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The Relationship of School Enrollment Size with Academic Achievement in Secondary Schools

Randy B. Steinkamp

Eastern Illinois University

This research is a product of the graduate program in Elementary and Junior High School Education at Eastern Illinois University. Find out more about the program.

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The Relationship of School Enrollment Size with Academic Achievement in Secondary Schools

(TITLE)

BY

THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF Master of Science in Education

IN THE GRADUATE SCHOOL, EASTERN ILLINOIS UNIVERSITY
CHARLESTON, ILLINOIS

1989 YEAR

I HEREBY RECOMMEND THIS THESIS BE ACCEPTED AS FULFILLING THIS PART OF THE GRADUATE DEGREE CITED ABOVE

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ADVISER

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DEPARTMENT HEAD
THE RELATIONSHIP OF SCHOOL ENROLLMENT SIZE WITH ACADEMIC ACHIEVEMENT IN SECONDARY SCHOOLS

THESIS

by

Randy B. Steinkamp

Submitted in Partial Fulfillment of the Requirements for the Degree Master of Science in Education

DEPARTMENT OF ELEMENTARY AND JUNIOR HIGH EDUCATION
COLLEGE OF EDUCATION, EASTERN ILLINOIS UNIVERSITY
CHARLESTON, ILLINOIS
1989
ABSTRACT

THE RELATIONSHIP OF SCHOOL ENROLLMENT SIZE
WITH
ACADEMIC ACHIEVEMENT IN SECONDARY SCHOOLS

by
Randy Steinkamp, M.S., Education
Eastern Illinois University, 1989
Dr. Marylin Lisowski, Advisor

This investigation was designed to examine the relationship between school enrollment size and academic achievement. Fourteen schools in the East-Central region of Illinois formed the focus of this study. The schools were grouped according to the number of enrolled students: small-size (less than 300); mid-size (300-799); and large-size (over 800). Data for the study were obtained from the 1987 School Report Cards. Report Cards are documents that were completed by schools in the state of Illinois to review the status of their educational programs.

Data from the Report Cards included measures of academic achievement and also descriptive data on the schools involved in the study. Academic achievement was defined as a composite of a student's progress in school as determined by graduation rates, achievement test scores, and core-curriculum enrollment rates. Low-income enrollment rates, pupil-teacher ratios, attendance rates, and per-
pupil expenditures were used to provide a descriptive profile of the schools involved in the study. Additional information regarding course offerings was obtained from school reports supplied by school administrators. Statistical analysis procedures were performed on these data and included frequency distributions and correlational analyses.

Overall, it was found that school characteristics differed in small-size, mid-size and large-size schools. It was also determined that the characteristics associated with small-size schools were significantly related to academic achievement ($p < .05$). The results of the study indicated that small-size schools facilitated for high levels of academic achievement.
DEDICATION

To my parents,
Herb and Marilyn Steinkamp
ACKNOWLEDGEMENTS

I wish to extend my sincere thanks to all those who supported me in this project. It has truly been the most rewarding endeavor of my educational experience.

I extend my heartfelt gratitude to:

Dr. Marylin Lisowski, my advisor, who taught me that commitment and excellence go hand in hand. As an advisor, she was continually available to assist me in my research, providing knowledge, experience and encouragement along the way. Her enthusiasm was contagious, and motivated me to strive for excellence.

Dr. John North, whose ability to combine a vast wealth of professional knowledge with a zest for life, serves as a role model for me. His encouragement and suggestions were extremely helpful, and his association with this project was more valuable than he will ever know.

Dr. Dale Downs, whose knowledge and expertise were vital for the completion of the project. His encouragement and sense of humor were greatly appreciated.

Don Starwalt, my cooperating teacher and friend, whose faith in my ability has given me the motivation to excel in my chosen endeavors.

The faculty and staff from the Education Department of Eastern Illinois University, and especially the other graduate assistants. Their friendship and support were both welcome and needed, and I will miss them a great deal.
Tamara Toler, my best friend, who has taught me that dreams and goals can be one and the same.

Finally, my family, for all their support and encouragement. Especially my parents, Herb and Marilyn, for understanding my need to pursue educational goals, and for instilling in me the confidence and motivation needed to achieve these goals.
The nature of schools has been questioned and debated. Are schools built for state legislators or for the students? This question needs to be answered in response to the issue of school district consolidation.

School district consolidation has become an accepted and expected practice in American education. The move towards school district consolidation stems primarily from the belief that large-size schools can offer more educational programs to their students and do so with more financial efficiency than small-size schools. Given this situation, students attending large-size schools have a distinct educational advantage, and should demonstrate higher academic achievement than students enrolled in small-size high schools.

Research that has been done in the area of academic achievement has yielded unclear results. Many studies indicated that large-size schools were in fact providing a more well-rounded education, and that students attending these schools were achieving at higher academic rates. Many of these studies did not include student background information, which is an extremely important predictor of intellectual growth. Also, these studies were remiss in assessing the possible social and emotional benefits associated with the small-size schools. More recent research refutes the contention that small schools cannot academically compete with large schools. Data reflect that
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small school size has a positive influence on student achievement and that small schools are competing favorably with, or academically outperforming their large school counterparts. Additional research is required to further examine the relationship between school enrollment size and academic achievement and to examine if small-size schools are able to meet the educational needs of their students.
STATEMENT OF THE PROBLEM

It was the intent of this study to obtain information on the relationship between school enrollment size and the academic achievement of students. The following questions formed the framework of the study.

1. What is the relationship between attendance rates and school enrollment size and are high attendance rates related to achievement test scores?
2. What is the relationship between pupil-teacher ratios and school enrollment size and are low pupil-teacher ratios related to achievement test scores?
3. Is the relationship between school enrollment size and achievement test scores?
4. Do small-size schools operate at a more economically efficient level than mid-size or large-size schools?
5. Do small-size schools facilitate for the attainment of high academic achievement?

HYPOTHESIS

Appropriate statistics were compiled for the acceptance or rejection of the following hypotheses.

1. High attendance rates are associated with small-size schools and are related to higher scores on
achievement tests.

2. Lower pupil-teacher ratios are associated with small-size schools and are related to higher scores on achievement tests.

3. Students from small-size schools will outperform students from mid-size and large-size schools on achievement tests.

4. Small-size schools operate at a more economically efficient level than mid-size and large-size schools.

5. Small-size schools will facilitate for the attainment of high academic achievement.
DEFINITION OF TERMS

Academic Achievement:
A component of student's progress in school as determined by graduation rates, achievement test scores, and core-curriculum enrollment rates.

Average Expenditures:
The average amount of money that schools spend on each individual student annually.

Core-Curriculum Enrollment:
Percentage of students who are receiving instruction in the areas of math, science, English, and social studies.

Course Offerings:
The type of educational courses that are provided in the subject areas of math, science, English, and social studies.

Graduate Completion Rate:
The percentage of students who completed their high school program.

High School:
School that enrolls students from the 9th through 12th grade.

Large-Size Schools:
High schools with an enrollment of over 900 students.

Low-Income Enrollment Rates:
The percentage of students attending school who are from economically disadvantaged homes.

Mid-Size Schools:
High schools with an enrollment between 300 and 799 students.

Pupil-Teacher Ratios:
The amount of students that would be in a given
classroom if the students would be distributed evenly throughout the school.

School Climate:
The type of learning environment of an individual school that can be either beneficial or harmful to a student's academic progress.

School Enrollment Size:
The number of students enrolled in a given high school.

School Report Cards:
Documents that are used to review the status of a school's academic programs.

Small-Size Schools:
High schools with an enrollment of under 300 students.
ASSUMPTIONS

The following assumptions underlie this study:

1. That achievement test scores, core-curriculum enrollment rates, and graduation rates were valid and reliable indicators of academic achievement.
2. That the enrollment rates selected were representative of small-sized, mid-sized, and large-sized high schools.
3. That the data that have been collected were accurate, and reflected the status of the program.
4. That student attendance rates were indicators of student satisfaction.
5. That data collected on pupil-teacher ratios were indicative of actual teacher/student interaction and not reflective of itinerary personnel.

DELIMITATIONS

The delimitations of this study were as follow:

1. The participating schools were high schools in the East-Central region of Illinois.
2. The assessment of achievement were based on three variables which include: graduation rates, achievement
3. Achievement tests were administered only on tenth
grade students in the participating schools.
4. Data were obtained from State of Illinois Report Cards
and from reports supplied by school administrators.

LIMITATIONS

The limitations of this study include:

1. The use of a specific region which prevents
generalizations of the results to other regions.
2. The use of specific grade levels which prevents
generalizations of the results to other grade levels.
3. The use of only three indicators of academic
achievement prevent generalizations of the results to
other factors that may also be indicative of academic
achievement.

OVERVIEW

The thesis includes five chapters.

Chapter One provides: a rationale for the study;
problem statements; hypotheses; definitions; assumptions;
delimitations; and limitations.
Chapter Two contains a review of the literature and is reported in three sections. These focus on achievement test scores, curricular and extracurricular programming, and collegiate academic success.

Chapter Three consists of the research design and procedures. They address the areas of: design; population; instrumentation; data collection procedures; and statistical analysis.

Chapter Four reviews the study's results. Three sections are reported and include: descriptive statistics; correlations; and hypotheses testing.

Chapter Five contains a summary, conclusions, and recommendations.
CHAPTER II

REVIEW OF THE LITERATURE

This literature review will examine the relationship between school enrollment size and academic achievement. Literature will be presented related to three dimensions of academic achievement: achievement test scores; curricular and extracurricular programming; and collegiate academic success. Specific areas within this broad framework that were pertinent to the nature and intent of this study were closely examined. These included: studies that controlled for factors related to academic achievement; studies which investigated student involvement in and satisfaction with school programming; and studies that focused on the grade point averages of college students.

ACHIEVEMENT TEST SCORES

Achievement test scores are important in any discussion involving academic achievement because of their frequent use by educational experts. These tests have been noted and serve as predictors of academic achievement. However, it is important that the results of achievement tests be analyzed with close scrutiny. Early studies involving the relationship between school enrollment size and academic achievement did not take into account other factors (socioeconomic status, I.Q.) that have been supported as being reasonable predictors of academic achievement.
This review includes samples of studies which focused on achievement test scores, while controlling for other factors which may also be associated with academic achievement. Summaries of the studies are presented in chronological order.

Kiesling (1970) examined the effects of high school size on student achievement tests, holding a measure of I.Q., school inputs, and socioeconomic status of students constant. The schools in his study ranged from 200 to 4,000 students. The results of the study indicated that there were no significant differences in the achievement test scores when other factors that could influence the scores were controlled.

By linking environmental conditions and school structures to the reading and mathematics achievement test scores of students from Colorado high schools, Bidwell and Kasarda (1975) examined determinants of organizational effectiveness. The environmental conditions were school size, fiscal resources, and student’s socio-economic levels. The measures of school structure were pupil-teacher ratios, administrative intensity, and the ratio of professional staff to teachers. The results of the study indicated that school size had very little effect on the achievement test scores, but that lower pupil-teacher ratios, which are usually found in small-size high schools, were associated with higher scores on the achievement tests.

Kimble (1976) designed a study to analyze whether or
not school size was related to student achievement. Stanford Achievement Test scores from Montana high school students (n=47,045) were analyzed to examine the relationship between school enrollment size and academic achievement. Four groupings for school size were established and included: small-size (less than 260); mid-size (260-1040); and large-size (greater than 1041). The results of the study indicated that there were no significant differences in the mean test scores of small-size, mid-size or large-size schools.

The Comprehensive Test of Basic Skills was used by Martellaro and Edington (1983) to examine the relationship between school enrollment size and academic achievement. The effect of school size in New Mexico schools (n=566) was examined by relating students’ scores on the achievement test with the enrollment size of the student’s high school. The results of the study indicated that school enrollment size is not related to academic achievement when corrections have been made for measures of I.Q. and socioeconomic status.

Ebert (1984) examined the impact of school size on the educational process. Ebert used data from school districts nationwide (n=300) to identify factors that differed significantly between small and large schools. He found that there were fewer differences among student and community background characteristics than among factors over which policy-makers have greater control. These factors included teacher and principal characteristics, school
climate, and types of school personnel per student. The effect of these differences on achievement test scores is not large comparing a small-size school to a mid-size school, but was substantial going from a mid-size school to a large-size school, more than a quarter of the average gain in annual student achievement.

Sinha (1986) conducted a study in which he compared the number of courses offered by a school to the school’s performance on the Scholastic Aptitude Test. Counselors from the high schools involved in the study (n=150) were asked to indicate the number of courses that were offered by the school in the areas of: advanced placement; English; mathematics; science; social studies; foreign language; arts and humanities; health; and vocational. The results of the study indicated that the number of course offerings did not bear a statistically significant relationship with scores on the Scholastic Aptitude Test.

Walberg and Fowler (1988) conducted a comparison study that examined the relationship between student achievement and school enrollment size. New Jersey schools (n=500) participated in the study in which student achievement test scores were compared to school enrollment figures. Walberg and Fowler found that, on the average, schools with smaller enrollments scored higher on the achievement tests than would be predicted by their socioeconomic level. Large schools, on the other hand, scored lower than would be predicted by their socioeconomic level. When socioeconomic background and school spending were taken into account, the
achievement test scores of the students from the smaller schools were higher than their large school counterparts.

It can be derived from these studies that students from small-size high schools are competing favorably with students from large-size high schools in regard to their scores on achievement tests. These studies suggest that when variables, such as socioeconomic status, are taken into account, students from small-size high schools can be expected to score equally with or above the students from mid-size or large-size high schools. Although scores on achievement tests are not conclusive evidence for the relationship between school enrollment size and academic achievement, these studies nevertheless show that small-size schools are meeting the educational needs of their students as measured by standardized testing.

**CURRICULAR AND EXTRACURRICULAR PROGRAMMING**

One of the primary goals of education has always been that schools continually try to meet all of the educational needs of the individual child. Because of this, the child should be considered first and foremost in any discussion of school organization. Proponents of school district consolidation believe that larger schools have a distinct advantage in their potential to meet the educational needs of the child. This belief is fostered on the idea that students will receive a more "well-rounded" education in large school settings due to the increased number of course offerings and extracurricular activities that are available.
to the student. This section will review studies that have examined the relationship between school enrollment size and curricular and extracurricular activities. Studies dealing with the percentage of student participation, and student satisfaction derived from participation will provide the primary focus.

Barker and Gump (1964) examined Kansas high schools (n=218) for purposes of investigating the relationship between school size and academic programs. They found that although the largest school in the study had 65 times as many students as the smallest school, it offered only twice as many academic activities. In respect to participation and satisfaction derived from these activities, they observed that students attending small-size schools participated and held responsible and important positions within a wider variety of activities than did students attending large-size high schools.

A nationwide sample of students (n=21,371) were used in a study by Baird (1969) to examine the relationship of high school size and student participation. Data from the Nonacademic Achievement Scales checklist of the American College Testing Program Composite were used to assess the relationship between school enrollment size and participation in the areas of leadership, music, drama, speech, art, writing, and science. The results of the study indicated that students from small-size high schools participated to a greater extent than did students from large-size high schools in the specified areas.
Michigan high schools (n=63) were used by Kleinert (1969) in his study of the effects of school size on student extra-curricular participation. Seven classifications of student activities were used in the study and included: music; athletics; student government; drama; publications; clubs; and service committees. Names and numbers of students who participated in each component of each school’s activity program were used as the basis for analysis. The results of the study indicated that in the large schools studied, an average of only 32 students per hundred participated in one or more activities; whereas 76 per hundred did in the small schools, and 49 per hundred did in the medium-sized schools.

In a study by Lindsay (1979), data were collected from the National Longitudinal Study of the High School Class of 1972. Data were analyzed to examine the effect of high school size on student participation in extracurricular activities, satisfaction, and attendance. Schools were grouped into three categories on the basis of the number of students enrolled in the senior class: small (100 or less in the senior class); medium (101-400 in the senior class); and large (more than 400 in the senior class). Student participation rates were examined in athletics, drama, music, debating, journalism, and student government. The satisfaction derived from school was measured in two ways: the extent to which the student thought the coursework was beneficial to them and the extent to which the student felt a part of the school. The results of the study indicated
that students from small-size high schools had higher daily attendance rates, were more involved in extra-curricular activities, and derived more satisfaction from these activities than did students from large-size high schools.

The effect of school size on student participation was also the basis of a study by Morgan and Alwin (1980). Washington high school students (n=9109) were asked to respond to questionnaires which identified the number of activities in which they participated. These questionnaires were analyzed in relation to school enrollment size; schools with enrollments under 400 being considered small-size high schools. The results of the study indicated that increased size had strong negative effects on rates of student participation.

Schmidt (1981) looked at data from high schools (n=725) nationwide to examine the relationship between quantity of schooling and academic achievement. The quantity of schooling refers to the actual amount of school time devoted to a particular curricular area. Schmidt found that quantity of schooling had a positive effect on academic achievement. Schmidt went further to examine the relationship between school size and quantity of schooling in different curricular areas. In this study, schools with enrollments under 300 were considered small, schools with enrollments between 300 and 600 were considered medium-sized, and schools with enrollments over 600 were considered large. The results of this study indicated that the number of hours taught in the core-curriculum areas of science,
social studies, and English decreased as the size of the school increased.

Differences in the science curriculum of Illinois schools (n=719) were studied by Hamilton (1984). Data were obtained from the document, "1982 Illinois Secondary School Offerings: Special Report on Science." The differences in the number of courses offered, and in the percentages of students enrolled in each course formed the basis of the study. School enrollment size was arranged at six levels: 1-199; 200-499; 500-999; 1000-1699; 1700-2599; and over 2600. To measure the differences in number of courses offered, Hamilton examined the total number of courses offered by all schools within that enrollment size. The results of the study indicated that schools with an enrollment between 500 and 1000 had the highest number of total course offerings. In terms of the percentage of students enrolled in science classes, the two schools with the lowest enrollments had the highest percentage of students enrolled in science classes, while the schools with the most course offerings had the lowest percentage of students enrolled in science classes.

Edington and Gardener (1984) introduced a study to examine the relationship between school enrollment size and student attitudes. Participants were selected from various sized high schools (n=132) and were given questionnaires designed to obtain their attitudes toward their schools and themselves. The results of the study showed that students from small-size high schools had more positive attitudes
toward their schools and themselves than students from larger schools.

The results of these studies are indicative of the complexities of student achievement. Are variety and number of courses a guarantee of educational fulfillment? Are large-size schools able to provide a more "well-rounded" education simply because of their ability to offer a larger number of curricular and extracurricular programs? The studies reviewed indicated that they are not. These studies revealed that a larger percentage of students from small-size schools participated in school activities and that they derived more enjoyment from these activities than did students from large-size high schools.

COLLEGIATE ACADEMIC SUCCESS

Another way to analyze whether or not a high school is achieving at its desired level is to examine the futures of the students from the high school. This section reports of studies that focused on the relationship between school enrollment size and later academic success at the collegiate level. If high schools are facilitating for high academic achievement, a large percentage of their students are anticipated to continue their education, and are expected to attain a high degree of academic success.

Charles (1949) examined a group of students (n=300) who attended the University of Nebraska over a four year period. All of the students in the study were in the top 25% of
their high school graduating classes in terms of overall grade point average. The overall achievement levels at college were measured by the following: grade point averages; total number of hours completed; and the number of representations on honor lists. The top 50 students from the original group were then ranked in accordance with their academic achievement at college. It was found that 33 out of the top 50 students were from high schools with less than 50 in their graduating classes.

A comparison study conducted by Bertrand (1956) examined high school enrollment size as it was related to academic success at the collegiate level. The academic achievement levels of Texas A&M students (n=637) were analyzed by several methods which included: high school grades; American Council on Education Psychological Examination test scores; achievement test scores; grade point averages in English, science, and agricultural classes; and overall grade point average after a two year period. The results of the study indicated that students from high schools with enrollments under 300 scored higher in all areas, with the exception of average grade point average in English classes.

In a study by Hoyt (1956), Kansas State University freshmen (n=1000) were randomly sampled to examine the relationship between high school enrollment size and later academic success at the college level. Hoyt used test scores from the American Council on Education Psychological Examination to predict the participants' potential for
college work. He found no significant differences in the test scores of students from the various size high schools. To examine academic achievement at college, Hoyt used the overall grade point averages of the subjects after a two year period. The results of the study showed that students from schools of less than 300 students had the highest overall grade point average.

In a study by Raymond (1968), West Virginia University freshmen (n=5000) were randomly sampled to examine the relationship between high school enrollment size and later academic success at the college level. Raymond used overall scores on the American Testing Program to predict the participants' potential for college work. He found no significant differences in the test scores of students from various sized high schools. To examine academic achievement at college, overall grade point averages of the participants were analyzed after a one year period. The data were controlled for a variety of financial, organizational, and social class variables. The results of the study indicated that school enrollment size was unrelated to freshman academic performance.

Sher and Tompkins (1975) examined Vermont high schools (n=10) that had the highest percentage of their graduates attend public universities. They found that six of the schools had enrollments under 300, three of the schools had enrollments between 300 and 900, and only one school had enrollment over 900. They also found that small-size schools had the lower operating costs per pupil than either
the mid-size or large-size schools in the study.

In a study by Downey (1975), Kansas State University freshman (n=400) were randomly sampled to examine the relationship between high school enrollment size and later academic success at the college level. To examine academic achievement at college, Downey used the overall grade point averages of the subjects after a two year period. The results of the study showed that students from mid-size high schools had the lowest grade point averages, although there were really no significant differences in the grade point averages of the students from the various sized high schools.

Although many of the studies reviewed in this section are not recent, they do provide evidence for those who believe students from small-size schools are not educationally disadvantaged when they are taken out of their familiar surroundings. These studies reveal that a higher percentage of students from small-size schools continue their education, and that they outperform students from large-size schools at the collegiate level.

The preceding literature substantiates the need for further research. It can be derived from the findings that complete agreement regarding school enrollment size and its effects on academic achievement does not exist. The research indicates that many other factors, such as socioeconomic status are much better predictors of academic achievement than school enrollment size. It has been shown that when these factors are controlled for, small-size
schools surpass large school counterparts. In order to understand the relationship between school enrollment size and academic achievement, additional research needs to be done beyond the capabilities of the present data.
CHAPTER III

RESEARCH DESIGN AND PROCEDURES

This chapter will examine design, population, and instrumentation as it applies to this study.

DESIGN

A descriptive, correlational study was conducted to examine the relationship between school enrollment size and academic achievement. Data were obtained from the 1987 School Report Cards on 14 schools in the East-Central region of Illinois. Data from the report cards included measures of academic achievement and information on the schools involved in the study. Academic achievement was defined as a composite of a student’s progress in school as determined by graduation rates, achievement test scores, and core-curriculum enrollment rates. Low-income enrollment rates, pupil-teacher ratios, attendance rates and per-pupil expenditures were used to provide a descriptive profile of the schools involved in the study. Additional information regarding course offerings was obtained from school reports supplied by school administrators. These data also were analyzed to assess the relationship between school enrollment size and academic achievement.

POPULATION

Populations under investigation in this study consisted of high schools (n=14) in the East-Central region of Illinois. The high schools involved in the study had enrollment sizes ranging from 85 to 1,230 students. Three
enrollment groupings for school size were established on the basis of the number of students enrolled in that school: small-size (less than 300); mid-size (300-799); and large-size (over 800). Data obtained on the individual schools were analyzed to assess the relationship between school enrollment size and academic achievement.

INSTRUMENTATION

Data on schools and the academic achievement of their students were obtained from the 1987 School Report Cards. Report Cards are documents that are completed annually by schools in the state of Illinois to review the status of their educational programs. Information derived from the 1987 Report Card included measures of academic achievement and information about the schools involved in the study. Academic achievement was defined as a composite of a student’s progress in school as determined by graduation rates, achievement test scores, and core-curriculum enrollment rates. Background information about the schools in the study included: course offerings; per-pupil expenditures; low-income enrollment rates; pupil-teacher ratios; and attendance rates. Frequency analysis was performed to examine differences between school enrollment size and school characteristics. Correlations were made to ascertain the relationship of these characteristics and of school size with academic achievement.

DATA COLLECTION PROCEDURES
Data collection procedures are discussed in the two general categories of academic achievement and school characteristics.

**ACADEMIC ACHIEVEMENT**

The academic achievement of fourteen schools in the East-Central region of Illinois was analyzed by using data obtained from School Report Cards. Three measures of academic achievement were used and included: graduation rates; achievement test scores; and core-curriculum enrollment rates. English, math, science, and social studies were used as the subject areas of the core-curriculum. Achievement test scores were taken from national standardized tests. The measures of academic achievement; graduation rates, achievement test scores, and core-curriculum enrollment rates were examined to ascertain if relationships existed with them and enrollment size.

**SCHOOL CHARACTERISTICS**

Information obtained from School Report Cards was used to examine whether or not school characteristics differed in small-size, mid-size, and large-size schools. Six aspects of schools were examined in the study and included: school enrollment size; per-pupil expenditures; low-income enrollment rates; pupil-teacher ratios; attendance rates; and course offerings. Correlations were made to ascertain the relationship of these characteristics and of school size with academic achievement.

**STATISTICAL ANALYSIS**
Statistical analysis procedures were conducted at the computing facilities of Eastern Illinois University. Data obtained from the 1987 School Report Cards involving school characteristics and academic achievement were subjected to selected programs contained within the Statistical Package for the Social Sciences (SPSSX). These included frequency distributions and correlational analyses.

Frequencies were obtained for school characteristics and then were entered for correlational analysis with measures of academic achievement. Achievement levels of the various-sized high schools were compared by obtaining frequencies for school enrollment size and academic achievement. Correlations were made to examine if a relationship existed between low-income enrollment rates with overall achievement levels. Results of the statistical analysis are presented in Chapter 4.
CHAPTER IV
RESULTS

There are three sections in this chapter. The first section presents frequencies of school characteristics for the purpose of comparing aspects of small-size, mid-size, and large-size schools. The second section shows the results of correlational analyses. The third section includes a review related to the tests of the stated hypothesis.

DESCRIPTIVE STATISTICS

Data from school report cards were used to obtain information on selected characteristics of schools in the East-Central region of Illinois. Means and/or percentages related to background characteristics are provided in Tables 1 through 8.

Background Characteristics

Information obtained on school enrollment size, average expenditures, low-income enrollment rates, pupil-teacher ratios, attendance rates, and course offerings examined differences between school enrollment size and school characteristics. These differences are critical in the examination of school enrollment size and its potential relationship with academic achievement. Characteristics of the schools involved in the study can be found in Tables 1
through 8.

Table 1 presents the enrollment sizes of the schools involved in the study. Three enrollment groupings for school size were established on the basis of the number of students enrolled in that school: small-size (less than 300); mid-size (300-799); and large-size (over 800). This shows that the majority of schools in the East-Central region of Illinois are small-size schools.

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>M</th>
<th>MD</th>
<th>M</th>
<th>R</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small-Size</td>
<td>8</td>
<td>142</td>
<td>121</td>
<td>85</td>
<td>203</td>
<td>66</td>
</tr>
<tr>
<td>Mid-Size</td>
<td>3</td>
<td>372</td>
<td>350</td>
<td>338</td>
<td>90</td>
<td>49</td>
</tr>
<tr>
<td>Large-Size</td>
<td>3</td>
<td>969</td>
<td>939</td>
<td>937</td>
<td>396</td>
<td>226</td>
</tr>
</tbody>
</table>

Table 1

Table 1 indicates that mid-size schools had lower average expenditures than did small-size and large-size high schools. This illustrates that increasing enrollment is no guarantee of lower average expenditures per student. Also, a large range of average expenditures was shown in small-size schools indicating that the individual schools themselves need to be examined when investigating school's economic efficiency.
Table 2

<table>
<thead>
<tr>
<th>Size</th>
<th>n</th>
<th>X</th>
<th>MD</th>
<th>M</th>
<th>R</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small-Size</td>
<td>8</td>
<td>$3,188</td>
<td>$3,145</td>
<td>$2,771</td>
<td>$1,516</td>
<td>488</td>
</tr>
<tr>
<td>Mid-Size</td>
<td>3</td>
<td>$2,763</td>
<td>$2,653</td>
<td>$2,560</td>
<td>$317</td>
<td>176</td>
</tr>
<tr>
<td>Large-Size</td>
<td>3</td>
<td>$2,937</td>
<td>$2,930</td>
<td>$2,718</td>
<td>$445</td>
<td>223</td>
</tr>
</tbody>
</table>

n= Number of Schools  
X= Mean  
MD= Median  
M= Mode  
R= Range  
SD= Standard Deviation

Table 3 describes the percentages of students who are from low-income families. These findings indicate that a higher percentage of students from low-income families attended small-size schools. Research suggests that a strong positive relationship exists between high socio-economic status and academic achievement, however this is not the case in mid-Illinois schools.
Table 3

<table>
<thead>
<tr>
<th>Size</th>
<th>n</th>
<th>X</th>
<th>MD</th>
<th>M</th>
<th>R</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small-Size</td>
<td>8</td>
<td>16.3%</td>
<td>14.5%</td>
<td>7.7%</td>
<td>19.9%</td>
<td>78</td>
</tr>
<tr>
<td>Mid-Size</td>
<td>3</td>
<td>13.1%</td>
<td>12.9%</td>
<td>9.7%</td>
<td>6.9%</td>
<td>35</td>
</tr>
<tr>
<td>Large-Size</td>
<td>3</td>
<td>8.3%</td>
<td>8.9%</td>
<td>6.8%</td>
<td>2.5%</td>
<td>13</td>
</tr>
</tbody>
</table>

**n=** Number of Schools  
**X=** Mean  
**MD=** Median  
**M=** Mode  
**R=** Range  
**SD=** Standard Deviation

Table 4 reports that small-size schools had higher attendance rates than either mid-size or large-size schools. Higher attendance rates can be associated with greater student satisfaction and greater educational opportunity.

Table 4

<table>
<thead>
<tr>
<th>Size</th>
<th>n</th>
<th>X</th>
<th>MD</th>
<th>M</th>
<th>R</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small-Size</td>
<td>8</td>
<td>94.9%</td>
<td>95.0%</td>
<td>93.3%</td>
<td>29%</td>
<td>11</td>
</tr>
<tr>
<td>Mid-Size</td>
<td>3</td>
<td>93.6%</td>
<td>93.5%</td>
<td>92.4%</td>
<td>24%</td>
<td>12</td>
</tr>
<tr>
<td>Large-Size</td>
<td>3</td>
<td>94.1%</td>
<td>93.9%</td>
<td>93.7%</td>
<td>11%</td>
<td>49</td>
</tr>
</tbody>
</table>

**n=** Number of Schools  
**X=** Mean  
**MD=** Median  
**M=** Mode  
**R=** Range  
**SD=** Standard Deviation
Table 5 indicates that small-size schools had lower pupil-teacher ratios than mid-size or large-size schools. Research suggests that lower pupil-teacher ratios may be associated with greater student satisfaction and higher academic achievement.

Table 5

<table>
<thead>
<tr>
<th>PUPIL-TEACHER RATIOS</th>
<th>n</th>
<th>X</th>
<th>MD</th>
<th>M</th>
<th>R</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small-Size</td>
<td>8</td>
<td>11:1</td>
<td>10:1</td>
<td>8:1</td>
<td>7:1</td>
<td>21</td>
</tr>
<tr>
<td>Mid-Size</td>
<td>3</td>
<td>16:1</td>
<td>15:1</td>
<td>15:1</td>
<td>4:1</td>
<td>21</td>
</tr>
<tr>
<td>Large-Size</td>
<td>3</td>
<td>18:1</td>
<td>18:1</td>
<td>17:1</td>
<td>1:1</td>
<td>7</td>
</tr>
</tbody>
</table>

n= Number of Schools
X= Mean
MD= Median
M= Mode
R= Range
SD= Standard Deviation

Table 6 shows the mean number of course offerings in the core-curriculum subject areas in small-size, mid-size, and large-size schools. These findings show that large-size schools offer a larger number of courses in all of the core-curriculum subject areas, especially in the subject areas of English and social studies. These findings provide evidence for those who contend that small-size schools are hindered by their lack of course variety.
Table 6

**COURSE OFFERINGS**

<table>
<thead>
<tr>
<th></th>
<th>Small-Size</th>
<th>Mid-Size</th>
<th>Large-Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>6</td>
<td>10</td>
<td>18</td>
</tr>
<tr>
<td>Math</td>
<td>6</td>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>Science</td>
<td>5</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Social Studies</td>
<td>6</td>
<td>6</td>
<td>14</td>
</tr>
</tbody>
</table>

Table 7 shows the mean scores of school characteristics in small-size, mid-size, and large-size schools. The mean scores were chosen so that comparisons could be made between small-size, mid-size, and large-size schools. Variables of school characteristics included: attendance rates; pupil-teacher ratios; per-pupil expenditures; and low-income enrollment rates. Small-size schools had higher attendance rates and lower pupil-teacher ratios than mid-size or large-size schools. These factors are used as indicators of student satisfaction. Small-size schools also had a higher percentage of students from low-income families, which has also been shown to have adverse effects on academic achievement. Finally, mid-size schools had the lowest per-pupil expenditures; thereby disputing the contention that large-size schools provide for greater economic efficiency.
Table 7

SCHOOL ENROLLMENT SIZE AND SCHOOL CHARACTERISTICS

<table>
<thead>
<tr>
<th></th>
<th>AR</th>
<th>PT</th>
<th>AE</th>
<th>LI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small-Size</td>
<td>94.9%</td>
<td>11.3:1</td>
<td>$3,188</td>
<td>16.3%</td>
</tr>
<tr>
<td>Mid-Size</td>
<td>93.5%</td>
<td>16.1:1</td>
<td>$2,763</td>
<td>13.0%</td>
</tr>
<tr>
<td>Large-Size</td>
<td>94.1%</td>
<td>17.8:1</td>
<td>$2,937</td>
<td>8.3%</td>
</tr>
</tbody>
</table>

AR= Attendance Rates
PT= Pupil-Teacher Ratios
AE= Average Expenditures/Student
LI= Low-Income Enrollment Rates

Table 8 provides data for school enrollment size and academic achievement. Three variables of academic achievement were chosen for comparison. These included: graduation rates; core-curriculum enrollment rates; and achievement test scores. Social studies, English, math, and science were used as the subject areas of core-curriculum. Scores from achievement tests were based on the results of national standardized tests and included mean scores of the lower quarter percentile. These scores were used on the assumption that schools with the smallest percentage of students in the lowest percentile were actually performing at higher academic levels. The results show that large-size schools had the largest percentage of students in the lowest quarter percentile for all academic areas and had the lowest average graduation rates as well.
Table 8  
SCHOOL ENROLLMENT SIZE AND ACADEMIC ACHIEVEMENT  
(Percentages)

<table>
<thead>
<tr>
<th></th>
<th>GR</th>
<th>ME</th>
<th>ML</th>
<th>SE</th>
<th>SL</th>
<th>EE</th>
<th>RL</th>
<th>VL</th>
<th>HE</th>
<th>HL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small-Size</td>
<td>92</td>
<td>68</td>
<td>22</td>
<td>57</td>
<td>11</td>
<td>91</td>
<td>18</td>
<td>17</td>
<td>70</td>
<td>12</td>
</tr>
<tr>
<td>Mid-Size</td>
<td>99</td>
<td>82</td>
<td>17</td>
<td>67</td>
<td>18</td>
<td>87</td>
<td>20</td>
<td>22</td>
<td>65</td>
<td>14</td>
</tr>
<tr>
<td>Large-Size</td>
<td>87</td>
<td>75</td>
<td>24</td>
<td>52</td>
<td>21</td>
<td>104*</td>
<td>24</td>
<td>**</td>
<td>75</td>
<td>25</td>
</tr>
</tbody>
</table>

GR= Graduation Rate  
ME= Math Enrollment Rate  
ML= Math Achievement Test Lowest 25%  
SE= Science Enrollment Rate  
SL= Science Achievement Test Lowest 25%  
EE= English Enrollment Rate  
RL= Reading Achievement Test Lowest 25%  
VL= Vocabulary Achievement Test Lowest 25%  
HE= Social Studies Enrollment Rate  
HL= Social Studies Achievement Test Lowest 25%

* Some students were enrolled in more than one English class.  
** scores not available
CORRELATIONAL FINDINGS

This section of the results is comprised of tables and summaries for the correlational analyses. Findings relating to the relationships of: academic achievement with school characteristics; achievement test scores with core-curriculum enrollment rates; and achievement test scores with low-income enrollment rates are provided in Tables 9-11.

ACADEMIC ACHIEVEMENT WITH SCHOOL CHARACTERISTICS

Data from the State of Illinois School Report Cards were entered into analysis to examine whether or not relationships existed between academic achievement and school characteristics. Academic achievement was defined as a composite of a student's progress in school as determined by graduation rates, core-curriculum enrollment rates, and achievement test scores. School characteristics included: attendance rates; pupil-teacher ratios; low-income enrollment rates; and per-pupil expenditures. Research has indicated that these variables have an impact on academic achievement (Bidwell and Kasarda, 1975; Martellaro and Edington, 1983; Walberg and Fowler, 1988). Table 9 examines the relationship between academic achievement and school characteristics in small-size schools. Positive correlations existed between attendance rates and the percentage of students in the top quarter percentile on math and science achievement tests. This indicates that high attendance rates are associated with achievement test scores
of students from small-size schools in the subject areas of math and science.

Table 9

ACADEMIC ACHIEVEMENT WITH SCHOOL ENROLLMENT SIZE

<table>
<thead>
<tr>
<th>Attendance Rates</th>
<th>Pupil-Teacher Ratios</th>
<th>Per-Pupil Costs</th>
<th>Low-Income Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>GR</td>
<td>.0803</td>
<td>-.3297</td>
<td>-.6178</td>
</tr>
<tr>
<td>ME</td>
<td>.0849</td>
<td>-.2725</td>
<td>-.0379</td>
</tr>
<tr>
<td>MF</td>
<td>.8397**</td>
<td>.1958</td>
<td>-.3217</td>
</tr>
<tr>
<td>ML</td>
<td>-.5537</td>
<td>-.3548</td>
<td>.8185</td>
</tr>
<tr>
<td>SE</td>
<td>.0653</td>
<td>-.5024</td>
<td>.3172</td>
</tr>
<tr>
<td>SF</td>
<td>.7463*</td>
<td>-.1285</td>
<td>-.5595</td>
</tr>
<tr>
<td>SL</td>
<td>.4494</td>
<td>.2396</td>
<td>-.5847</td>
</tr>
<tr>
<td>EE</td>
<td>.1860</td>
<td>-.0381</td>
<td>.0033</td>
</tr>
<tr>
<td>RF</td>
<td>-.6166</td>
<td>-.0337</td>
<td>.1988</td>
</tr>
<tr>
<td>RL</td>
<td>-.1438</td>
<td>.2347</td>
<td>.4753</td>
</tr>
<tr>
<td>VF</td>
<td>-.2360</td>
<td>-.0014</td>
<td>.3396</td>
</tr>
<tr>
<td>VL</td>
<td>-.4873</td>
<td>.0096</td>
<td>.5374</td>
</tr>
<tr>
<td>HE</td>
<td>.2954</td>
<td>.1579</td>
<td>.1121</td>
</tr>
<tr>
<td>HF</td>
<td>.1361</td>
<td>-.1089</td>
<td>-.4100</td>
</tr>
<tr>
<td>HL</td>
<td>.5137</td>
<td>.03096</td>
<td>.4489</td>
</tr>
</tbody>
</table>

* p < 0.05  
** p < 0.01  
*** p < 0.001

GR= Graduation Rate  
ME= Math Enrollment Rate  
MF= Math Achievement Test Top 25%  
ML= Math Achievement Test Lowest 25%  
SE= Science Enrollment Rate  
SF= Science Achievement Test Top 25%  
SL= Science Achievement Test Lowest 25%  
EE= English Enrollment Rate  
RF= Reading Achievement Test Top 25%  
RL= Reading Achievement Test Lowest 25%  
VF= Vocabulary Achievement Test Top 25%  
VL= Vocabulary Achievement Test Lowest 25%  
HE= Social Studies Enrollment Rate  
HF= Social Studies Achievement Test Top 25%  
HL= Social Studies Achievement Test Lowest 25%
To understand relationships between variables of academic achievement, correlational analysis was completed on core-curriculum enrollment rates with achievement test scores. Core-curriculum enrollment rates were defined as the number of students enrolled in the subject areas of math, science, English, and social studies. Achievement test scores were taken from standardized tests and included figures to show the average number of students in the top and lowest quarter percentiles. Proponents of consolidation believe that large-size schools are able to offer a larger variety of classes within each core-curricular area; thus providing their students with a more well-rounded education. Small-size school proponents counter that the quality of the instruction is more important than the quantity of classes. This test was completed to examine whether or not a relationship existed between core-curriculum enrollment rates and achievement test scores in small-size schools. The results of this test are shown in Table 10. No relationship existed between core-curriculum enrollment rates and achievement test scores in small-size schools. This suggests that the quality of instruction could be more important than quantity, and that students from small-size schools are not educationally disadvantaged due to lower amounts of curricular programming.
Table 10

**ACHIEVEMENT SCORES WITH CORE-CURRICULUM ENROLLMENT RATES**

Small-Size Schools

<table>
<thead>
<tr>
<th></th>
<th>ME</th>
<th>SE</th>
<th>EE</th>
<th>HE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top 25%</td>
<td>.161</td>
<td>.289</td>
<td>-.098</td>
<td>.222</td>
</tr>
<tr>
<td>4th 25%</td>
<td>.104</td>
<td>-.487</td>
<td>.249</td>
<td>-.279</td>
</tr>
</tbody>
</table>

* p < 0.05  
** p < 0.01  
*** p < 0.001

EE= English Enrollment Rates  
ME= Math Enrollment Rates  
SE= Science Enrollment Rates  
HE= Social Studies Enrollment Rates

**ACHIEVEMENT TEST SCORES WITH LOW-INCOME ENROLLMENT RATES**

Data from the State of Illinois School Report Cards were used in the correlation of achievement test scores with low-income enrollment rates in small-size schools. Research has indicated that low-income enrollment rates are predictors of academic achievement (Kiesling, 1970). Achievement test scores were based on the results of standardized achievement tests and included figures of the mean scores in the top and lower quarter percentiles. Table 11 examines the relationship between achievement test scores and low-income enrollment rates in small-size schools. No relationship was found between achievement test scores and low-income enrollment rates in small-size schools. This indicates that low-income enrollment rates did not effect the achievement test scores of students from small-size schools.
**Table 11**

**ACHIEVEMENT TEST SCORES WITH LOW-INCOME ENROLLMENT RATES**

Small-Size Schools

<table>
<thead>
<tr>
<th>Achievement Test Scores</th>
<th>Low-Income Enrollment Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math Ach. Test Top 25%</td>
<td>-.673</td>
</tr>
<tr>
<td>Math Ach. Test 4th 25%</td>
<td>.004</td>
</tr>
<tr>
<td>Science Ach. Test Top 25%</td>
<td>-.494</td>
</tr>
<tr>
<td>Science Ach. Test 4th 25%</td>
<td>-.317</td>
</tr>
<tr>
<td>English Achievement</td>
<td></td>
</tr>
<tr>
<td>Reading Ach. Test Top 25%</td>
<td>.679</td>
</tr>
<tr>
<td>Reading Ach. Test 4th 25%</td>
<td>-.369</td>
</tr>
<tr>
<td>Vocabulary Ach. Test Top 25%</td>
<td>-.145</td>
</tr>
<tr>
<td>Vocabulary Ach. Test 4th 25%</td>
<td>.020</td>
</tr>
<tr>
<td>Soc. Studies Ach. Test Top 25%</td>
<td>.088</td>
</tr>
<tr>
<td>Soc. Studies Ach. Test 4th 25%</td>
<td>-.389</td>
</tr>
</tbody>
</table>

* p < 0.05
** p < 0.01
*** p < 0.001
HYPOTHESIS

Data resulting from the analyses of the study were employed in the acceptance or rejection of the hypotheses. Statements follow for each of the hypothesis.

HYPOTHESIS ONE:

Hypothesis One: High attendance rates are associated with small-size schools and are related to scores on achievement tests.

Data from the State of Illinois School Report Cards were used to obtain information on school characteristics. The report cards contained information regarding school enrollment size and attendance rates. The small-size schools involved in the study had higher attendance rates than did the mid-size or large-size schools. Correlational analysis revealed that attendance rates were related to achievement test scores. Based on these results, hypothesis one was accepted.

HYPOTHESIS TWO

Hypothesis Two: Lower pupil-teacher ratios are associated with small-size schools and are related to scores on achievement tests.

Data from the State of Illinois School Report Cards
were used to obtain information regarding school characteristics. The Report Cards contained information regarding school enrollment size and pupil-teacher ratios. The small-size schools involved in the study had lower pupil-teacher ratios than did the mid-size or large-size schools. Correlational analysis revealed that pupil-teacher ratios were not related to achievement test scores in small-size or large-size schools. Based on these results, hypothesis two was rejected.

**HYPOTHESIS THREE**

Hypothesis Three: Students from small-size schools will outperform students from mid-size and large-size schools on achievement tests.

Data obtained from School Report Cards were used to examine the relationship between school enrollment size and scores on achievement tests. Scores from achievement tests were based on the results of national standardized tests and included mean scores of the lowest quarter percentile. These scores were used on the assumption that schools with the smallest percentage of students in the lowest quarter percentile were actually performing at higher academic levels. The results revealed that small-size schools had the smallest percentage of students in the lowest quarter percentile of achievement test scores in all curricular areas except for math. Based on these results, hypothesis three was accepted.
HYPOTHESIS FOUR

Hypothesis Four: Small-size schools operate at a more economically efficient level than mid-size or large-size schools.

Data from the State of Illinois Report Cards were used to compare the average expenditures per student of small-size, mid-size, and large-size schools. The results determined that the mid-size schools had the lowest average expenditure per student. Based on these results, hypothesis four was rejected.

HYPOTHESIS FIVE

Hypothesis Five: Small-size schools will facilitate for the attainment of high academic achievement.

Data from the State of Illinois Report Cards were used to examine the relationship between school enrollment size and academic achievement. Academic achievement was defined as a composite of a student’s progress in school as determined by graduation rates, achievement test scores, and core-curriculum enrollment rates. The results of the test indicated that small-size schools had graduation rates of over 92 percent, had a large percentage of students enrolled in core-curricular classes, and scored the highest on achievement tests. Based on these results, hypothesis five was accepted.
CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

In this chapter, a summary of the study is provided, conclusions are examined, and recommendations for further study and practice are made.

SUMMARY

This study was designed to examine the relationship between school enrollment size and academic achievement in 14 high schools in the East-Central region of Illinois.

Data on the schools and the academic achievement of their students were obtained from 1987 School Report Cards. Report Cards are documents that were completed by schools in the state of Illinois for purposes of revealing the status of the school’s academic programs for a specified year. Three measures of academic achievement were used for examination in this study. These included: graduation rates; achievement test scores; and core-curriculum enrollment rates. Low-income enrollment rates, pupil-teacher ratios, attendance rates, course offerings, and per-pupil expenditures were used to provide a descriptive profile on the schools involved in the study. Three enrollment groupings for school size were established on the basis of the number of students enrolled in that school: small-size (less than 300); mid-size (300-799);
and large-size (over 800). Frequency analysis was performed to examine differences between school enrollment size and school characteristics. Correlations were made to ascertain the relationship of school size with academic achievement. Frequencies were also obtained for school enrollment size and academic achievement to compare the achievement levels of schools from the three enrollment groupings.

Overall, it was found that school characteristics differ in small-size, mid-size, and large-size schools. It was also determined that many of the characteristics that are associated with small-size schools (high attendance rates, low pupil-teacher ratios) are significantly related to academic achievement. The results of the study provide support that small-size schools do provide a quality education, and call into question the practice of school district consolidation.

**MAJOR CONCLUSIONS**

The findings of this study allow the following conclusions to be drawn:

1. Students of small-size schools performed at higher levels on achievement tests than did students from mid-size or large-size schools.

2. Characteristics such as pupil-teacher ratios, attendance rates, course offerings, low-income
enrollment rates, and per-pupil expenditures differed in small-size, mid-size, and large-size schools.

3. Greater economic efficiency was not related to larger school enrollment size as measured by per-pupil expenditures.

4. Characteristics such as pupil-teacher ratios, low-income enrollment rates, per-pupil expenditures, and attendance rates were significantly related \( (p < .05) \) to measures of academic achievement in all enrollment groups.

**RECOMMENDATIONS FOR FURTHER RESEARCH**

Ideas developed in this study provide support for extending the examinations of the relationships between school enrollment size and academic achievement to include/and or be extended to:

1. Investigations of the relationships between school enrollment size and graduation completion rates at the collegiate level.

2. Longitudinal studies examining the relationship between school enrollment size and occupational success.

3. Investigations of the relationship between school enrollment size in the elementary grades and later academic success at the high school level.
4. Investigations of the relationship between school enrollment size and student involvement in extracurricular activities.

5. Investigations of the academic achievement levels of students after school district consolidation has taken place.

6. Investigations of the relationships between school enrollment size and the percentages of students who continue their education at an institute of higher learning.

7. Investigations of the relationships between extracurricular participation and academic achievement.

RECOMMENDATIONS FOR FURTHER PRACTICE

Supported by the concepts developed in this study, it is suggested that:

1. In consideration of education, the practice of school district consolidation be thoroughly studied.

2. Large-size schools attempt to employ many of the traits of the small-size schools in order for them to help meet the individual needs of the child such as lowering the pupil-teacher ratios.

3. Policy-makers consider the education of the child as the single most important factor in school organization.

4. State legislators consider providing increased funding
to small-size high schools.

5. Attempts be made to discover alternatives to school district consolidation for small-size high schools.
## APPENDIX A

### SCHOOL IDENTIFICATION AND ENROLLMENT

<table>
<thead>
<tr>
<th>Small-Size Schools</th>
<th>Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tower Hill</td>
<td>85</td>
</tr>
<tr>
<td>Kansas</td>
<td>93</td>
</tr>
<tr>
<td>Findlay</td>
<td>105</td>
</tr>
<tr>
<td>Windsor</td>
<td>117</td>
</tr>
<tr>
<td>Lovington</td>
<td>124</td>
</tr>
<tr>
<td>Oakland</td>
<td>142</td>
</tr>
<tr>
<td>Mowequa</td>
<td>178</td>
</tr>
<tr>
<td>Neoga</td>
<td>288</td>
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<table>
<thead>
<tr>
<th>Mid-Size Schools</th>
<th>Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Casey-Westfield</td>
<td>338</td>
</tr>
<tr>
<td>Cumberland</td>
<td>350</td>
</tr>
<tr>
<td>Shelbyville</td>
<td>428</td>
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<table>
<thead>
<tr>
<th>Large-Size Schools</th>
<th>Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paris</td>
<td>834</td>
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<tr>
<td>Charleston</td>
<td>842</td>
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<tr>
<td>Mattoon</td>
<td>1230</td>
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### APPENDIX B

#### VARIABLE IDENTIFICATION

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<tr>
<th>ID</th>
<th>IDENTIFICATION</th>
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<tbody>
<tr>
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<td>ENROLLMENT</td>
</tr>
<tr>
<td>AR</td>
<td>ATTENDANCE RATES</td>
</tr>
<tr>
<td>GR</td>
<td>GRADUATION RATES</td>
</tr>
<tr>
<td>RF</td>
<td>TOP 25% READING ACHIEVEMENT TESTS</td>
</tr>
<tr>
<td>RL</td>
<td>4th 25% READING ACHIEVEMENT TESTS</td>
</tr>
<tr>
<td>VF</td>
<td>TOP 25% VOCABULARY ACHIEVEMENT</td>
</tr>
<tr>
<td>VL</td>
<td>4th 25% VOCABULARY ACHIEVEMENT</td>
</tr>
<tr>
<td>MF</td>
<td>TOP 25% MATH ACHIEVEMENT TESTS</td>
</tr>
<tr>
<td>ML</td>
<td>4th 25% MATH ACHIEVEMENT TESTS</td>
</tr>
<tr>
<td>HF</td>
<td>TOP 25% SOCIAL STUDIES ACH. TESTS</td>
</tr>
<tr>
<td>HL</td>
<td>4th 25% SOCIAL STUDIES ACH. TESTS</td>
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<tr>
<td>SF</td>
<td>TOP 25% SCIENCE ACHIEVEMENT TESTS</td>
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<td>SL</td>
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<td>ME</td>
<td>MATH ENROLLMENT RATES</td>
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<tr>
<td>SE</td>
<td>SCIENCE ENROLLMENT RATES</td>
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<td>HE</td>
<td>SOCIAL STUDIES ENROLLMENT RATES</td>
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<td>LI</td>
<td>LOW-INCOME ENROLLMENT RATES</td>
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<td>AE</td>
<td>PER-PUPIL EXPENDITURE</td>
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<tr>
<td>PT</td>
<td>PUPIL-TEACHER RATIO</td>
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## APPENDIX C

### COURSE OFFERINGS

#### SMALL-SIZE SCHOOLS

##### Tower Hill Course Offerings

<table>
<thead>
<tr>
<th>English</th>
<th>Math</th>
</tr>
</thead>
<tbody>
<tr>
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<td>General Math</td>
</tr>
<tr>
<td>College Prep I</td>
<td>Algebra I</td>
</tr>
<tr>
<td>Basic English II</td>
<td>Algebra II</td>
</tr>
<tr>
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</tr>
<tr>
<td>Composition</td>
<td>Pre-Calculus</td>
</tr>
<tr>
<td>Literature</td>
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<tr>
<td>Term Paper</td>
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<table>
<thead>
<tr>
<th>Social Studies</th>
<th>Science</th>
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<tbody>
<tr>
<td>American History</td>
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<tr>
<td>World History</td>
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<tr>
<td>Geography</td>
<td>General Science</td>
</tr>
<tr>
<td>Psychology</td>
<td>Physics</td>
</tr>
<tr>
<td>Sociology</td>
<td>Chemistry</td>
</tr>
<tr>
<td>Social Problems</td>
<td>Lab. Science</td>
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##### Kansas Course Offerings

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<th>Math</th>
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</thead>
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<td>Consumer Math</td>
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<td>Analytic Geometry</td>
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<table>
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<tr>
<td>World History</td>
<td>Biology II</td>
</tr>
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<td>Sociology</td>
<td>General Science</td>
</tr>
<tr>
<td>Government</td>
<td>Chemistry</td>
</tr>
<tr>
<td></td>
<td>Physics</td>
</tr>
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##### Findlay Course Offerings

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<thead>
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<th>Math</th>
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</thead>
<tbody>
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<td>English II</td>
<td>Algebra I</td>
</tr>
<tr>
<td>Course</td>
<td>Windsor Course Offerings</td>
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<td>----------------------------------------------------------------</td>
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<tr>
<td></td>
<td>English III</td>
</tr>
<tr>
<td></td>
<td>English IV</td>
</tr>
<tr>
<td>Social Studies</td>
<td>American History</td>
</tr>
<tr>
<td></td>
<td>World History</td>
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<tr>
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<td>World History</td>
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<td></td>
<td>Civics</td>
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<td>Sociology</td>
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<td>Economics</td>
</tr>
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<td></td>
<td>Geography</td>
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<td>English I</td>
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<td></td>
<td>English II</td>
</tr>
<tr>
<td></td>
<td>English III</td>
</tr>
<tr>
<td></td>
<td>English IV</td>
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<td></td>
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<td>American History</td>
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<tr>
<td></td>
<td>Government</td>
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<tr>
<td></td>
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</table>
English I
English II
English III
English IV
Speech

Social Studies
American Problems
Economics
Civics
American History
World History
Geography
Constitution

Mowegua Course Offerings

English
English I
English II
English III
College Prep.

Social Studies
American History I
American History II
American Problems
World Civilization

Neoga Course Offerings

English
Usage and Composition
Intro to Literature
Developmental English
Public Speaking
Essay
Term Paper
Vocabulary Development
Media Study
Mythology
Bible Literature
Discussion and Debate
Shakespeare
Advanced Rhetoric

Math
Practical Math
Pre-Algebra
Algebra
Geometry
Algebra II
Trigonometry

Science
Biology I
Biology II
Chemistry
Physics

Math
Basic Math
Pre-Algebra
Algebra
Geometry
Advanced Algebra
Computer Progr.
College Prep.
Social Studies

World Affairs
Western Civilization
Sociology
Current Events
Illinois History
Government
Crime, Courts, and Punishment
American History I
American History II
Basic History
Investments and Money Management
Consumer Education

Science

Life Science
Physical Science
The Cell
Botany
Zoology
Env. Education
Human Physiology
Inorganic Chemistry
Physics
Advanced Botany
MID-SIZE SCHOOLS

Casey-Westfield Course Offerings

English
General English
English I
English II
English III
English IV
College Prep.
Speech-Communications

Social Studies
American History
World History
World Geography
Government
Sociology
Psychology

Shelbyville High School

English
English I (A & B)
English II (A & B)
English III (A & B)
English IV (Writing)
English IV (Speech)
Drama I
Drama II
Expository Writing
Speech

Social Studies
U.S. History
Economics
Government
Humanities
Sociology
World History

Math
General Math
Consumer Math
Pre-Algebra
Algebra I
Algebra II
Geometry
Trigonometry
Independent Study

Science
General Science
Earth Science
Biology
Botany
Zoology
Anatomy
Chemistry
Physics

Math
General Math
Intro. to Algebra
Algebra I
Algebra II
Advanced Math
Calculus
Computer Progr.

Science
Botany
Zoology
Intro. to Chemistry
Intro. to Physics
Chemistry
Physics
Advanced Biology
Advanced Chemistry
LARGE-SIZE SCHOOLS

Charleston Course Offerings

English
Communication Skills I & II
Practical Communication Skills I & II
Accelerated Communication Skills II
Literature and Composition I,II,III,IV
Practical Lit. and Comp. I,II,III,IV
Accelerated Lit. and Comp. I,II,IV
Journalism
Forensics
Writing and Research
Comparative Fiction
Rhetoric
Creative Writing
Drama
English Literature

Math
Practical Math
Pre-Algebra
Algebra I
Acc. Geometry
 Geometry
Acc. Algebra II
Int. Algebra II
Algebra II
Trigonometry
Calculus
Computer Math
Vocational Math

Social Studies
Physical Geography
Current World Issues
Civics
Practical Civics
Constitution Test
Modern European History
Practical European History
American History I & II
Practical American History
Accelerated American History
Oral History
Insights in Democracy
Sociology I & II
Personal Insights
Individual Research
Consumer Education
Junior and Senior World Issues

Paris Course Offerings

English
English I
English II
English III
English IV
Newspaper Production
Yearbook Publication
Business Communications

Math
General Math
Pre-Algebra
Algebra I
Algebra II
Geometry
Senior Math I & II
Adv. Computer Math
Calculus

Science
Inv. in Science
Biology I & II
Chemical Science
Physical Science
Environment Ecology
Astronomy
Chemistry I & II
Physics
<table>
<thead>
<tr>
<th><strong>American History</strong></th>
<th><strong>General Science</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>World History</strong></td>
<td><strong>Life Science</strong></td>
</tr>
<tr>
<td><strong>European History</strong></td>
<td><strong>Biology</strong></td>
</tr>
<tr>
<td><strong>Economy</strong></td>
<td><strong>Lab. Techniques</strong></td>
</tr>
<tr>
<td><strong>Sociology</strong></td>
<td><strong>Chemistry I</strong></td>
</tr>
<tr>
<td><strong>Current Events</strong></td>
<td><strong>Anatomy</strong></td>
</tr>
<tr>
<td><strong>Government</strong></td>
<td><strong>Physics</strong></td>
</tr>
<tr>
<td><strong>Psychology</strong></td>
<td><strong>Adv. Chemistry</strong></td>
</tr>
</tbody>
</table>

**Mattoon Course Offerings**

**English**
- English I,II,III,IV
- Practical English I,II,III,IV
- Accelerated English I,II,III,IV
- Newspaper Publication
- Yearbook Publication
- Creative Writing
- English Communications
- American Literature
- Term Paper
- Literature of the Future
- English Literature
- Grammar

**Math**
- General Math
- Fund. Alg. I & II
- Algebra I & II
- Adv. Algebra
- Fund. Geometry
- Geometry
- Computer Technology
- Acc. Geometry
- Business Math
- Calculator Math
- Trigonometry
- Calculus
- Math Analysis

**Social Studies**
- Social Science
- Geography
- Medieval History
- Modern World History
- Sociology
- Psychology I & II
- Government
- American History I & II
- Consumer Education
- Economics

**Science**
- Inter. Science
- Biology I & II
- Chemistry I & II
- Zoology
- Physics
About this Report Card

This is a report card that gives you information about your school. It allows you to compare the school to the other schools in your district and those in the rest of the state. The information in it was provided by your local school district.

The report card gives facts about students, student performance, instructional factors, and finance for your school and/or district for the 1987-88 school year. (Some financial information and the number of chronic truants are from 1988-87.) Much of the information and the manner in which it is reported is required by law. This same form is being used for all schools to keep the reports uniform. Where information is not shown, it does not apply to your school or is not available.

The facts contained in this third report can be compared to previous years' reports for this school and can serve as a base for future comparison. They can also be used with other local information to help identify areas of strength and areas needing improvement.

Elementary districts have grades pre-kindergarten through 8. High school districts have grades 9 through 12. Unit districts have grades pre-kindergarten through 12.

Your child's school is in a unit district.

The grades in your child's school are 9 10 11 12.

About the Students

Some characteristics used in this report describe differences among the students in the school. This information can be used to see how the students in your school differ from other students in the district or from those in the state as a whole. It can also be used to note how the student population in your school or district differs from those of similar size and type elsewhere. These student characteristics have an impact on the other information presented in this report card. Understanding them can help you determine how student performance, instruction, or finance information may be affected. It can also help to indicate what kinds of programs or services may be needed in your school.

This school report card has information showing the percent of student enrollment by race or ethnic background; the percent of students coming from homes with low family income; and the percent of those with limited-English proficiency.
The chronic truant information, appearing in this report for the first time, gives the number of students who were absent from school without valid cause for 10% or more of the last 180 school attendance days.

Student mobility indicates the portion of students entering or leaving the school during the school year. It is important to know this information because some students who were given achievement tests may have been enrolled in the school only a very short time and their achievement scores, which contribute to the overall level for the school, may have been affected by their moving from school to school.

For high schools, the distribution of seniors in college preparatory, general education, and vocational education programs is provided.
Percent of Students in the Four Quarters of Illinois Goal Assessment: Reading - Constructing Meaning

<table>
<thead>
<tr>
<th>Grade 3</th>
<th>Grade 6</th>
<th>Grade 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top</td>
<td>3rd</td>
<td>2nd Bottom</td>
</tr>
<tr>
<td>National Estimate</td>
<td>25%</td>
<td>25%</td>
</tr>
</tbody>
</table>

School

District

State

Percent of Students in the Four Quarters of Nationally Normed Achievement Tests

GRADE 3 Test Administered: Year Test was Normed:
Enrollment When Battery was Administered:

<table>
<thead>
<tr>
<th>Subject</th>
<th>School Percent</th>
<th>Subdistrict Percent</th>
<th>District Percent</th>
<th>% of Students Taking the Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Top</td>
<td>3rd</td>
<td>2nd Bottom</td>
<td>Top</td>
</tr>
<tr>
<td>Reading Comprehension</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>Mathematics</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Science</td>
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</tr>
<tr>
<td>Social Studies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

GRADE 6 Test Administered: Year Test was Normed:
Enrollment When Battery was Administered:

<table>
<thead>
<tr>
<th>Subject</th>
<th>School Percent</th>
<th>Subdistrict Percent</th>
<th>District Percent</th>
<th>% of Students Taking the Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Top</td>
<td>3rd</td>
<td>2nd Bottom</td>
<td>Top</td>
</tr>
<tr>
<td>Reading Comprehension</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>Mathematics</td>
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</tr>
<tr>
<td>Science</td>
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</tr>
<tr>
<td>Social Studies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In April 1988, the first state assessment in reading was given for grades 3, 6 and 8. About half of the schools will have scores between 225 and 285. The average score on this test is 250.
### Performance Characteristics (continued)

The American College Test (ACT), is taken by some high school students and measures various areas of study. The test tries to measure how well students will do in college. The scores given are average scores in each category.

#### ACT Scores for the High School Class of 1988

<table>
<thead>
<tr>
<th>School Test Takers</th>
<th>ACT Subscores</th>
<th>Natural Science</th>
<th>Math</th>
<th>English Composition</th>
<th>Reading</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>District 109</td>
<td>13.8</td>
<td>15.6</td>
<td>15.4</td>
<td>16.5</td>
<td>17.9</td>
<td>64.4</td>
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<tr>
<td>District 105</td>
<td>13.8</td>
<td>15.4</td>
<td>16.4</td>
<td>16.2</td>
<td>17.3</td>
<td>62.7</td>
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<tr>
<td>District 103</td>
<td>13.8</td>
<td>15.5</td>
<td>15.4</td>
<td>16.5</td>
<td>17.4</td>
<td>64.4</td>
</tr>
<tr>
<td>District 105</td>
<td>13.8</td>
<td>15.4</td>
<td>16.4</td>
<td>16.2</td>
<td>17.3</td>
<td>62.7</td>
</tr>
</tbody>
</table>

Percentiles are from a high of 99 down to a low of 1. The percentile tells you what percent of schools nationally scored below the score that is reported for your school. Compared to schools nationally with 40 or more students tested.

---

<table>
<thead>
<tr>
<th>Subject</th>
<th>Grade 6</th>
<th>Grade 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Science</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Enrollment When Battery was Administered:

**Grade 6 Test Administered:**

Year Test was Normed: 1985

<table>
<thead>
<tr>
<th>Subject</th>
<th>School Percent</th>
<th>Subdistrict Percent</th>
<th>District Percent</th>
<th>% of Students Taking the Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>25% 25% 25%</td>
<td>25% 25% 25%</td>
<td>25% 25% 25%</td>
<td>25%</td>
</tr>
<tr>
<td>Mathematics</td>
<td>25% 25% 25%</td>
<td>25% 25% 25%</td>
<td>25% 25% 25%</td>
<td>25%</td>
</tr>
<tr>
<td>Social Science</td>
<td>25% 25% 25%</td>
<td>25% 25% 25%</td>
<td>25% 25% 25%</td>
<td>25%</td>
</tr>
</tbody>
</table>

---

<table>
<thead>
<tr>
<th>Subject</th>
<th>Grade 10</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td></td>
<td>35.8 24.7 17.4 22.1</td>
</tr>
<tr>
<td>Vocabulary</td>
<td></td>
<td>35.8 24.7 17.4 22.1</td>
</tr>
<tr>
<td>Mathematics</td>
<td>36.4</td>
<td>38.4 23.2 19.5 18.9 89.5 99.5</td>
</tr>
<tr>
<td>Science</td>
<td>36.1</td>
<td>36.1 26.2 17.8 19.9 100.0 100.0</td>
</tr>
<tr>
<td>Social Science</td>
<td>36.8</td>
<td>36.8 23.7 16.9 20.5 86.5 89.5</td>
</tr>
</tbody>
</table>
### Performance Characteristics (continued)

<table>
<thead>
<tr>
<th>Elementary Students Not Promoted to Next Grade</th>
<th>School</th>
<th>Subdistrict</th>
<th>District</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>School</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>District</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State</td>
<td>90.1%</td>
<td>80.3%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### About the Instructional Setting

A number of factors in the schools have an impact on what or how students learn. Factors reported at the school level include average class size at various grades, the enrollment of students in various courses, and time spent on various subjects. Factors reported at the district level include teachers' experience and education, and pupil-teacher and pupil-administrator ratios. Reviewing these can help to give you an indication of the amount of time, staff, and other resources being used for instruction in this school and school district. The teachers' race or ethnic groups are also reported.

### Instructional Resources

<table>
<thead>
<tr>
<th>Average Class Size</th>
<th>School</th>
<th>Subdistrict</th>
<th>District</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kindergarten</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade 6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade 8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School Level</td>
<td>17.3</td>
<td>17.3</td>
<td>17.3</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>High School Enrollment* in</th>
<th>School</th>
<th>Subdistrict</th>
<th>District</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics</td>
<td>70.4%</td>
<td>70.4%</td>
<td>70.4%</td>
<td>70.4%</td>
</tr>
<tr>
<td>Science</td>
<td>52.4%</td>
<td>52.4%</td>
<td>52.4%</td>
<td>52.4%</td>
</tr>
<tr>
<td>English</td>
<td>97.6%</td>
<td>97.6%</td>
<td>97.6%</td>
<td>97.6%</td>
</tr>
<tr>
<td>Social Science</td>
<td>85.4%</td>
<td>85.4%</td>
<td>85.4%</td>
<td>85.4%</td>
</tr>
</tbody>
</table>

---

*May be greater than 100% since some students take more than one course in a subject area.
Financial Information (continued)

District Expenditure by Fund 1985-87

<table>
<thead>
<tr>
<th>Category</th>
<th>District</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>$8,027,550</td>
<td>$2,466,450</td>
</tr>
<tr>
<td>District</td>
<td>61.0%</td>
<td>78.7%</td>
</tr>
<tr>
<td>Transportation</td>
<td>$745,457</td>
<td>$2,030,043</td>
</tr>
<tr>
<td>District</td>
<td>5.6%</td>
<td>5.3%</td>
</tr>
<tr>
<td>Bond and Interest</td>
<td>$2,380,043</td>
<td>$4,389,979</td>
</tr>
<tr>
<td>District</td>
<td>15.4%</td>
<td>11.4%</td>
</tr>
<tr>
<td>Rent</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>District</td>
<td>0.0%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Municipal Retirement</td>
<td>$220,485</td>
<td>$250,000</td>
</tr>
<tr>
<td>District</td>
<td>1.7%</td>
<td>2.8%</td>
</tr>
<tr>
<td>Capital Improvement</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>District</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>State</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Site and Construction</td>
<td>$1,300,355</td>
<td>$1,500,000</td>
</tr>
<tr>
<td>District</td>
<td>9.9%</td>
<td>10.5%</td>
</tr>
<tr>
<td>State</td>
<td>3.2%</td>
<td>3.0%</td>
</tr>
<tr>
<td>Total Expenditures</td>
<td>$13,194,021</td>
<td>$13,498,669</td>
</tr>
</tbody>
</table>

This report card is required by state law and is designed to provide you with information to help you to better understand your school and school district. If you have questions regarding it or would like to know more about your school, please call the school office.

This report was designed and developed by the Illinois State Board of Education. In compliance with Public Act 84-126 passed by the 84th Illinois General Assembly.

Excellent Schools: The Illinois Advantage

About Your School District's Finances

This part of the report card provides general information on how money is used in your school district so you can compare it to the rest of the state and to districts of the same type and similar in size to your district. It includes average teacher and administrator salaries, the amount annually spent on each student for education, and also indicates how much your district charges to educate a student from another district (per capita tuition). In order to fully understand the average teachers' salary for your district, you should relate it to the average years of teaching experience for the teachers.

Information is given on how this district compares to districts of the same type (elementary, high school or unit districts) and size (small elementary districts, large unit districts, and so forth). For some characteristics, percentile ranks are given. A percentile rank of 45 means that 45% of the same type districts (such as, elementary districts), or similar size districts (such as, small elementary districts) were below this district for the given characteristic.

Financial Information

<table>
<thead>
<tr>
<th>Average for the Same Type</th>
<th>District</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher Salary $27,963</td>
<td>$29,757</td>
<td>$28,087</td>
</tr>
<tr>
<td>Admin. Salary $44,892</td>
<td>$47,674</td>
<td>$45,702</td>
</tr>
<tr>
<td>Operating Expend. Per Pupil $3,525</td>
<td>$4,008</td>
<td>$3,825</td>
</tr>
<tr>
<td>Per Capita Tuition $3,063</td>
<td>$3,413</td>
<td>$3,117</td>
</tr>
</tbody>
</table>

District expenditures show how the money is divided up by categories. All expenditure figures (shown on page 12) are from the 1986-87 school year, the most recent available.
BIBLIOGRAPHY


Schneider, B.L. America's small schools. (ERIC Document Reproduction Service No. ED 187 508).

Sinha, D.K. (1986). Relationship of graduation requirements and course offerings to scholastic aptitude test performance of seniors in high schools. Journal of
Educational Research, 80(1), 5-8.

