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ABSTRACT

A questionnaire responded to by 34 randomly selected Illincis school districts with high school enrollments under 500 provided information contradicting an Illinois State Board of Education report that cast doubt on the educational effectiveness of smaller schools. The questionnaire's first section sought information about each district's enrollment, operating expenses, tuition costs, salaries, numbers of 1985 graduates, and numbers of dropouts. Each district had one high school. Of the 34 schools, 11 had enrollments under 100, 11 had enrollments from 100 to 179, and 12 had enrollments from 180 to 484. Responses to the second part of the questionnaire concerned the curriculum and cocurricular activities. All schools surveyed exceeded state mandates in their course offerings. Twenty-three schools reported above average ACT Composite scores. The expenditures per student in the districts surveyed were below the state average, as were salaries. The students in smaller high schools, on the average, participate in many more extracurricular activities than do students from large high schools. The average dropout rate of the 34 schools was 2.4 percent, compared to a state average of 4.9 percent. The questionnaire's third part traced the activities of 1981 graduates, of whom 85.3 percent were employed or were continuing their education. (PGD)

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IS BIG BETTER? FACT OR FAD CONCERNING SCHOOL DISTRICT ORGANIZATION.

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FOR

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IS BIG BETTER? FACT OR FAD CONCERNING SCHOOL DISTRICT ORGANIZATION.

School district reorganization or consolidation has become one of the hottest issues legislatively in the 1980's. Many factors have contributed to this issue. First, the U.S. Department of Education has criticized the public school system. In 1981, Secretary of Education, Terrell H. Bell created the National Commission on Excellence in Education. The Commission was created as a result of the Secretary's concern about "the widespread public perception that something is seriously remiss in our educational system." On April 26, 1983 the Commission submitted their final report entitled A Nation at Risk:The Imperative For Educational Reform. Due to failures within the national education system, we were said to be "A Nation at Risk."

Secondly, governors across this great nation have called for educational reform. From California to Connecticut, from Maine to Texas, educational issues received top priority from legislators. Everyone wants or is demanding some kind of "accountability" from educational institutions -- especially from the public school system.

One concern of legislators, especially in Illinois, is the size of school districts. Thus, consolidation or reorganization of these smaller schools into larger ones has become a top priority for Illinois legislators. In fact, legislation was introduced that would reorganize school districts by size. Elementary districts (grades K to 8) would have to be at least 1,000 students, high school districts (grades 9 to 12) at least 500 students and unit districts (grades K to 12) at least 1,500 students. Fortunately, this legislation was defeated.

My presentation today will focus on the following: "Big is not necessarily better when it comes to school district size."

In 1970, William H. Clements in his paper, Ideal High School Size: A Mirage in the Desert. asks, "Is it mandatory that the American high school be a huge mixing chamber, into which all of the social ingredients must be poured so as to produce a uniform, pre-determined, synthesized graduate? Or is it better to educate adolescents within their home communities, where they will receive more individual attention, guidance, encouragement, and the moral standards of local citizens, including their parents?"

I would like to share with you, the results of research conducted by myself and three collegues during the 1985-86 school year. I have also included other research that substantiate our findings, or visa versa.

Concerning school size, the most recent emphasis (especially in Illinois) is being placed on that of high school size. Therefore, this presentation will be concerned about high school size. For reference, "small" is being used synonymously with schools under 500 students.

In May of 1985, the Illinois State Board of Education released a report entitled School District Organization in Illinois. In the Report Summary, it states "...that in the hundreds of very small high schools in Illinois, students are suffering a significant loss in opportunity to learn when the courses available to them are compared with those available to students in high schools with enrollments of over 500 pupils. Opportunities to take advanced mathematics, foreign languages, and even remedial courses are significantly lower in such small schools and are

widely available in schools enrolling up to 1000 students. Such lack of opportunity is particularly significant when one realizes that the results of achievement measures indicate significantly lower scores in smaller schools and analysis indicates that a student's achievement is directly related to the size of the high school he or she attends."

The implications of this statement is tremendous. First, it implies that students who attend schools with under 500 enrollment do not have the same opportunity to learn as those students who attend larger high schools. Secondly, it states that small schools do not educate students as well as larger schools because achievement test scores are significantly lower in smaller schools.

With this statement in mind, a questionnaire was developed and mailed to school districts having high school enrollments under 500. These schools were randomly selected from a list of Illinois Public Schools. Thirty-four (34) school districts (64%) responded to the questionnaire. The results of this study were printed in a report entitled Is School District Reorganization Necessary? A Study of 34 Small Illinois School Districts.(Rogers,Rigney,Mayer & Gray, 1986)

The questionnaire was divided into three parts. Part I was concerned with school district information such as 1) high school enrollment, 2) operating expense and tuition cost per pupil, 3) average teacher and administrative salary, 4) number of 1985 graduates, and 5) number of drop-outs.

Part II was related to the high school curriculum and co-curricular activities. Administrators were asked questions about 1) number of and length of periods in a school day, 2) the units of credit offered in regular,

special and vocational programs, 3) ACT and achievement test results, 4) percent of students enrolled in math, science, english and social science courses, 5) the percent of students considered as taking college prepatory, vocational education and general education curriculum, and 6) co-curricular activites programs.

Part III was concerned with the graduating class of 1981. Specifically, administrators were asked follow up questions concerning education and work careers of this class.

The purpose of our study was not to question the quality of education at large school districts, but to challenge the report published in May by the Illinois State Board of Education.

The enrollments of high schools participating in our study, ranged from 55 to 484. Three respondents were high school (9 - 12) districts. The remaining 31 were unit (K - 12) districts. We divided the schools into three groups. Group I were high schools with enrollments up to 99. Group II schools had enrollments from 100 to 179, and Group III high schools ranged from 180 to 484. There were 11 high schools in Groups I and II. Group III had 12 high schools.

Four criteria will be used to examine the school size theory of large versus small. Is big really better? The first criterion to be analized will be the curriculum. Does offering more courses make a school better? The second criterion to be used is the cost factor. Is the operating expenses per pupil less in larger districts? The third criterion to be used is co-curricular activities. Is participation in extra curricular activities important in a student's learning experience? The fourth and final criterion to be used is a look at high school graduates.

Are students from small schools successful in post high school education?

I. CURRICULUM

The Illinois State Board of Education in their report stated that educational opportunities were not available to students in small schools. The State Board concluded that smaller high schools did not offer enough of the so called "advanced courses" in the curriculum. After tabulating the information received from the participating 34 school districts, we found the opposite to be true.

All 34 schools in the study had course offerings that far exceeded the state mandates required of Illinois schools. Results showed that all 34 high schools offered at least 4 years of mathematics. Twenty-four schools offered 5 to 8 credits. One school offered 10 credits. (One credit is equal to one year.) All but one school offered 4 years of science and 20 schools offered more that 4 years. Some schools reported sending students to community colleges for more advanced level subjects.

We found little difference in the number of course offerings in the core areas of English, Mathematics, Science and Social Studies amoung the three groups of high schools mentioned. It did seem that Group III (high schools with 180 to 484 enrollment) offered more courses in the Vocational and Fine Arts areas.

Several questions concerning curricular offerings must answered,"Does offering more of a variety of courses insure a quality program?" "Does offering a larger curriculum mean students will learn more?" Research indicates that there is no empirical evidence that the presence of certain courses in high school curriculum makes a school either good or

bad. At any rate, the quality of the learning, not the structure of the class, is what is important. (Clemments 1970).

Some individuals claim that large schools offer a greater range of courses. Thus, students have greater flexibility in choosing courses of study. The author tends to agree with this statement. Although larger schools offer more varied courses, one study found that few students complete courses such as Algerbra I, Geography, French and Calculus. This study revealed that only 31% complete Algebra, 13% complete the first year of French and only about 16% finish geography.(USA Research, 1984)

Smaller schools are found to be more stringent in graduation requirements (Albrecht & Duea, 1983.) Our study in 1986 revealed that approximately 93% of the students in the 34 small schools were enrolled in an english class. About 65% of the students were enrolled in a math class.(Rogers, Rigney, Mayer & Gray, 1986)

Our report indicated that not only do small schools seem to offer adequate course offerings, they also offer more than adequate remedial help for the slower or marginal student who may be ignored in larger schools.

Schools were asked to report the average of their last five years ACT scores. Twenty-three (23) of the 34 schools reported a five year average higher than the 1984-85 ACT Composite score 18.6.

II. SCHOOL COST

Proponents of school consolidation advance the argument that consolidation will save money. Efficiency will

increase and per pupil costs, as well as operating tax rates will fall. The cost approach is popular because it can be used to appeal to taxpayers, especially those who have no children in school.(Clements, 1970)

There have been several studies utilizing school size and educational costs. Rosenberg (1970) concludes that per pupil expenditures in high schools with 90 to 259 students are very little more than in schools with 3 or 4 times as large and high schools of 400 students appear to be economicaly feasable. Another study by Sabulao and Hickrod (1970) concludes that the optimum district size in terms of per student operating expenditures was 750 students in elementary district (K to 8), 500 in a secondary (9 to 12), and 5,000 in a unit district (K to 12). The authors caution that these figures may pertain to Illinois school districts.

In our most recent study entitled, Is School District Reorganization in Illinois Necessary? A Follow up Study. (Rogers, Rigney & Mayer, 1987) we found that 29 small schools participating in the study to be more efficient, as evidenced by below average figures on operating expenses per pupil and per capita tuition charges. As a whole, school districts in the State of Illinois averaged spending $3,526.00 per student. The largest school district in Illinois, Chicago, spent $4,182.00 per student. The 29 school district in our survey averaged $2,994.79, some $531.00 below the state average.(These figures were for the 1985 school year.)

The same is true with teacher salaries, administrator salaries, and per capita tuition cost. The smaller districts, on the most part, spent less per student in these areas than the state average.

The Washington State Temporary Special Levy Commission (1971) observes that literature generally favors elementary schools in the 300 to 400 pupil range and that cost factors favors high schools in the 1,000 to 1,500 pupil range. The Commission concludes that there is no simple relationship between school size and quality, though it is generally agreed that very small schools cannot compete favorably with larger schools.

III. CO-CURRICULAR ACTIVITIES.

Educators are placing more of an emphasis on the importance of extra curricular activities and their relationship to student achievement. Students in smaller high schools on the average participate in several times as many activities as do students from larger high schools. (Barker and Gump, 1964) Another study in southern Michigan found a strong relationship between high school size and the number of leadership roles available to students. This means that the smaller the school, the richer the co-curriculum. (Kleinert, 1969)

Our study in 1986 found this to be true. One high school with 55 students had at least 99% of their student body participating in extra curricular activities. We found that as the high school size increased, a smaller percentage of the student body participated in activities. There are, however, exceptions to this. We discovered one school of 84 students with 46% not participating in student activities. Athletics was not included as a co-curricular activity. Our study did show that the smaller the high school, the higher the percentage of students were participating in athletics. As the schools became larger, the percentages of participation decrease.

The National Federation of State High School Associates

states that national surveys show that students who participate in high school activities are more likely to have a higher grade point average and far better attendance record. In fact, of students who drop out of school, a full 94% are those who did not join in some form of school activities. (The Call, December 12, 1985)

IV. HIGH SCHOOL GRADUATES.

The most acceptable criterion for evaluating high schools that has been used so far is success of high school graduates in college. A 1959 study at Wisconsin State University-Stevens Point showed that when grade point categories of large, medium-sized, and small high schools were distributed by high school size, the smallest high school had the advantage followed by medium-size school.

In 1956, Bertrand compared ACE test scores and grade point ratios of agricultural students in various school size categories. He found college performance poorest for students in the very small high schools. However, this group was far inferior in ability level, so the difference was probably not that of school size, but by factors inherent in the sampling process. (Clements, 1970)

Lathrop compared achievements and course patterns of students from large and small high schools attending Iowa State College. He concluded the size of high school has little effect on achievement at Iowa State College.

Regular school attendance is a necessary part of the learning process and is a key to obtaining a good education. Irregular attendance limits the learning process and reduces the ability to get a good job or earn a high school diploma.

The 34 schools had 5877 high school students.Of these, only 146 students dropped out of school. Nine (9) high schools did not have a student drop out. Seven (7) of the schools reported only 1 student leaving school. The average dropout rate of the 34 schools was 2.4%. The state wide average for Illinois was 4.9%.

Included in our study was 1,312 students who graduated from high school in 1981. Of these students, 1,120 either entered a college or university, joined the armed service, entered vocational training or the work force. Therefore, 85.3% of the graduates left high school employable, acceptable in the armed service and institutions of higher education. The study does not include those graduates who became "housewives" as employed. They are included in the 14.7% as not working, not in the service, or not going to school.

Twenty-eight (28) schools sent 176 graduates to a community college (two year school)and 117 finished their two years. Therefore, 66.4% of the students completed program requirements.

Of the 318 high school graduates who entered a four year college or university, 233 completed school and earned their degree. Thus, 73.2% of students entering a four year college graduated.

The results of the study show that students from small schools are accepted by institutions of higher learning. Also, results indicate that students from small schools have the ability to complete the desired training, degree, or program.

Another collegue and I surveyed 28 Illinois colleges or universities and fourteen Illinois community colleges to

determine the success of students from small high schools. Although the study is not finished, two comments from college registrars must be mentioned. Jan Devore, Associate Dean of Students, Coordinator of Orientation and Retention, Millikin University, Decatur, Illinois said, "We feel that, in general, high schools with graduating classes of under 100 are doing an adequate job of preparation for college." His comment is reinforced by Roy Twilley, Dean of Admissions and Records, Western Illinois University, Macomb, Illinois. He stated, "Some of our very best students come from small high schools, especially the private college-prep schools...Additionally, most of our truely underprepared freshman are from large, inter city schools. We feel that the quality of the curriculum, not school size, is the best indicator of first-year success of our freshman."(Rogers and Bale, 1987)

Despite this new information, schools are continuing to grow larger and larger. It is time to reconsider our educational objectives for the 21st Century concerning school district reorganization. Schools that are too large can be as great an obstacle to learning as a school that is too small.

Consolidation or school reorganization should not be made on the size criterion alone. To force school consolidation just to reduce the number of schools is a crime, an injustice to the educational community. Some reorganization is necessary because of finances. In many communities, citizens are unwilling to increase taxes for education. If consolidation creates a better learning atmosphere and produces a more improved school system, it should be considered.

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