership stability differences were noted among the school districts which were grouped into four teacher volunteering change blocks.

Table 19: Analysis of Variance for the Independent Variable Staff Conflict and Anxiety

Source	d.f.	Mean Square	F Ratio	F Probability
Between Groups	3	24.33	1.97	.1194
Within Groups	206	12.34		

Table 20: Ranges, Means and Block Frequency for Staff Conflict and Anxiety

Block	Independent Variable Range	Dependent Variable Range	Dependent Mean	Block Frequency
X ₁	9.05 - 92.15	7 - 22	11.93	57
X ₂	5.03 - 9.05	8 - 24	13.08	49
X ₃	2.18 - 5.03	8 - 25	13.00	53
X ₄	0. - 2.09	9 - 27	13.49	51

In Tables 19 and 20 outcomes are reported from the test of board member change differences among school districts grouped into discrete blocks of staff conflict and anxiety rates.

Staff conflict and anxiety for each district were measured by adding an employee grievance factor to the sum of work actions, agency investigations, factfindings, charges of unfair labor practices and mediations that occurred district-by-district. Reported-staff conflict and anxiety indicators varied from 0 to 92.15. Fifty-seven school superintendents reported 9.05 to 92.15 indicators. These were grouped in the X1 block. Nineteen superintendents reported 5.03 to 9.05 indicators. These were grouped in the X2 block. Fifty-three superintendents reported 2.18 to 5.03 indicators. These were grouped in the X3 block. Fifty-one superintendents reported 0 to 2.09 indicators. These were grouped in the X4 block. A majority of the districts studied experienced 5 to 92 labor disputes that generally required third-party intervention. These quite often received media coverage. It is thought that such coverage may damage a board of education's credibility and ability to maintain membership stability. However, the smallest mean of board member change was found in the greatest conflict and anxiety group of districts--4.93. The greatest mean of board member change was found in the group of least indicator districts--6.49. According to this analysis there

appears to be little positive relationship between staff conflict and anxiety and board member change.

A small F and a large F probability (1.97 and .1194) respectively) are denoted in Table 19. Since the F probability is greater than the established significance level of .05 (.1194 $\geq$.05), the decision rule is to accept the null hypothesis and reject the research hypothesis. The accepted hypothesis is:

H_{1h}; No significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) staff conflict and anxiety rate blocks and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

$$H_0: X_1 = X_2 = X_3 = X_4 \text{ "staff conflict and anxiety"}$$

This indicates that there were no significant board membership stability differences among school districts grouped in blocks of discriminate staff conflict and anxiety rates.

Table 21: Analysis of Variance for the Independent Variable Practice of Political Openness

Source	d.f.	Mean Square	F Ratio	F Probability
Between Groups	3	6.80	.54	.6553
Within Groups	207	12.59		

Table 22: Ranges, Means and Block Frequency for Practice of Political Openness

Block	Independent Variable Range	Dependent Variable Range	Dependent Mean	Block Frequency
P ₁	17 - 271	7 - 25	12.70	43
P ₂	7 - 17	8 - 27	12.40	53
P ₃	4 - 8	9 - 21	12.93	59
P ₄	0 - 7	8 - 26	13.23	56

The results of board membership stability differences (1972-73 to 1978-79) among school districts discretely grouped into four rate of the practice of political openness blocks are reported in Tables 21 and 22.

Studied school districts'engaged in activities that politically opened the districts organization in varying degrees. Defined openness activities included koffee klatches, public opinion surveys, citizen advisory committees and public hearings. The sum of these activities for each district constituted its practice of political openness rate. Fifty-six districts that engaged in 0 to 4 activities were grouped in the P4 block. Fifty-nine districts that conducted 5 to 9 activities were grouped in the P3 block. Fifty-three districts that engaged in 10 to 20 activities were grouped in the P2 block. Forty-three districts that conducted 20 to 271 activities were grouped in the P1 block.

The mean number of board member changes for these discrete groups ranged from 5.40 (P2) to 6.23 (P4). The greatest mean of board member change occurred among districts with the fewest activities.

A small F (.54) and large F probability (.6553) were found in the analysis of variance test. An F probability of .6553 is greater than the set significance level of .05; therefore, the decision rule is to accept the null hypothesis and reject the research hypothesis. The accepted hypothesis is:

H₁: No significant differences ($\alpha = .05$) will be found among the least (4) to greatest (1) practice of political openness rate blocks and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

H₀: $P_1 = P_2 = P_3 = P_4$ "practice of political openness"

This would indicate that there were no significant board membership stability differences among school districts grouped in blocks of discrete rates of the practice of political openness.

Multiple Regressions Among Studied Variables

A stepwise multiple regression test was used to determine the relationships among the variables studied and board of education membership stability.

The independent variable "change in the number of course of study" has been divided into three variables to

improve the precision of the study. It was divided for reasons previously discussed. This division increased the number of null multiple-regression hypotheses from nine to eleven.

The general multiple-regression hypothesis is stated first and the operational null hypotheses are then stated. Each of the hypothesis is first written and then followed by their symbolic statement. The hypotheses are as follows:

No significant multiple regressions ($\alpha = .05$) will be found among the variables studied and board of education membership stability in selected Michigan K-12 public school districts using a stepwise multiple regression test.

$$H_0: B_1 + B_2R + B_3S + B_4SJ + B_5SH + B_6A + B_7F + B_8I + B_9Y + B_{10}V + B_{11}X + B_{12}P = 0$$

H2a: No significant regression ($\alpha = .05$) will be found between declining pupil enrollment (1972-73 to 1978-79) and board of education membership stability in selected Michigan K-12 public school districts.

$$H_0: B_1 + B_2R = 0 \text{ "declining pupil enrollment"}$$

H2b(1) No significant regression ($\alpha = .05$) will be found between changes in the number of elementary courses of study (1972-73 to 1978-79) and board of education membership stability in selected Michigan K-12 public school districts.

$$H_0: B_1 + B_3SE = 0 \text{ "elementary number of courses of study"}$$

H2b(2): No significant regression ($\alpha = .05$) will be found between changes in the number of junior high/middle school courses of study (1972-73 to 1978-79) and board of education membership stability in selected Michigan K-12 public school districts.

$$H_0: B_1 + B_4SJ = 0 \text{ "junior high/middle school number of courses of study"}$$

H2b(3): No significant regression ($\alpha = .05$) will be found between changes in the number of high school courses of study (1972-73 to 1978-79) and board of education membership stability in selected Michigan K-12 public school districts.

$$H_0: B_1 + B_5SH = 0 \text{ "high school number of courses of study"}$$

H2c: No significant regression ($\alpha = .05$) will be found between changes in seventh grade Michigan Assessment test scores (1974-75 to 1978-79) and board of education membership stability in selected Michigan K-12 public school districts.

$$H_0: B_1 + B_6A = 0 \text{ "seventh grade Michigan Assessment test scores"}$$

H2d: No significant regression ($\alpha = .05$) will be found between changes in operational millage rates (1972-73 to 1978-79) and board of education membership stability in selected Michigan K-12 public school districts.

$$H_0: B_1 + B_7F = 0 \text{ "operational millage rate"}$$

H2e: No significant regression ($\alpha = .05$) will be found between changes in the percentage of minority students (1972-73 to 1978-79) and board of education membership stability in selected Michigan K-12 public school districts.

$$H_0: B_1 + B_8I = 0 \text{ "percentage of minority students"}$$

H2f: No significant regression ($\alpha = .05$) will be found between changes in school mission (1972-73 to 1978-79) and board of education membership stability in selected Michigan K-12 public school districts.

$$H_0: B_1 + B_9Y = 0 \text{ "school mission"}$$

H2g: No significant regression ($\alpha = .05$) will be found between changes in teacher volunteering (1972-73 to 1978-79) and board of education membership stability in selected Michigan K-12 public school districts.

$$H_0: B_1 + B_{10}V = 0 \text{ "teacher volunteering"}$$

H2h: No significant regression ($\alpha = .05$) will be found between staff conflict and anxiety (1972-73 to 1978-79) and board of education membership stability in selected Michigan K-12 public school districts.

$$H_0: B_1 + B_{11}X = 0 \text{ "staff conflict and anxiety"}$$

H2i: No significant regression ($\alpha = .05$) will be found between the practice of political openness (1972-73 to 1978-79) and board of education membership stability in selected Michigan K-12 public school districts.

$$H_0: B_1 + B_{12}P = 0 \text{ "practice of political openness"}$$

Summary of Hypothesis 2 Results

No overall significant relationship was found among the variables studied and board of education membership stability. However, significant relationships were found among the first ten (10) variables added in stepwise progression and board of education membership stability. This indicates that board member changes are related to combined changes or differences in societal issues. Two variables (changes in operational millage rates and staff conflict and anxiety) were, by themselves, significantly related to board of education membership stability.

Statistical Tests and Treatments--Multiple Regression

The results of the multiple regression analysis for the overall and each of the variables studied are presented in table form. Included in the tables are, (1) a stepwise

ANOVA F that determines if the multiple regressions equal zero, (2) correlation coefficients (board membership change relationship to each studied variable), (3) the multiple regression and (4) the F to enter and its probability. This test provides an ANOVA F distribution that indicates whether or not the tabled-bivariate regression equals zero. "The variable that explains the greatest amount of variance in the dependent variable. . ." will be presented first. "The variable that explains the greatest amount of variance in conjunction with the first. . ."¹ will be presented second and so on.

Table 23: Analysis of Variance for the Independent Variable
Operational Millage Rate

Source	d.f.	Mean Square	F	Overall F Probability
Regression	1	111.51	9.33	.003
Residual	198	11.94		

¹Norman H. Nie et al., Statistical Package for the Social Sciences, (New York: McGraw-Hill Book Co., 1975), p. 345.

Table 24: Correlation Coefficient, Multiple Regression, F to Enter and Probability for Operational Millage Rate.

Correlation Coefficient	Multiple Regression	F to Enter	Probability
-.21217	.21217	9.33	.003

The results of the multiple regression analysis of the relationship between board membership change and changes in operational millage are reported in Tables 23 and 24. The ANOVA test of the residual and regression variance is reported in Table 23. A large F (9.33) and small F probability (.003) are reported. An F probability of .003 is less than the established significance level of .05; therefore, the decision rule is to accept the research hypothesis and reject the null hypothesis. The accepted hypothesis is:

H2d: Significant regression ($\alpha = .05$) will be found between changes in operational millage rates (1972-73 to 1978-79) and board of education membership stability in selected Michigan K-12 public school districts.

$$H_0: B_1 + B_7F \neq 0 \text{ "operational millage rate"}$$

On the basis of this multiple-regression test an overall significant relationship exist between operational millage change and board of education membership stability.

The correlation coefficient is negative (-.21217). This would indicate that school districts that lowered operational millage rates experienced the greatest-board-member change.

Lowered millage rates generally translate into fewer dollars. Fewer dollars translate into fewer programs and services a school district can provide its patrons. Fewer programs and services may translate into patron dissatisfaction with the board of education. This dissatisfaction may translate into board member changes.

Table 25: Analysis of Variance for the Independent Variable Staff Conflict and Anxiety in Conjunction with Presented Variable F.

Source	d.f.	Mean Square	F	Overall F Probability
Regression	2	91.30	7.84	.001
Residual	197	11.65		

Table 26: Correlation Coefficient, Multiple Regression, F to Enter and Probability for Staff Conflict and Anxiety

Correlation Coefficient	Multiple Regression	F to Enter	Probability
.18464	.27151	6.10	.014

Tables 25 and 26 contain the results of the multiple and bivariate analysis of the relationships among staff conflict and anxiety, previously discussed variable and board membership stability. The ANOVA F test of the combined residual and regression variance is reported in Table 25. The bivariate F to enter test is reported in Table 26. The multiple regression ANOVA F reported in Table 25 is 7.84 and its probability is .001. Since this probability is less than the established level of significance ($.001 < .05$), a significant relationship exists among staff conflict and anxiety, the previously discussed variable and board membership stability. The bivariate F to enter test outlined in Table 26 is 6.10 and its probability is .014. Since this probability is less than the established level of significance ($.014 < .05$), a significant relationship exist between staff conflict and anxiety and board membership stability. Therefore, the research hypothesis is accepted and the null hypothesis is rejected. The accepted hypothesis is:

H2h: A significant regression ($\alpha = .05$) will be found between staff conflict and anxiety (1972-73 to 1978-79) and board of education membership stability in selected Michigan K-12 public school districts.

$$H_0: B_1 + B_{11}X \neq 0 \text{ "staff conflict and anxiety"}$$

This would indicate, (1) that school districts experiencing the greatest staff conflict and anxiety also experience the greatest board membership change and (2) that

school districts encountering the greatest staff conflict and anxiety in combination with lower operational millage suffered the greatest board membership change.

Table 27: Analysis of Variance for the Independent Variable Percentage of Minority Students in Conjunction with Presented Variables F and X.

Source	d.f.	Mean Square	F	Overall F Probability
Regression	3	64.45	5.53	.001
Residual	196	11.65		

Table 28: Correlation Coefficient, Multiple Regression, F to Enter and Probability for Percentage of Minority Students

Correlation Coefficient	Multiple Regression	F to Enter	Probability
-.05009	.27939	.92	.338

The effects of the multiple regression analysis of the relationship among board membership stability, change in the percentage of minority students and previously presented variables are presented in Tables 27 and 28. The ANOVA F test of the combined residual and regression variance is reported in Table 27. The reported F is large (5.53) and the F probability is smaller than the fixed level of

significance (.001 $\leq$.05). Therefore, an overall significant relationship exists among changes in the percentage of minority students, previously presented variables and board of education membership stability.

Table 28 contains an F to enter of .92 and an F probability of .338. Since this F is small and its probability is larger than the set significance level the null hypothesis for the single variable "percentage of minority student change" is accepted (.228 $>$.05). The research hypothesis is rejected. The accepted hypothesis is:

H2e: No significant regression ($\alpha = .05$) will be found between changes in the percentage of minority students (1972-73 to 1978-79) and board of education membership stability in selected Michigan K-12 public school districts.

$$H_0: B_1 + B_8I = 0 \text{ "percentage of minority students"}$$

This denotes, (1) that change in percentage of minority students, by itself, is not related to change in board members and (2) that school districts experiencing the greatest drop (correlation coefficient = $-.05009$) in percentage of minorities, in combination with previously presented variables encountered the greatest board member change.

Table 29: Analysis of Variance for the Independent Variable Declining Pupil Enrollment in Conjunction with Presented Variables F, X and I.

Source	d.f.	Mean Square	F	Overall F Probability
Regression	4	52.13	4.48	.002
Residual	195	11.63		

Table 30: Correlation Coefficient, Multiple Regression, F to Enter and Significance for Declining Pupil Enrollment

Correlations Coefficient	Multiple Regression	F to Enter	Probability
.08132	.29013	1.30	.255

Tables 29 and 30 contain the outcomes of the multiple and bivariate regression computations among declining pupil enrollment, prior discussed variables and board membership stability. An ANOVA F test of the combined residual and regression variance is outlined in Table 29. The presented F of 4.48 is large. The overall F probability of .002 is less than the established level of significance ($.002 < .05$). On the bases of this analysis an overall significant relationship exists among declining pupil enrollment, formerly analyzed variables and board of education membership stability.

The specific F for this variable (declining pupil enrollment) is the F to enter reported in Table 30. Since the F to enter is small (1.30) and its probability is greater than .05 (.255 > .05), the decision rule is to accept the null hypothesis and reject the research hypothesis. The accepted hypothesis is:

H2a: No significant regression ($\alpha = .05$) will be found between declining pupil enrollment (1972-73 to 1978-79) and board of education membership stability in selected Michigan K-12 public school districts.

$$H_0: B_1 + B_2R = - \text{"declining pupil enrollment"}$$

This connotes, (1) that declining pupil enrollment, by itself, is not related to changes in board of education membership and (2) that school districts suffering the greatest enrollment decline (correlation coefficient = -.08132) in conjunction with preceding variables encountered the greatest board membership change.

Table 31: Analysis of Variance for the Independent Variable Practice of Political Openness in Conjunction with Presented Variables F, X, I and R.

Source	d.f.	Mean Square	F	Overall F Probability
Regression	5	44.24	3.80	.003
Residual	194	11.63		

Table 32: Correlation Coefficient, Multiple Regression, F to Enter and Probability for Practice of Political Openness

Correlation Coefficient	Multiple Regression	F to Enter	Probability
.11923	.29882	1.09	.298

The ANOVA F test of combined residual and regression among previously discussed variables, the practice of political openness and board membership stability is presented in Table 31. The data denote (1) that an F of 3.80 is larger and (2) that an overall F probability of .003 is less than the set significance level of .05 ($.003 < .05$). Given these facts, an overall significant relationship exists among the practice of political openness, formerly discussed variables and board of education membership stability.

The specific F for this variable (practice of political openness) is the F to enter recorded in Table 32. This F is small (1.09), its probability is large (.298) and greater than the fixed level of significance (.05). Therefore, the null hypothesis is accepted and the research hypothesis is rejected. The accepted hypothesis is:

H2i: No significant regression ($\alpha = .05$) will be found between the practice of political openness and board of education membership stability in selected Michigan K-12 public school districts.

$$H_0: B_1 + B_{12}P = 0 \text{ "practice of political openness"}$$

This indicates (1) that the practice of political openness by itself is not related to changes in board of education membership and (2) that school districts practicing the greatest political openness (the correlation coefficient is positive) in tandem with prior analyzed variables sustained the greatest board member change.

Table 33: Analysis of Variance for the Independent Variable School Mission in Conjunction with Presented Variables F, X, I, R and P.

Source	d.f.	Mean Square	F	Overall F Probability
Regression	6	37.52	3.22	.005
Residual	193	11.67		

Table 34: Correlation Coefficient, Multiple Regression, F to Enter and Probability for School Mission

Correlation Coefficient	Multiple Regression	F to Enter	Probability
.00457	.30145	.34	.563

The consequence of the ANOVA F test of combined residuals and regressions among previously studied variables, changes in school mission and board of education membership stability is reported in Table 33. Since the F is large (3.22) and the overall F probability is smaller than the set significance level of .05 (.005 < .05), an overall significant relationship exists among changes in school mission, prior studied variables and board of education membership stability.

Table 34 contains a report of the relationship between changes in school mission and board membership stability. The detailed F to enter is small (.34). The F to enter probability is larger than the established level of acceptance (.563 > .05); therefore, the null hypothesis is accepted and the research hypothesis is rejected. The accepted hypothesis is:

H2f: No significant regression ($\alpha = .05$) will be found between changes in school mission (1972-73 to 1978-79) and board of education membership stability in selected Michigan K-12 public school districts.

$$H_0: B_1 + B_9Y = - \text{"school mission"}$$

This would indicate (1) that change in school mission, by itself, is not related to changes in board of education membership and (2) that school districts which increased school mission (positive correlation coefficient of .00457) in conjunction with the preceding variables sustained the greatest board member change.

Table 35: Analysis of Variance for the Independent Variable Elementary Courses of Study in Conjunction with Presented Variables F, X, I, R, P and Y.

Source	d.f.	Mean Square	F	Overall F Probability
Regression	7	32.58	2.78	.009
Residual	192	11.71		

Table 36: Correlation Coefficient, Multiple Regression, F to Enter and Probability for Elementary Courses of Study

Correlation Coefficient	Multiple Regression	F to Enter	Probability
.08545	.30342	.25	.627

Table 35 contains a computed ANOVA F that tests whether or not the multiple regressions are zero among formerly investigated variables, changes in the number of elementary courses of study and board membership stability. The computed F is large (2.78) and its probability is small (.009). Therefore, since a probability of .009 is less than the fixed level of significance of .05, an overall significant relationship exists among changes in the number of elementary courses of study, previously stated variables and board of education membership stability.

The results of the bivariate regression between changes in the number of elementary courses of study and board membership stability are presented in Table 36. The F to enter is small (.25). Its F to enter probability is larger than the established level of significance (.617 > .05); therefore, the null hypothesis is accepted and the research hypothesis is rejected. The accepted hypothesis is:

H_{2b}(2); No significant regression ($\alpha = .05$) will be found between changes in the number of elementary courses of study (1972-73 to 1978-79) and board of education membership stability in selected Michigan K-12 public school districts.

$$H_0: B_1 + B_3SE = 0 \text{ "elementary courses of study"}$$

According to this test, (1) changes in the number of elementary courses of study, by themselves, are not related to changes in board of education membership and (2) school districts which reduced the number of elementary courses of study in combination with previously presented variables underwent the greatest board member change.

Table 37: Analysis of Variance for the Independent Variable Seventh Grade Michigan Assessment Test Scores in Conjunction with Presented Variables F, X, I, R, P, Y and SE

Source	d.f.	Mean Square	F	Overall F Probability
Regression	8	28.95	2.46	.015
Residual	191	11.76		

Table 38: Correlation Coefficient, Multiple Regression, F to Enter and Probability for Seventh Grade Michigan Assessment Test Scores

Correlation Coefficient	Multiple Regression	F to Enter	Probability
.06634	.30577	.30	.584

Table 37, contains an analysis of variance F that test whether the multiple regression is zero among previously discussed variables, changes in seventh grade Michigan Assessment test scores and board membership stability. The computed F is large (2.46) and its probability is small (.015). This overall F probability is less than the set significance level of .05 ($.015 < .05$). Therefore, an overall significant relationship exists among changes in seventh grade Michigan Assessment test scores, preceding variables and board of education membership stability.

The results of the bivariate regression between changes in seventh grade Michigan Assessment test scores and board membership stability are presented in Table 38. The F to enter is small (.30). Its probability is larger than the fixed level of significance, ($.584 > .05$); therefore, the null hypothesis is accepted and the research hypothesis is rejected. The accepted hypothesis is:

H2c: No significant regression ($\alpha = .05$) will be found between change in seventh grade Michigan Assessment test scores (1974-75 to 1978-79) and board of education membership stability in selected Michigan K-12 public school districts.

$$H_0: B_1 + B_6A = 0 \text{ "seventh grade Michigan Assessment test scores"}$$

This would denote (1) that changes in seventh grade Michigan Assessment test scores, by themselves, are not related to change in board of education membership and (2) that school districts enjoying improved seventh grade Michigan Assessment test scores in combination with prior analyzed variables encountered the greatest board member change.

Table 39: Analysis of Variance for the Independent Variable Teacher Volunteering in Conjunction with Presented Variables F, X, I, R, P, Y, SE and A.

Source	d.f.	Mean Square	F	Overall F Probability
Regression	9	26.07	2.21	.024
Residual	190	11.80		

Table 40: Correlation Coefficient, Multiple Regression, F to Enter and Probability for Teacher Volunteering

Correlation Coefficient	Multiple Regression	F to Enter	Probability
.02214	.30775	.26	.614

The ANOVA test of combined residuals and regression among prior discussed variables, changes in teacher volunteering and board membership stability is reported in Table 39. The reported data denote, (1) that an F of 2.21 is large and (2) that an overall F probability of .024 is less than the set significance level of .05 (.024 > .05). On the basis of these test an overall significant relationship exists among changes in teacher volunteering, prior analyzed variables and board of education membership stability.

The specific F for this variable (teacher volunteering) is the F to enter recorded in Table 40. This F to enter is small (.26). Its probability is large (.614) and greater than the fixed level of significance (.614 > .05). Consequently, the null hypothesis is accepted and the research hypothesis is rejected. The accepted hypothesis is:

H2g: No significant regression ($\alpha = .05$) will be found between changes in teacher volunteering (1972-73 to 1978-79) and board of education membership stability in selected Michigan K-12 public school districts.

$$H_0: B_1 + B_{10}V = 0 \text{ "teacher volunteering"}$$

This connotes, (1) that changes in teacher volunteering, by themselves, are not related to changes in board of education membership and (2) that school districts enjoying the greatest teacher volunteering in tandem with previously discussed variables sustained the greatest board member change.

Table 41: Analysis of Variance for the Independent Variable Junior High/Middle School Courses of Study in Conjunction with Presented Variables F, X, I, R, P, Y, SE, A and V

Source	d.f.	Mean Square	F	Overall F Probability
Regression	10	23.60	1.99	.036
Residual	189	11.86		

Table 42: Correlation Coefficient, Multiple Regression, F to Enter and Probability for Junior High/Middle School Courses of Study.

Correlation Coefficient	Multiple Regression	F to Enter	Probability
.03208	.30863	.11	.736

Table 41, contains an analysis of variance F that test whether the multiple correlation is zero among previously discussed variables, changes in the number of junior high/middle school courses of study and board membership change. The computed F is large (1.99) and its probability is small (.036). This F probability is less than the set significance level of .05 ($.036 < .05$); therefore, an overall significant relationship exists among changes in the number of junior high/middle school courses of study, prior discussed variables and board membership stability.

The results of the bivariate regression between changes in the number of junior high/middle school courses of study and board of education member change are reported in Table 42. The F to enter is small (.11). Its probability is greater than the fixed level of significance (.736 > .05). Given these facts the null hypothesis is accepted and the research hypothesis is rejected. The accepted hypothesis is:

H2b(2); No significant regression ($\alpha = .05$) will be found between changes in the number of junior high/middle school courses of study (1972-73 to 1978-79) and board of education membership stability in selected Michigan K-12 public school districts.

$$H_0: B_1 + B_4 SJ = 0 \text{ "junior high/middle school number of courses of study"}$$

This would indicate (1) change in the number of junior high/middle school courses of study, by itself, is not related to change in board of education membership and (2) that school districts which reduce the number of junior high courses of study in combination with previously presented variables experienced the greatest board member change.

Table 43: Analysis of Variance for the Independent Variable Senior High Courses of Study in Conjunction with Presented Variables F, X, I, R, P, Y, SE, A, V and SJ

Source	d.f.	Mean Square	F	Overall F Probability
Regression	11	21.58	1.81	.055
Residual	188	11.91		

Table 44: Correlation Coefficient, Multiple Regression, F. to Enter and Probability for Senior High Courses of Study

Correlation Coefficient	Multiple Regression	F to Enter	Probability
.05386	.30953	.11554	.734

The effects of an ANOVA F test that determined whether or not the multiple regression is zero are reported in Table 43. The computed F is small (1.81). Its probability level is greater than the established significance level (.055 > .05). The decision rule is to accept the general null hypothesis and reject the general research hypothesis. The accepted hypothesis is:

No significant multiple regression ($\alpha = .05$) will be found among the variables studied and board of education membership stability in selected Michigan K-12 public school districts using a step-wise multiple regression test.

$$H_0: B_1 + B_2R + B_3S + B_4SJ + B_5SH + B_6A + B_7F + B_8I + B_9Y + B_{10}V + B_{11}X = B_{12}P = 0$$

Table 44, is a presentation of the specific ANOVA F test of the bivariate regression between changes in the number of high school courses of study and board membership stability. The reported F to enter is small (.11554) and the F probability is larger than the fixed level of significance (.734 > .05); therefore, the decision rule is to accept the null hypothesis and reject the research hypothesis. The accepted hypothesis is:

H2b(3): No significant regression ($\alpha = .05$) will be found between changes in the number of high school courses of study (1972-73 to 1978-79) and board of education membership stability in selected Michigan K-12 public school districts.

$$H_0: B_1 + B_5SH = 0 \text{ "high school courses of study"}$$

This denotes that changes in the number of high school courses of study, by themselves, or in combination with all variables studied are not related to changes in board of education membership.

Multiple Regression Test - Three Selected Variables

The results of the step wise-multiple-regression analysis for three selected variables are presented in table form. The variables were selected using three criteria, (1) highest partial-correlation coefficient for variables not in equation after the first step, (2)

highest F value of variables not in the equation after the first step and (3) largest simple regression.

Table 45: Partial Coefficient (Variable Not in Equation), F (Variable not in Equation) and Simple Regression

Variable	Partial Coefficient	F	Simple Regression
*Millage	-.21217	9.33	-.21217
*Staff Conflict	.17336	6.10	.18464
Minorities	-.04459	.39	-.05009
Enrollment	.09866	1.94	.08132
*Political	.10985	2.37	.11923
Mission	-.01990	.08	.00457
Elementary	.07743	1.19	.08545
Assessment	.03862	.29	.06634
Volunteering	.01329	.03	.02214
Junior High	.03717	.27	.03208
High School	.06670	.88	.05386

*Three Variables Selected.

These selected variables contained a greater amount of F, partial coefficient and simple regression than the eight other variables combined. ($17.80 \vee 5.07 = .49538 \vee .39636 - .51604 \vee .39585$).

The results of the multiple-regression analysis for the selected variables are presented in compiled table form. The selected variable are (1) operational millage rate, (2) staff conflict and anxiety and (3) practice of political openness.

Table 46: Analysis of Variance for the Independent Variables
Operational Millage Rate, Staff Conflict and
Anxiety and Practice of Political Openness

Source	d.f.	Mean Square	F	Overall F Probability
Regression	3	64.12	5.50	.001
Residual	196	11.66		

Table 47: Correlation Coefficients, Multiple Regression, F
to Enter Probability for Operational Millage Rate,
Staff Conflict and Anxiety and Practice of
Political Openness.

Variable	Correlation Coefficient	Multiple Regression	F to Enter	Probability
Millage	-.21217	.21217	9.33	.003
Staff Con-	.18464	.27151	6.10	.014
flict	.11923	.27366	.83	.362
Political				

On the bases of the multiple regression an overall significant relationship exists among changes in operational millage rates, staff conflict and anxiety, the practice of political openness and board of education membership stability.

This would indicate (1) that these combined variables are related to board of education membership stability and (2) that school districts that lowered operational millage

rates, experienced staff conflict and anxiety and practiced the greatest-political openness experienced the greatest board membership change.

Summary

The conclusions drawn regarding the hypotheses are based on the sample of districts whose superintendents returned the survey. Two hundred and twelve useable surveys were returned from three hundred and seventy-eight Michigan K-12 public school districts which experienced stable or declining enrollment.

The eleven ANOVA F tests found no significant differences among discrete groups of school districts placed in change or rate blocks. The ANOVA F test was used to determine significant board of education membership stability differences among blocks of districts that had encountered varying degrees of change in the variables studied. The grouping of districts into change or rate difference blocks produced forty-three discrete blocks of districts. Variance of board member change between these groups (blocks) of districts were statistically compared with the variance of board member change within these groups (blocks) of districts. Significance for this comparison was established at .05. This analysis found no significant differences in board membership stability among

any of the forty-three groups of school districts. According to this finding board member change is not a function of any societal change or issue that was studied.

The regression analysis provides an F that determines whether or not studied multiple or bivariate regressions equal zero. Each of the studied variables was tested separately and in combination. A step-wise-multiple-regression test was used for combined determinations. An F to enter test was used for bivariate determinations. The significance level was set at .05. Significant bivariate relationships were found between (1) board member change and lowered operational rates and (2) board member change and staff conflict and anxiety.

Significant multiple relationships were found among ten variables studied and board member change. The eleventh variable introduced in the stepwise scheme (change in the number of high school courses of study) was not significantly related to board member change, by itself, or in combination with the other selected variables.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Purpose of the Study

The purpose of this investigation was to determine the interrelationships among the following variables and board of education membership stability; (1) declining pupil enrollment, (2) changes in the number of courses of study, (3) changes in seventh grade Michigan Assessment test scores, (4) changes in operational millage rates, (5) changes in percentage of minority students, (6) changes in school mission, (7) rate of teacher volunteering, (8) rate of staff conflict and anxiety, and (9) variance among school boards in the practice of political openness.

Three hundred and seventy-eight (378) K-12 Michigan public schools which (1) had not consolidated or deconsolidated (1972-73 to 1978-79) and (2) had experienced stable enrollment or declining enrollment (1972-73 to 1978-79) were the population of interest. All superintendents of these school districts were surveyed; two hundred and twelve superintendents returned useable surveys.

Two general hypotheses were constructed to test the relationship between board of education membership stability

and each of the nine variables studied.

1. Significant differences ($\alpha = .05$) will be found among the least (1) to greatest (4) change or rate blocks of districts grouped according to each of the variables studied and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

2. Significant multiple regressions ($\alpha = .05$) will be found among the variables studied and board of education membership stability (1972-73 to 1978-79) in selected Michigan K-12 public school districts.

Data for the variables were taken directly from Michigan Department of Education computer tapes and merged with data from survey forms for each sampled district on separate computer tapes.

A one-way analysis of variance with fixed effects was used to test for significant differences in each of the ranged blocks of the variables. A stepwise-multiple regression was used to test for interrelationships among the variables and board of education membership stability.

Major Findings

The conclusions drawn regarding the hypotheses are based on the sample of districts whose superintendents returned the survey. Two hundred and twelve (212) useable surveys were returned from three hundred and seventy-eight (378) Michigan K-12 public school districts which experienced stable or declining enrollment.

The eleven analysis of variance tests found no significant effects among the variables tested and board

of education membership stability. The study and data were designed and transformed to reduce interactions. Blocking of the data into cells was designed to improve precision. These statistical treatments may have reduced variability and thus made it more difficult to determine any significant differences among the data.

While no significant effects were found among the independent variables examined and board membership stability in the analysis of variance, the multiple-regression techniques did yield some significant relationships. However, no overall significant relationship was found in the multiple-regression test. Significant multiple regressions were found among the first ten variables added in stepwise progression, but the eleventh variable--changes in the number of high school courses of study--was not significantly related to changes in board members.

Three variables accounted for the greater part of the significant-multiple regression among the variables studied and board of education membership stability. The three were (1) operational millage rate change, (2) staff conflict and anxiety and (3) the practice of political openness. School districts that experienced lowered operational millage rates, staff conflict and anxiety and practiced the greatest political openness sustained the greatest board member change.

Findings

Certain studies and recommendations reviewed in Chapter Two were based on data similar to those gathered in this study. While the findings of this study substantiated some of those studies and recommendations, not all reviewed conclusions and recommendations were corroborated.

Iannaccone and Lutz hypothesized that change in the number of courses of study offered in the fictional Robertsdale High School (1954-67) combined with other community value changes led to board of education membership change.¹ Data gathered in this study does not support their hypothesis. An ANOVA F test was used to determine whether or not the multiple regression were zero among studied variables--changes in the number of elementary and junior high/middle school courses of study and board-member change. The F probabilities were smaller than the established level of significance ($.009 < .05$ and $.036 < .05$ respectively). Even though the multiple regressions do not equal zero, there is no indication that changes in the number of courses of study at these organizational levels will lead to board-member change in that: (1) the correlation coefficients between changes in the number of

¹Laurence Iannaccone and Frank W. Lutz, Politics, Power, and Policy, (Columbus: C. E. Merrill, 1970), p. 92.

elementary and junior high/middle school courses of study were .08545 and .03208 (not significant at the .05 level) and (2) the small F probabilities were functions of the size of the sample rather than the strength of the relationships.² While the relationships may be statistically significant, the regression coefficients are too small to be used as predictors of change.

Paul Copperman received national media attention following the publication of his book The Literacy Hoax. He popularized the charge that declining test scores are related to changes in the content and numbers of courses that today's students experience.³ The study reported in this dissertation indicated weak support of his charge. Changes in numbers of elementary courses of study had a -.13827 correlation coefficient with changes in seventh grade Michigan Assessment test scores. While the correlation is significant at the .05 level, it is too small to be used as a meaningful substantiation of Copperman's attack.

²Helen M. Walker and Joseph Leu, Elementary Statistical Methods (New York: Holt Rinehart and Winston, Inc., 1969), p. 231

³Paul Copperman, The Literacy Hoax (New York: William Morrow and Co., 1978), p. 61.

Gregg Downey noted rather intense turmoil that faced the New Trier, Illinois, High School District's board of education when it reduced the number of high school courses of study necessitated by financial restraints.⁴ It was hypothesized that changes in the number of courses of study, which caused dissatisfaction with the New Trier board, would be related to board member change (hypotheses H2b(1), H2b(2) and H2b(3)). However, among these sampled districts the relationship of reductions of the numbers of courses of study and board member change at all three levels of school organization was not significant at the .05 level. The correlation coefficient between membership change and numbers of courses of study change at the elementary level was .08545, the junior high/middle school level was .03208 and the high school level was .05386.

The stepwise multiple regression ranking of the variables in the ordering of their relationship to board member change was seventh, tenth and eleventh out of eleven variables studied. In fact, change in the number of high school courses of study combined with, or separate from, other variables was not significantly related to board member change. However, this conclusion should be taken with a note of caution. This study was a sample of Michigan K-12 public school districts experiencing stable or declining

⁴Gregg W. Downey, "How One of North America's Greatest Public High Schools is Being 'Equalized' to Death," American School Board Journal 163 (August 1976): 37.

enrollments. In Michigan during the years 1972-79, high schools generally were not affected by declining enrollment. Knowledge regarding the relationship may have to be left to future study.

Gallup noted that a majority of U.S. citizens over 18 were dissatisfied with property tax as a way of financing schools.⁵ Practitioners assume a relationship between increased taxes and board member change. A surprising relationship surfaced in this study. Board member change is not significantly related to increases in millage rates. It is significantly related to millage rate reductions.

Some additional questions may deserve exploration. Are lowered millage rates related to other societal frustrations. Does the lowering of millage rates interact with other variables (i.e. staff conflict and anxiety) so that its relationship is clear but its effect questionable? Lowered millage rates may cause other variable change. It may cause indirect effects. It may not be directly related to board member change.

Operational millage rate change ranged from +83% to -44%. Pickford, Michigan, Public Schools had the greatest percentage increase, while Glen Lake, Michigan, Community Schools had the greatest decrease. Both are small rural

⁵ Stanley M. Elam, ed., A Decade of Gallup Polls of Attitudes Toward Education 1969-1978, (Bloomington: Phi Delta Kappa, Inc., 1979, p. 358.

school districts. Pickford is located in the upper peninsula, while Glen Lake is located in the Northwest lower peninsula. Pickford had twelve (12) board members. Glen Lake had twenty (20) board members.

Levine and Meyer contended that ". . . enrollment decline tended to accelerate in schools with a relatively high percentage of black students. . . ." ⁶ The data collected for this study showed some degree of support for Levine and Meyer's contention. The correlation coefficient between the two variables was .23822. This indicated that the greater the enrollment decline the greater the minority percentage increase.

Gallup recommended an expansion of the school's mission to command strong support for the schools. He specifically suggested that ". . . greater efforts should be made to expand adult education" ⁷ In two instances this study did not support Gallup's recommendations. First, the correlation coefficient between school mission expansion and operational millage increases was small (-.11265). As the school's functions (mission) were increased, the operational millage rate decreased. However, this may also

⁶Daniel V. Levine and Jeanie Keeny Meyer, "Level and Rate of Desegregation and White Enrollment Decline in a Big City School System," Social Problems 24 (April 1977): p. 452.

⁷Elam, A Decade of Gallup Polls, p. 3.

indicated that increases in full time equivalent adult students, which generate additional state aid, enabled schools to reduce local millage. Second, the correlation coefficient between board membership change and school mission was .00457. This indicates almost no relationship between expanded contact with community adults and increased support of the schools. According to these findings increased adult or pre-school programs do not stabilize board membership.

Mayhew pointed out that "Teachers block school closing because they can mean no cold reality of the loss of jobs, . . ." ⁸ Nolte mentioned that ". . .teachers. . .have powerful unions that are going to do their best to make sure that (a) teachers aren't riffed off, . . ." ⁹ Reductions in the number of courses of study may translate into fewer teachers. Fewer teachers may translate into staff conflict and anxiety. Data in this study indicates a statistical, but not meaningful support, of Mayhew and Nolte's thinking. Specifically the relationships among declining enrollments, reductions in courses of study and staff conflict and anxiety are not zero ($H_0: B_1S + B_{10}X \neq 0$).

⁸Lewis B. Mayhew, Educational Leadership and Declining Enrollments. (Berkeley: McCutchan Publishing Corp., 1974), p. 135.

⁹Chester Nolte, "How to Tell Which Teachers to Keep and Which to Lay Off," American School Board Journal 163 (June 1976), : 28.

The correlation coefficients between elementary, junior high/middle school and high school reductions of courses of study and declining enrollments are .14259, .24810 and .21391 respectively (significant at the .05, .01 and .01 levels). The correlation coefficients between elementary, junior high/middle school and high school reductions of the number of courses of study and staff conflict and anxiety are .21851, .15790 and .21089 respectively (significant at the .01, .05 and .01 levels). Because the sample size is large ($N > 200$), small correlation coefficients are significant at the .05 level; however, small correlation coefficients are not useful as indicators of meaningful relationships or predictors of effects. These reported correlations do not denote strong relationships; therefore, there is a decided lack of verification of Mayhew and Nolte's thinking.

Kruger noted that decline in an organization causes centripetal forces. The employees turn inward and withdraw. They are not expansive and the extent of volunteering decreases.¹⁰ The correlation coefficient between declining enrollment and increases in volunteering is $-.18258$

¹⁰ Interview with Daniel Kruger, Michigan State University, East Lansing, Michigan, 7 May 1979.

(significant at the .01 level). Teachers volunteer a little less in declining-enrollment schools than in stable-enrollment schools. Again, the small correlation coefficient indicates a statistically, but not meaningful, significant relationship.

There is a lack of research regarding the impact of decline on organizations. Demographically the United States is entering an era of decline. Research regarding decline in organizations is needed. This finding regarding the relationship of volunteering to decline demonstrates the need to explore, to question and to search. School administrators need this information to be able to predict, anticipate and plan.

Berman and McLaughlin argued that the response to decline requires "participatory structures." They recommended an open system. One that gives feedback and insures participation.¹¹ Iannaccone and Lutz equated political openness with board membership stability. However, this study did not find a positive relationship between the practice of political openness and board membership stability. The small correlation coefficient (.11923) between the practice of political openness and the number of board

¹¹U.S. Department of Health, Education and Welfare, National Institute of Education, The Management of Decline: Problems, Opportunities, and Research Questions, August 1977, p. 305.

member changes did not indicate a meaningful relationship.

Eisenberger speculated that declining enrollment would cause a reduction in the number of courses of study.¹² The conclusions reported in this study denote statistical but not meaningful significant relationships among declining enrollments and reductions in the number of courses of study. The correlation coefficients among the variables at each of the three organizational levels are .14259, .24810 and .21891. This data does not confirm her speculations.

Recommendations for educational governance and political practices were cited in the review of the literature. Specifically, boards of education were encouraged to practice political openness and open the schools to persons previously unserved (pre-schoolers) and grown older (adults). Increased political practice and expansion of the school's mission were suggested as techniques for stabilizing school districts, which were encountering persistent conflict and a lack of community support. Results of the statistical tests reported in this study did not support the rhetoric of the literature in that, (1) school districts practicing the greatest political openness (correlation coefficient

¹²Katherine E. Eisenberger, "New Leadership Skills, Declining Enrollments: Implication for the School Curriculum," NASSP Bulletin 61 (March 1977): 52.

equaled .11923) in tandem with prior analyzed variables sustained the greatest board member change and (2) school districts which increased school mission (correlation coefficient equaled .00457) in conjunction with preceding variables sustained the greatest board-member change.

The following cautions should be exercised in interpreting this data. (1) The study was designed to determine relationships and not cause-effects. (2) School boards experiencing community conflict and anxiety may have initiated political openness techniques and expanded the school's mission to counteract conflict and instability. (3) Using the data generated in this study makes it difficult to determine which came first--community conflict-- or political practices and/or expanded school mission. (4) The correlation coefficients are small (less than .12) and their usefulness is questionable.

The direction of the correlation coefficients among (1) increases in percentages of minority students and (2) increases in seventh grade Michigan Assessment test scores and board of education membership stability was unanticipated. School districts experiencing the greatest drop (correlation coefficient equaled $-.05009$) in minority students, in combination with other variables, encountered the greatest board member change. School districts enjoying improved seventh grade Michigan assessment test scores (correlation

coefficient equaled .06634) in conjunction with other studied variables encountered the greatest board-member change.

Since the tests used in this study were designed to determine relationships, not cause and effect, it is difficult to determine whether or not increases in minorities or decreases in test scores stabilizes a board's membership. Also, the correlation coefficients are neither statistically or meaningfully significant, in that they are small (less than .07). This indicates that there are almost no relationships among these variables and board-member change. Finally the small correlations may be the result of other societal changes which were not included in this study.

Implications

The superintendent needs tools for planning. He or she needs to be able to anticipate, for surprises become the traps that wreck careers.

Board-member change can produce unanticipated pressures. Such change can reverse the direction of a superintendent's plans. It can cause the superintendent to be out-of-touch with the board of education. A superintendent who is out-of-touch may soon be out of a job.

Superintendents need to anticipate and plan to change.

Long-range planning, continuity of programs and superintendent stability are difficult to achieve when a board of education's membership is constantly changing. A new board member needs time to become acquainted with the operation of a school district and learn "boardmanship." If a board has new members every year, it is constantly learning "boardmanship." The available amount of time to manage the district's business is restricted. In fact, the superintendent and staff spend an inordinate amount of time managing the board. This hinders them from correctly managing the schools.

A changing board is constantly running for re-election without being re-elected, and does not have the power that a re-election yields. Its constant seeking of the power opens the door to narrow-issue-interest groups who pursue advantages for themselves and not for others. The board becomes the victim and the advocate of single issues that appeal to and benefit but a few of the district's patrons. Such political gamesmanship promotes the ill-will of the majority and the defeat of the incumbent.

An alert superintendent will plan for change. He or she will anticipate to avoid instability. He or she will make the board look good. Plans will be made so the board looks well-organized, intelligent, business-like and capable of operating a multi-million-dollar business.

It was anticipated that the results of the study would provide a model for planning. If the multiple regressions found in this study had been meaningful as well as statistically significant, and if the reported levels of significance had been an indication of the strengths of the relationships rather than a function of sample size ($N \geq 200$ combined with a $r \geq .138$ is significant at the .05 level); a model for prediction and planning could have been developed. However, the reported regressions are too small to be useful for predicting relationships.

The lack of predictability inherent in this data is illustrated with two examples presented in Tables 48 and 49 and summarized in Figure 13. A hypothetical school district that enjoyed few societal changes is presented in Table 48. Another hypothetical school district that encountered many societal changes is presented in Table 49. The lack of meaningful significance and predictability among studied variables and board member change are graphed in Figure 13.

Table 48: Prediction of Board Membership Stability (Seven-Year Period, Few-Societal Changes)

Independent Variables	Amount of Change in Variables (X)	Partial Regression (B)	Predicted Amount of Board Member Change (X x B)
Operational Millage Rate	11	-.21217	-2.33
Staff Conflict and Anxiety	1	.17336	.17
Percentage of Minority Students	.3	-.06846	-.02
Declining Pupil Enrollment	.21	.08146	.02
Practice of Political Openness	2	.07475	.14
School Mission	0	-.04168	.00
Elementary Courses of Study	3.00	.03614	.11
Seventh Grade Test Scores	.15	.03971	.01
Teacher Volunteering	0	.03665	.00
Middle Courses of Study	3.00	-.02454	-.07
Sum of Predicted Changes Due to Change in Variables			-1.97
Average Number of Board Members			<u>12.19</u>
Total Predicted Number of Board Members (Y')			10.22

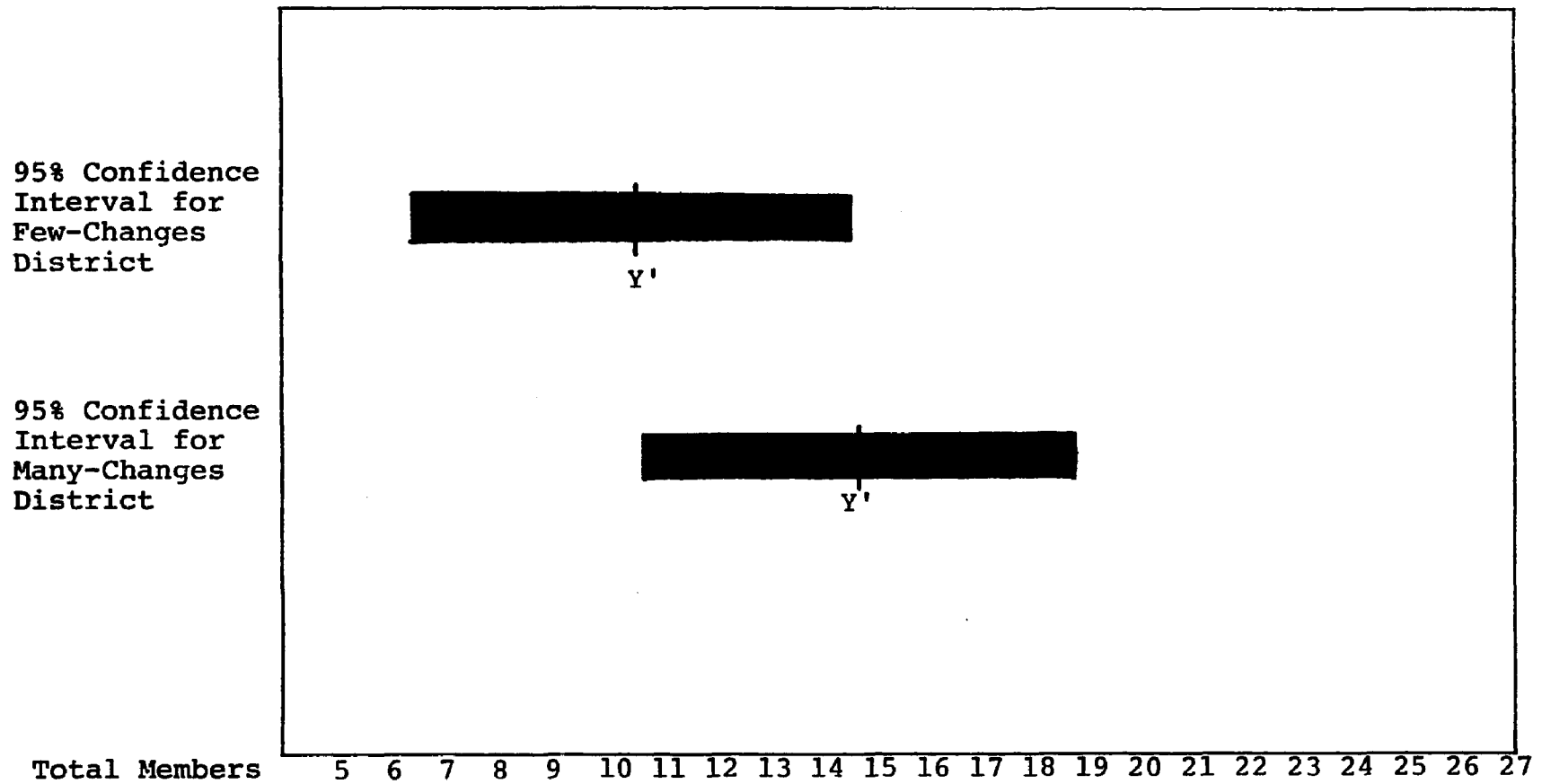
The predicted number of board members in a seven-year period would be between 6.06 (7) and 14.38 given a standard error of 2.12 and a 95% confidence interval. $[10.22 - 1.96 (2.12) < Y' < 10.22 + 1.96 (2.12)]$.

Table 49: Prediction of Board Membership Stability (Seven-Year Period, Many-Societal Changes)

Independent Variables	Amount of Change in Variables (X)	Partial Regression (B)	Predicted Amount of Board Member Change (X x B)
Operational Millage Rate	8	-.21217	-1.70
Staff Conflict and Anxiety	9.04	.17336	1.57
Percentage of Minority Students	2.15	-.06846	- .15
Declining Pupil Enrollment	16	.08146	1.30
Practice of Political Openness	17	.07475	1.27
School Mission	.03	-.04168	.00
Elementary Courses of Study	2.93	.03614	.11
Seventh Grade Test Scores	1.15	.03971	.05
Teacher Volunteering	-.04	.03665	.00
Middle Courses of Study	3.00	-.02454	-.07
Sum of Predicted Changes Due to Change in Variables			2.38
Average Number of Board Members			<u>12.19</u>
Total Predicted Number of Board Members (Y')			14.57

The predicted number of board members in a seven-year period would be between 10.41 and 18.73 given a standard error of 2.12 and a 95% confidence interval $[14.77 - 1.96 (2.12) < Y' < 14.77 + 1.96 (2.12)]$.

Figure 13: Graph of the Prediction of Total Board Members of Two School Districts Experiencing Few and Many Societal Changes



Predictions of board membership stability between two school districts experiencing either few or many societal changes are depicted by graphs in Figure 13. The results of the prediction equation produced overlapping 95% confidence intervals. The 95% confidence interval for changes in board membership stability for the district enjoying few societal changes ranges from 6.06 to 14.38 members. The 95% confidence interval for changes in board membership stability for the district encountering many societal changes ranges from 10.41 to 18.73 members. Since the prediction equation failed to produce discrete 95% confidence intervals of board membership stability between school districts experiencing widely varying degrees of societal changes, its usefulness is doubtful.

The regression analysis produced results which indicated that studied multiple or bivariate regressions were not zero. The bivariate and/or multiple regressions were small (less than .32). Small regressions may be statistically significant ($B_1A + B_2R \neq 0$) without being meaningfully significant. Data presented in tables 48 and 49 and graphed in Figure 13 indicate a lack of meaningful significance in the results of the study reported in this dissertation because, (1) the regression coefficients are small, (2) the predicted ranges of board membership stability are large and (3) the prediction

equation failed to produce discrete confidence intervals of board membership stability between two school districts experiencing widely-varying degrees of societal change.

Recommendations

Organizational growth has received considerable attention and research. Organizational decline has not been given similar treatment. In this era of school enrollment decline in the United States, careful research regarding effects of organizational decline are needed. If planning for decline is important, then research to assist that planning is necessary.

Organizational decline may not be destructive. It may provide the opportunity for quality rather than quantity. It may compress the non-essential and preserve the essential. Continued research of organizations that survive decline will be both informative and instructive for those whose task is to lead organizations through this period. K-12 public schools will of course continue to exist in the 1980's, even though a large number of these schools will experience significant decline. They do not have the option of going out of business. They can provide us with an excellent source of research for studying the shrinkage of human and economic resources in organizations.

Recommendations for additional research include two thrusts, (1) societal issues or variables that may have been overlooked which may be related to board of education membership stability, and (2) the relationship of the superintendent's tenure and board member change.

An additional societal issue that may have a significant relationship to board membership change is student discipline. The public generally believe that school discipline is too lax. They reason that students do not learn because they are uncontrolled. The relationship of this variable to board member change is recommended for future studies.

A second variable not included in this study is the relationship of the superintendent's tenure to board member change. Does a change in superintendents stabilize a board? Is board member change related to superintendents' change? This interrelationship was not examined, but is recommended for future study.

In 1975, Fultz wrote "Reasons Why Michigan School Superintendents were Dismissed or Encouraged to Leave Their Positions Between 1965 and 1975."¹⁴ Several of his findings may be related to the results reported in this study. The

¹⁴David A. Fultz, "A Study of the Reasons Why Michigan School Superintendents were Dismissed or Encouraged to Leave Their Positions Between 1965 and 1975" (Ph.D. dissertation, Michigan State University, 1975), title.

question then can be asked, is board member change related to superintendent change? Will societal changes that are related to board member change eventually create superintendent change? Two of Fultz' findings indicate some relationship. He reported that, "The greatest number (37 percent) of those board members who served on boards of education when action was taken to terminate a superintendent had served on the board two years or less. A total of 69 percent had served five years or less." Specifically, a changed board (less tenured) is one that ". . .dismisses or encourages superintendents to leave their positions. ."¹⁵

This study found that certain societal issues may be related to board member change. Therefore, if societal issues are related to board member change, the new members may change superintendents. Fultz also found that "Forty-five percent of the superintendents (dismissed or terminated) were appraised as being weakest in the area of Community Relationships. The next weakest area was Staff and Personnel Relationships, where 13 percent of the superintendents were appraised as being the weakest."¹⁶ This data in this study indicated a relationship between staff conflict and anxiety and board member change. Fultz's study found a relationship

¹⁵Ibid ., p. 86.

¹⁶Ibid., p. 95.

between staff and personnel relationships and superintendent change. In both studies staff and/or personnel relations were the second most important indicators of change. This may indicate a relationship among specific societal changes, board member changes and superintendent changes. This interrelationship among these several variables deserves future study.

Board member change may be related to the superintendent's ability to handle societal changes. This study did not explore these issues. Future studies that explore the relationship of superintendent turnover and board member change could serve as important bases for planning. The outcomes of the one-way analysis of variance, outlined in Chapter IV, found no significant differences in board member change among selected school districts grouped into rate or change blocks. The results of the multiple-regression techniques reported in Chapter IV noted statistically significant relationships among most, but not all, studied variables and board member change. However, data depicted in Tables 48 and 49, and graphed in Figure 13, demonstrates that the regressions computed from this data do not have meaningful predictability. The prediction equations failed to discriminate amounts of board membership stability between school districts sustaining varying degrees of societal change. Therefore, there is a need to

examine additional societal issues which might have larger correlations and meaningful significance with board membership stability.

Future studies may help school boards and superintendents avoid surprises. These might be able to help with planning so that disruptive changes are minimized. Disruptive board and superintendent changes divert the board attention from school learning. They allow pressure groups to gain footholds of control and employees to practice anarchy.

It is essential that the superintendent and board of education predict and plan for change. By doing so, the board and superintendent can focus the school's attention on school learning. It can help avoid destructive surprises that foster political battles and divert attention from student needs.

APPENDICES

APPENDIX A
LETTER OF ENDORSEMENT
DON ELLIOTT

**MICHIGAN ASSOCIATION
OF
SCHOOL ADMINISTRATORS**



Office of the Executive Director

421 West Kalamazoo, Lansing, Michigan 48933 Telephone 517 371-5250

Dear Superintendent:

Paul Williams, Superintendent, Caledonia Community Schools, is writing his dissertation on the subject "Changes and Issues Confronting School Boards from 1972 to 1979." The results of the enclosed survey could prove meaningful to all of us in Michigan, and I would encourage your participation to see that the survey is completed and returned.

Even though I recognize that surveys are time consuming, meaningful results can make the time you spend completing this survey worth while.

Your cooperation is appreciated.

Sincerely yours,

Don R. Elliott
Executive Director

APPENDIX B
SURVEY FORM

CHANGES AND ISSUES CONFRONTING SCHOOL BOARDS

This study is concerned with the changes which have occurred in school board membership from 1972 to 1979. The lack of board of education membership stability may make the management of school districts difficult. Your assistance in completing this survey will help in identifying current issues that may relate to such membership stability. Many of the questions can be answered by someone other than yourself. However, the accuracy of the data is of critical importance; therefore, your supervision is essential. Thanks, for helping us learn a little more about the institutions we lead.

THE QUESTIONS

1. How many different board members served on your district's board between July 1, 1972 and June 30, 1979_____?
2. How many board members retired from your board of education between July 1, 1972 and June 30, 1979 at the same time they were retiring from work_____?
3. How many board members resigned or retired from your board of education because of relocating in another school district_____?

It is written that changes in educational services, programs or courses of study leads to defeat, retirement and membership changes. To determine the truth of this, the following questions are necessary.

4. Which of the following reflects the last change in the status of the number of courses of study in your elementary schools since 1972?

	Decreased a Great Deal	Decreased	Remained the Same	Increased	Increased a Great Deal
Reading					
Remedial Rdg.					
Arithmetic					
Social Studies					
Health					
Safety					
Spelling					
Penmanship					
English [Lang.]					
Gen. science					
Current Events					
Music [Vocal]					
Music [Instr.]					
Phy. Ed.					
Foreign Lang.					
Art					

5. Which of the following reflects the last change in the status of the number of courses of study in your middle or junior high school since 1972? A COURSE OF STUDY WILL BE DEFINED AS: [1] ONE THAT REQUIRES A CERTIFIED TEACHER, AND [2] ONE THAT IS OFFERED AT LEAST EVERY TWO YEARS.

	Decreased a Great Deal	Decreased	Remained the Same	Increased	Increased a Great Deal
Language Arts [Eng. etc.]					
Mathematics					
Science					
Social Studies					
Language [Foreign]					
Fine Arts [Band, Art]					
Practical Arts [Indust.]					
Health and P.E.					

6. Which of the following reflects the last change in the status of the number of courses of study in your high school since 1972? A COURSE OF STUDY WILL BE DEFINED AS: [1] ONE THAT REQUIRES A CERTIFIED TEACHER, AND [2] ONE THAT IS OFFERED AT LEAST EVERY TWO YEARS.

	Decreased a Great Deal	Decreased	Remained the Same	Increased	Increased a Great Deal
Language Arts [Eng. etc.]					
Mathematics					
Science					
Social Studies					
Language [Foreign]					
Fine Arts [Band, Art]					
Practical Arts [Indust.]					
Health and P.E.					

7. There is a need to determine if board of education membership stability is related to staff conflict and anxiety. Careful consideration here will help answer that question. PLEASE INDICATE THE NUMBER OF TIMES THE FOLLOWING HAPPENED BETWEEN JULY 1, 1972 AND JUNE 30, 1979.

Employee Grievances for which there were written dispositions _____?

Written charges of unfair labor practices _____?

Work actions [strikes, partial strikes, or slow downs] _____?

Agency investigations or hearings [civil rights, unemployment, dept. of labor, worker compensation] _____?

Mediations _____?

Factfindings _____?

Thanks. Now to find out about the extent of teacher volunteering. Some say it decreases during periods of enrollment decline and times of conflict and anxiety. Some even say it may cause unrest in the community and result in board members changes. Careful answers here will help determine whether these sayings are true.

8. How many available extra curricular positions existed in the 1972-73 school year _____?
9. How many positions were staffed with outside employees _____?
10. How many positions were unstaffed _____?
11. How many available extra curricular positions were there in the 1978-79 school year _____?
12. How many positions were staffed with outside employees _____?
13. How many positions were unstaffed _____?

Some recommend that schools expand their function and scope to offset the effects of declining public support and/or enrollment. Your answers here will help determine if they are right.

14. How many pre-kindergarten children [including special education] were enrolled in your district in 1972-73 _____?
15. How many pre-kindergarten children [including special education] were enrolled in your district in 1978-79 _____?
16. How many full time equated adult education students were enrolled in your district in 1972-73 _____?
17. How many full time equated adult education students were enrolled in your district in 1978-79 _____?

Some authorities recommend that school districts practice open participatory politics. Some feel that this practice will reduce community conflict such that board of education membership stability is increased. To determine if this is true the following questions are important.

18. Do you hold coffee klatches in your district _____?
19. How many did you hold in 1978-79 _____?
20. Have you polled your community regarding their opinions toward your school district and education since July 1, 1972? YES _____? NO _____?
21. How many times have you polled opinions since July 1, 1972 _____?
22. Do you hold public hearings regarding educational, building, staff, finance or other issues? YES _____? NO _____?
23. How many public hearings did you hold in 1978-79 _____?
24. Does the board of education use citizen advisory committees? YES _____? NO _____?
25. How many citizen advisory committees did the board of education use since July 1, 1972 _____?

That's it! It was a lot. It will help answer some important questions. Your help is appreciated.

NOTE

Additional data such as operational millage rate change, enrollment change, assessment test scores change, percentage of minority student change, will be collected by analyzing Michigan Department of Education publications and records.

AGAIN, THANK YOU.

APPENDIX C
LETTER OF DATA RECOMMENDATION
TOM NICOL



EUGENE T. PASLOV
Interim Superintendent
of Public Instruction

STATE OF MICHIGAN

DEPARTMENT OF EDUCATION

January 8, 1980

STATE BOARD OF EDUCATION
BARBARA ROBERTS MASON
President
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Governor
WILLIAM G. MILLIKEN
Ex-Officio

Mr. Paul Williams, Supt.
Caledonia Community Schools
203 Main Street
Caledonia, Michigan 49136

Dear Paul,

Several weeks ago, you expressed an interest in using some Michigan Educational Assessment Program data as a part of your dissertation research. In your request, you indicated that you would like to make use of the MEAP data from the two years 1972/73 and 1978/79.

As I indicated to you on the phone, the 1978/79 MEAP data is readily available and arrangements are being made to provide you with the information that you asked for. However, there are two problems with the 1972/73 MEAP data that cause me to suggest that you consider using the 1974/75 MEAP data instead. First, the MEAP data for 1972/73 and 1973/74 are not, at this time, readily available in a machine readable form.

Second, and perhaps most important reason that I suggest using the 1974/75 MEAP data is that the test given in the earlier years was substantially different than that used in 1978/79. Therefore, it would be very difficult to make comparisons and inferences based upon MEAP data if you used scores from the years prior to 1974/75.

It is my recommendation that, for the purpose of your dissertation, the most appropriate MEAP data to use are those taken from the years 1974/75 and 1978/79. Please let me know how you wish to proceed.

Sincerely,

Tom Nicol

TN/db



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