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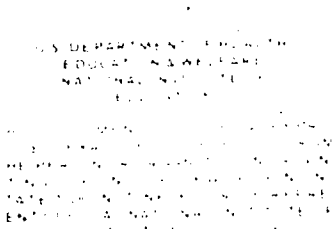
ABSTRACT

Declining enrollment in Minnesota schools is the subject of this collection of five case studies and one planning manual. The information in the manual and in the case studies of representative school districts is published together to provide persons interested in overall state policy with examples in enough detail to provide a sense of what is happening in districts differing in population and composition. The nature of the problems arising from declining enrollment suggests that the district level is the appropriate one for decision-making. Enrollment decline has brought about the demise of the expansive, innovative mood in Minnesota schools, as the case studies indicate. Program innovation is not as easily accepted, and school personnel are increasingly worried about job preservation. In some districts, the number of administrative personnel has been reduced to such a point that the time and energy for effective planning are no longer available. These materials were prepared for use by school superintendents and school boards for local school district planning. (Author)



STATE OF MINNESOTA

STATE PLANNING AGENCY
100 CAPITOL SQUARE BUILDING
550 CEDAR STREET
ST. PAUL, 55101

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It is now fairly common knowledge that population and enrollment changes are having and will have significant effects on Minnesota school districts. Translating the population data provided by the State Demographer into useful form is a new activity for state government. The State Planning Agency presents the attached material regarding declining enrollment as an example of that translation.

The planning manual and case studies are prepared for use by superintendents and school boards. The nature of decision making for schools suggest the school district level as the appropriate focus. This material also is intended to provide persons interested in over-all state policy examples in enough detail to gain a sense of what is happening in many school districts.

From the case studies and from reports of those who did the work, several generalizations can be drawn. First, the earlier expansive, innovative mood in the schools is giving way to pessimism and rigidity. This is being expressed in a lowering acceptance of curricular innovation, the lowering of planning horizons and doubt about the future. Job preservation is a growing and sometimes overriding concern of the staff.

At the same time that the school districts are facing new challenges and difficulties, the managerial capacity of school districts is being eroded. Reduction in administrative strength has kept pace with reduction of staff and students. In many medium and small school districts what is left is a single superintendent and one or two building principals. The ability to carve out time and talent for addressing the new planning and managerial tasks is difficult to find.

School districts of every size have faced the issues of declining enrollment and have responded creatively and with foresight. It seems clear that, after the initial shock of declining enrollment and its impact upon resources has been faced, there are responses which can preserve education programs, can aid in making needed changes and even can be used to re-establish ties between the community and its schools.

We wish to express our appreciation to those school superintendents who shared their experiences and made the manual and case studies possible. The State Department of Education and the Minnesota Association of School Administrators have provided guidance and support to the project and will be active in dissemination.

Sincerely,

Peter Vanderpoel

Peter Vanderpoel
Director

The Planning Assistance Manual and the associated Case Studies were partially financed by funds from the U. S. Department of Housing and Urban Development.

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INTRODUCTION

A large cartoon of a man slumped over in a chair sound asleep hangs on the wall at the office of a Minnesota school superintendent. His caption for the poster: "Long Range Planning!" Ten years ago, when most schools were still growing, it was exciting to think ahead. The future meant new programs, new buildings, new faces in the classroom. If plans and projections weren't quite on target, a growing system could adjust with a minimum of anxiety and trauma.

For the majority of Minnesota's school districts, those days are over. The reason? Enrollment decline. Here are some figures from projections made by the State Demographer in the Minnesota State Planning Agency.

- In 1980--only three years from now--the elementary age population will be less than the 1970 elementary age population in 86 of 87 Minnesota counties.
- The 1980 elementary age population will decline by 25 percent or more from 1970 level in 72 of 87 counties.
- The 1985 secondary age population will be less than the 1970 secondary age population in 78 of 87 counties.
- In 72 of 87 counties, the total school age population will be at least 15 percent less in 1985 than it was in 1970.
- In 1980, sixteen counties may have school age population less than 60 percent of the 1970 school age population.
- The total school age population in Minnesota is likely to decline by some 248,000 persons between 1970 and 1985.

The decline is several years old already. A report prepared by the State Department of Education says that nearly 11,000 fewer students were enrolled in Minnesota's public schools on October 1, 1974, than were

enrolled on that date in the previous year. From 1970 to 1974, the fall enrollment count for all public school students in grades one through twelve declined in 251 of 428 districts.

In general, between 1970-1974, elementary enrollment declined more than secondary because of the lower number of births in the early 1960's. At the elementary level, 360 districts registered a loss; only 131 districts showed an enrollment decline at the secondary level. The state's total enrollment decline of about 18,000 students between 1970-1974 was the combined result of a gain of 32,000 secondary students offset by a decline of nearly 50,000 students in the elementary grades. The decline in elementary age students will now move into the secondary grades, producing generally lower secondary enrollments for at least the next ten years.

As every superintendent knows, the most basic problem facing districts with declining enrollment is a financial one. The financial problems for Minnesota school districts will grow more acute as the decline moves into the secondary school level, because school districts receive 1.4 times more in state aid for secondary students than for elementary students.

Today, then, planning means thinking about decline--cutting budgets, reducing staff, closing buildings, and ending programs. But, when the man in the cartoon on the wall of the superintendent's office wakes up and watches the superintendent at work, he'll see that school districts require as much creative leadership and more skillful management than they did when they were growing. It is much harder to reduce staff than it is to hire new teachers. Fundamental values are at stake when a small town weighs the school system's contribution to community vitality against its growing inability to offer an adequate educational program. The issues may be different now from ten years ago, but they are every bit as compelling.

The goal of this manual is to stimulate planning for declining enrollment. It is written especially for school districts in Minnesota whose enrollments are likely to decline in the next few years. The idea is to help school administrators and school boards prepare--as far in advance as possible--for the tough decisions declining enrollment requires. Being prepared means knowing ahead of time if, when, and by how much enrollment will decline. It means collecting data and projecting what the school district will be like several years from now. What will the building and staffing needs be? What levels of income and expenditure can be anticipated? What alternatives does the district have? In other words, a good planning effort requires the development of "a data base." The superintendents who helped plan this manual agreed that projecting enrollments and budgets was a difficult--and sometimes risky--job. But they also agreed that a careful effort was well worth it.

The techniques for answering the questions above are not abstract or esoteric. Many superintendents--in both large and small districts--use them regularly. This manual is designed to make it easier to use these planning techniques by:

- compiling the techniques in one booklet;
- giving administrators a document with which to introduce board members and community advisory groups to the steps involved in planning for declining enrollment.

The manual emphasizes basic tools for collecting, organizing, and presenting information, since it is aimed, in part, at a layman's audience. Superintendents and boards who have already experienced several years of enrollment decline may need more complex planning approaches. The State Department of Education and the Minnesota Association of School Administrators will follow this manual with some "second-stage" planning strategies.

The manual is not aimed at the kind of comprehensive planning the Minnesota State Legislature had in mind when it passed the Planning, Evaluation and Reporting legislation in 1976. It does not tell how to go about setting general goals and objectives to guide district policy for years to come. Districts may find, however, that planning for enrollment decline provides a starting point for the activities mentioned in the "accountability bill."

Planning for declining enrollment will inevitably require school systems and communities to discuss educational goals and priorities. Which is more important--the athletic program or the foreign language program? How important is class size? Should alternative education programs be abandoned if they cost more than the traditional program? Or vice versa? The process may not be labeled "comprehensive planning", but decisions made during time of declining enrollment can influence the school program for years to come. School managers should encourage board members and parents to think of the long range consequences of their decisions. Budget and program reductions should not be made piecemeal, in response to crisis. Instead, the entire educational program should be reviewed to determine what constitutes a balanced set of learning experiences. Declining enrollment often reveals what the community really values in its schools.

A Tale of Two School Districts

Several Minnesota superintendents claimed--only half jokingly--that "good luck" determines how well a district adjusts to enrollment decline. Documented case studies of Minnesota school districts--prepared in Spring, 1976--suggest that relying on luck is not enough. Take Minnesota School Districts X and Y. Both serve towns of about 5000 people.

The public school enrollment in Minnesota School District X declined 26 percent between 1967 and 1975. Staff was reduced. School buildings were closed. In spite of enrollment decline and budget cuts, the school administrators and the community agree that learning opportunities have been maintained or even increased. Senior high school students have more electives to choose from. Reorganization has provided a better instructional program for sixth graders. An elementary individualized instructional program continues. The school buildings that remain open have been upgraded. District X's enrollment will continue to decline, but school officials feel able to cope with the future.

The enrollment in School District Y dropped 30 percent between 1967 and 1975. District Y has had a budget deficit for two years in a row. A tenured teacher who was laid off to save money took the district to court. And won. Some of the school buildings are half empty. Building maintenance has been delayed. No new programs have been introduced. Traditional program offerings may be cut back soon. The school system--and the community--do not know what lies ahead.

What made the difference between Districts X and Y? Certainly, there were factors beyond the control of either school system. The economy of each area differed; community tradition differed. But the readiness of the School Boards and the administrators to anticipate and plan for changes following the enrollment decline made a difference too. Planning helped District X know as early as 1971 that it should not replace staff members who left. So, the district has not had to lay off any teachers so far. Planning helped District X make better use of its buildings. Planning helped District X find better ways to enrich its program for smaller numbers of students.

Overview of Steps in Planning for Declining Enrollment

The planning processes of District X and of other districts which have dealt successfully with declining enrollment include several components in common for which school administrators have major responsibility. The following steps for planning incorporate these components.

1. Collect, analyze and interpret the data listed below regularly and systematically.

   - Five year enrollment projections by grade, and, in some cases, by school.
   - Five year income and expenditure forecasts.
   - Analysis of school plant facilities, including capacity, use and operating costs.
   - Analysis of staff, including size, distribution on salary schedule, anticipated retirements, and staff/student ratios.

2. Use this data to assess the problems facing the district and the magnitude of the financial and program adjustments required.

3. Present the assessment--and supporting data--first to the school board, then to teachers and teacher bargaining representatives.

4. Inform the community of the district's situation and alternative courses of action as early and as regularly as possible. This is especially important when a school closing or a referendum is being considered.

5. Offer the school board alternative approaches to making decisions. One Minnesota superintendent, for example, gave the board options ranging from hiring professional consultants to establishing a citizens' advisory committee to suggest alternative solutions.

6. Develop recommendations for balancing income and expenditures; state the administration's priorities.

7. Involve staff and community in setting priorities and making decisions--at a minimum through public hearings, at a maximum through participation in developing and recommending alternative solutions.

8. Use radio, T. V., and newspapers regularly to tell the district's story.

Because of the tremendous diversity in Minnesota districts and because each superintendent's administrative style is different, it is impossible to

specify one and only one right way of completing each of these steps. There are many ways, for example, of forecasting budgets. Therefore, this manual is illustrative, not definitive. Each district must modify the techniques and strategies to meet its district's special needs and circumstances.

Preparing the Manual

Over 25 Minnesota school superintendents from large and small, rural and urban districts contributed directly to this manual. In two all-day workshops, they shared their management techniques and their experiences in planning for declining enrollment. They offered information and recommendations which they thought would help other school administrators. They also suggested areas in which they felt the need for more help. There were many topics on which there was no agreement. What had "worked" in one district sometimes failed miserably in a neighboring district. Large school systems faced different problems from small districts. Superintendents with long tenure in office faced different problems from those new to the job. But when all the comments were compiled and analyzed, many common themes emerged. The manual is based on these common themes.

PROJECTING ENROLLMENT

Enrollment forecasts are the basic planning data for school districts. They are a prime indicator of future demand for educational services, programs, staff, and facilities.

The Minnesota superintendents who helped plan this manual agreed that five year enrollment forecasts are vitally important. They advised that enrollment forecasts must not only be accurately prepared; they must also "make sense." Participating superintendents recommended that enrollment projections be "run through a personal computer." This section includes items a superintendent can program into his "personal computer" as he examines enrollment forecasts, as well as specific instructions for projecting enrollment.

School Census

Although it is beyond the scope of this manual to discuss school census taking in detail, school administrators must be aware at enrollment projections of any sort are only as good as the basic census data. Coming up with the raw information to be used in projections is the most difficult and error-prone part of the job.

Evidence suggests that: 1) The count of preschool children is frequently inaccurate. For example, a district that relies on utility company hook-ups to get census data may miss turnover in apartment buildings where tenants do not pay their own utility bills. 2) Useful data that could be collected (such as age of head-of-household)--and that sometimes is collected--as part of the school census is not used to assess overall community trends that influence future enrollments.

Cohort Survival Technique - Summary and Advantages

The method most frequently used for forecasting enrollment is the cohort survival technique.[1] This method is essentially a linear projection based on historical trend data. The technique uses three tables (Figures 3, 4, and 5). The tables help tell the enrollment picture accurately for a district. Detailed instructions accompany the tables. Briefly, here is what the instructions say. First, from past records, find the number of births in the district for a particular year. Also, from past records, calculate the ratio between births and first grade enrollments. If families with small children have been moving away from the district or if many children attend private schools, the ratio between births in a given year and actual first grade enrollment six years later may be far less than 100 percent. If many families with small children are moving into the district, the ratio could be much greater than 100 percent.

Second, figure the district's cohort survival ratio. This ratio reflects the relationship between the number of children in one grade level in a certain year and the number of children in the next higher grade the next year. If, for example, 100 second graders were enrolled in the school in 1968 and 120 were in the third grade in 1969 (apparently new families moved in or there was a change in private school attendance), the cohort survival ratio between second and third grades for 1968 and 1969 is 1.2. Calculate the ratios between all grades for several years, determine most consistent ratios, and above all, be alert for trends.

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[1]The description of the technique, the tables, and the instructions provided in this section are adapted from an American School Board Journal article by Stanton Leggett (January, 1973) and from the Report of the Illinois Task Force on Declining Enrollments in the Public Schools (December, 1975).

It is possible to calculate future enrollments by knowing: 1) the number of births in past years; 2) the ratio between births and corresponding first grade enrollments; and, 3) the cohort survival ratios. Knowing the number of births in 1972, for example, and applying the first grade enrollment ratio to that number will yield an estimate of the number of first graders for the year 1978. Next, application of the most consistent cohort survival ratio will give the second grade enrollment for 1979, third grade enrollment for 1980, and so on. When an entire enrollment projection chart is completed, a district will be able to estimate--in a pure situation--its future enrollment. Figure 1 shows one Minnesota district's enrollment projections prepared according to the cohort survival technique.

FIGURE 1

EXAMPLE OF ENROLLMENT PROJECTIONS PREPARED ACCORDING TO COHORT SURVIVAL TECHNIQUE FOR A MINNESOTA SCHOOL DISTRICT--1974-75 THROUGH 1983-84

Year	K	Grades 1	2	3	4	5	6	1-6	Grades 7	8	9	Total 7-9	Grades 10	11	12	Total 10-12	Total K-12
1974-75	460	381	419	416	483	511	524	2,734	514	535	538	1,587	566	453	452	1,471	6,252
1975-76	450	418	383	440	423	480	506	2,650	556	514	551	1,621	568	519	422	1,509	6,230
1976-77	457	408	519	402	446	420	475	2,570	538	556	529	1,623	582	521	484	1,587	6,237
1977-78	424	415	410	440	407	444	416	2,532	505	537	572	1,614	558	533	486	1,577	6,147
1978-79	380	385	416	430	446	405	440	2,522	442	505	553	1,500	604	512	497	1,613	6,015
1979-80	354	345	386	437	436	444	401	2,449	467	442	519	1,428	584	554	477	1,615	5,846
1980-81	329	321	346	405	443	434	439	2,388	426	467	454	1,347	548	535	516	1,599	5,663
1981-82	306	299	322	363	411	441	429	2,265	467	426	480	1,373	480	503	499	1,482	5,426
1982-83	285	278	300	338	368	409	436	2,129	456	466	438	1,360	507	440	469	1,416	5,190
1983-84	285	259	279	315	343	366	404	1,966	464	456	480	1,400	463	465	410	1,338	4,989

The technique is sensitive to the gross effects of critical variables such as population migration, natural increase, non-public school impact, and drop-out effect. The composite effect of these variables are reflected in census and enrollment data for a given historical period. For this reason, the technique has an advantage over the simpler procedure of assuming that all students in the first grade in a given year will automatically "survive" to the sixth grade five years later.

Other Factors in Enrollment Projection

The "pure situation" which the cohort survival technique assumes hardly ever exists. Many variables influence future enrollments. They are the "input" which belongs in each superintendent's "personal computer."

The variables add up to a subjective "feel" for the population of the community and for the conditions that produced the set of numbers to be used in projections. For example, if there were a rapid turnover of housing units during the years on which the survival ratio is based--if younger couples replaced retirees--and if those younger families have now "settled in", the projections based on the data may be too high. The point--again--is to be alert for trends.

A simple grade by grade, year by year, display will assist the district in observing trends that may be expected to continue into the future. Two factors should be noted: What have successive kindergarten enrollments been and how does a particular kindergarten enrollment change each year.

The sample Enrollment Analysis Chart, Figure 2, displayed on page 12, presents a ten-year history of enrollment for grades K-12 in a Minnesota school district.

FIGURE 2

SAMPLE ENROLLMENT ANALYSIS CHART FROM A MINNESOTA SCHOOL DISTRICT 1963-1974

School Year	K	Grades 1	2	3	4	5	6	S*	Total 1-6	Grades 7	8	9	S*	Total 7-9	Grades 10	11	12	S*	Total 10-12	Total K-12
1963-64	346	269	215	218	230	234	236	53	1,455	308	292	319	24	943	348	369	304	73	1,094	5,838
1964-65	377	235	230	222	229	236	248	72	1,472	321	309	305	20	955	380	343	351	101	1,175	3,979
1965-66	421	262	238	246	229	304	247	76	1,602	355	359	355	16	1,085	367	366	324	—	1,057	4,165
1966-67	422	296	251	247	249	239	264	85	1,631	324	361	378	13	1,076	396	357	349	—	1,102	4,221
1967-68	483	308	321	276	283	279	277	88	1,832	397	358	464	15	1,234	449	399	353	9	1,210	4,759
1968-69	529	358	328	347	307	320	299	81	2,040	389	413	428	29	1,257	464	424	372	—	1,260	5,086
1969-70	517	401	381	356	384	339	350	80	2,291	394	398	465	30	1,287	420	445	401	--	1,266	5,361
1970-71	457	395	406	402	388	407	370	85	2,453	445	435	444	31	1,355	484	400	438	--	1,322	5,587
1971-72	441	447	486	487	469	454	481	79	2,903	490	460	468	31	1,449	500	432	375	--	1,307	6,100
1972-73	488	395	455	488	508	468	456	73	2,843	521	519	497	—	1,537	513	456	398	--	1,369	6,235
1973-74	424	418	397	465	502	517	472	51	2,822	536	523	536	--	1,595	494	485	428	--	1,407	6,248

* special

With the exception of 1972-73, kindergarten enrollments have dropped each year from the 1968-69 peak to 424 pupils in 1973-74. Declining kindergarten enrollments may indicate smaller elementary grade level enrollment in the future. This information can be more useful for some districts if the records are kept for each school as well as for the district as a whole. Some districts may have a declining student enrollment in one part of the district and an increasing enrollment in another.

Information about the age range of the population is also important. How many heads-of-households are beyond child-bearing age? How many are potential child-bearers? What percent of the housing units have no school age children? What percent of the housing units are occupied by the elderly and so may soon be sold to younger families? Can young families afford these houses? Enrollment forecasts must also be adjusted for changes in:

- nonpublic school programs and enrollment;

- dropout rates;

- population migration patterns--noting when families were first counted by the school census may help determine trends in population mobility;

- transportation patterns--new highway construction or higher energy costs;

- development of farm corporations--reduction in number of small farms;

- availability and cost of housing;

- residential building patterns or land use policy;

- employment opportunities.

Superintendents pointed out that changes in the factors listed above did not always influence enrollment in the expected direction. For example, one district assumed that a new factory would bring in new families; instead, the factory found enough employees among the existing unemployed or underemployed population. In another town, newly constructed apartment attracted single people and older couples instead of families. The town's population is increasing, but enrollment is declining. An administrator in a relatively affluent suburb doubts whether families with young childre will be able to afford the rapidly escalating prices of large homes in his district.

Administrators suggested that other community agencies could help provide information about the factors above; municipal officials, city planners, real estate developers, major employers, farm bureau officials, utility companies and many others can help school administrators interpret and modify enrollment projections.

Cohort Survival Technique - The Method

The directions (which will be explained in detail), are in four basic steps. ONE: Find the number of births in the district for each of the past ten years (Figure 3). TWO: Using that birth information, estimate first grade enrollments (Figure 3 again). THREE: Using the past enrollment figures, calculate cohort survival ratios on Figure 4. FOUR: Complete the table of enrollment projections for all grades (Figure 5).

Because kindergarten enrollment figures tend to fluctuate in most districts, use first grade enrollments as the base to calculate future enrollments (and then work back to kindergarten).

In most explanations of the cohort survival technique, including the one used here, first grade enrollment estimates begin with information about the number of births in a school district. However, forecasts may be more accurate if first grade enrollment estimates are based on the number of four-year-olds counted in the school census and if the cohort survival technique is applied to the preschool census (i.e., the ratio of one-year-olds to 0-year-olds, of two-year-olds to one-year-olds, etc.) as well as to actual enrollment by grade.

Here are the tables and detailed instructions for completing them.

FIGURE 3

DEVELOPING SURVIVAL RATIOS AND FIRST GRADE ENROLLMENT PROJECTIONS

Births		First Grade Enrollment			
Calendar Year (1)	Number of Resident Live Births (2)	School Year (3)	Fall Enrollment (4)	Survival Ratio Col. 4/Col. 2 (5)	
1965		1971-72			Actual
1966		1972-73			
1967		1973-74			
1968		1974-75			
1969		1975-76			
1970		1976-77			Projected
1971		1977-78			
1972		1978-79			
1973		1979-80			
1974		1980-81			
1975		1981-82			

INSTRUCTIONS FOR FIGURE 3

1. Column (2) - Fill in the number of resident live births for each year.
2. Column (4) - Fill in actual first grade enrollments for school years 1971-72 through 1975-76.
3. Column (5) - Fill in survival ratios for years 1971-72 through 1975-76. (Calculate ratios by dividing actual enrollments by resident live births.)
4. Column (5) - Find the average (mean) survival ratio for years 1971-72 through 1975-76 and enter it for years 1976-77 through 1981-82. (Use judgment in eliminating any atypical ratio before calculating the average.)[2]
5. Column (4) - Calculate the projected enrollments for years 1976-77 through 1981-82 by multiplying the number of resident live births by the corresponding survival ratio. Enter figures in column (4).

[2]In practice, most districts average three survival ratios (from four years of enrollment history) to calculate their mean survival ratios. A somewhat better way to determine the number of years to be included in the mean survival ratio is to select the combination of years which most accurately predicts current known enrollment. Projections will be in error if survival ratios are derived from an historical period which does not reflect current trends.

FIGURE 4

DEVELOPING AVERAGE RETENTION RATIOS

	Relationship of One Grade to Next Grade, Year Later		Retention Ratio*					Average Retention Ratio
			1971-72	1972-73	1973-74	1974-75	1975-76	
1	First	to Kindergarten (year earlier**)						
2	First	to Second						
3	Second	to Third						
4	Third	to Fourth						
5	Fourth	to Fifth						
6	Fifth	to Sixth						
7	Sixth	to Seventh						
8	Seventh	to Eighth						
9	Eighth	to Ninth						
10	Ninth	to Tenth						
11	Tenth	to Eleventh						
12	Eleventh	to Twelfth						

*Ratios should be figured for a five to ten year period. A ratio may be either greater or less than one.

**Kindergarten enrollments are calculated from first grade enrollments one year later.

INSTRUCTIONS FOR FIGURE 4

1. Divide the second grade enrollment in 1971-72 school year by the first grade enrollment in 1970-71 to obtain the retention ratio for grade two. Record the ratio in the 1971-72 column on line 2.

2. Using the same procedure as in step (1), figure the retention ratio between the first and second grades for each remaining school year. (Divide the second grade enrollment by the first grade enrollment in the preceding school year.) Record each ratio in the appropriate column on line 2.

3. Inspect and compare the commonality of the ratios to determine which are representative of present and future trends and which, if any, are atypical because of unusual local conditions. Generally, the more recent years tend to be more representative of the near future.

4. Calculate the average (mean) retention ratio for those years which appear to be representative of present and future trends by dividing the sum of the ratios of the number of representative years.

5. Record the average (mean) retention ratio from first to second grade in the last column on line 2.

6. Repeat steps (1) through (5) to obtain the average retention ratio from the second to the third grade and for each of the remaining grades in the table.

7. Divide the kindergarten enrollment for the 1970-71 school year by the first grade enrollment for 1971-72 to obtain the ratio of the first grade to kindergarten. Enter this ratio in the 1971-72 column. (Kindergarten enrollments tend to fluctuate in many districts.)

8. Figure and record the kindergarten ratios for each additional year by dividing the kindergarten enrollment by the first grade enrollment one year later.

9. Calculate and record the average (mean) kindergarten ratio ignoring those years of atypical ratios due to unusual conditions.

FIGURE 5

DEVELOPING ENROLLMENT PROJECTIONS FOR ALL GRADES

Grade	Average Retention Ratio	Enrollments by Year												
		Actual	Projected											
		1975-76	76-77	77-78	78-79	79-80	80-81	81-82	82-83	83-84	84-85	85-86	86-87	87-68
K														
1														
2														
3														
4														
5														
6														
7														
8														
Total														
9														
10														
11														
12														
Total														
Grand Total														

INSTRUCTIONS FOR FIGURE 5

1. For each grade enter the average retention ratios from Figure 4 in the average retention ratio column in Figure 5.

2. Using data from Figure 3, column 4, enter projected first grade enrollments for 1975-76 through 1981-82 school years. (Grade one enrollments serve as the base grade.)

3. Multiply the kindergarten average retention ratio times the first grade enrollment for 1976-77 and record the answer as kindergarten enrollment for the 1975-76 school year.

4. Continue to calculate the kindergarten enrollments through 1980-81 by multiplying the kindergarten average retention ratio times the projected first grade enrollment one year later and record the answers as kindergarten enrollment one year earlier.

5. Multiply the second grade average retention ratio times the first grade enrollment for the 1975-76 school year and record the answer as the projected second grade enrollment for 1976-77 school year.

6. Continue to calculate projected second grade enrollments by multiplying the second grade average retention ratio times the first grade enrollments for each succeeding school year and record the answers as second grade enrollment one year later.

7. Repeat the procedures in steps 5 and 6 to calculate projected enrollments for each grade level through grade twelve.

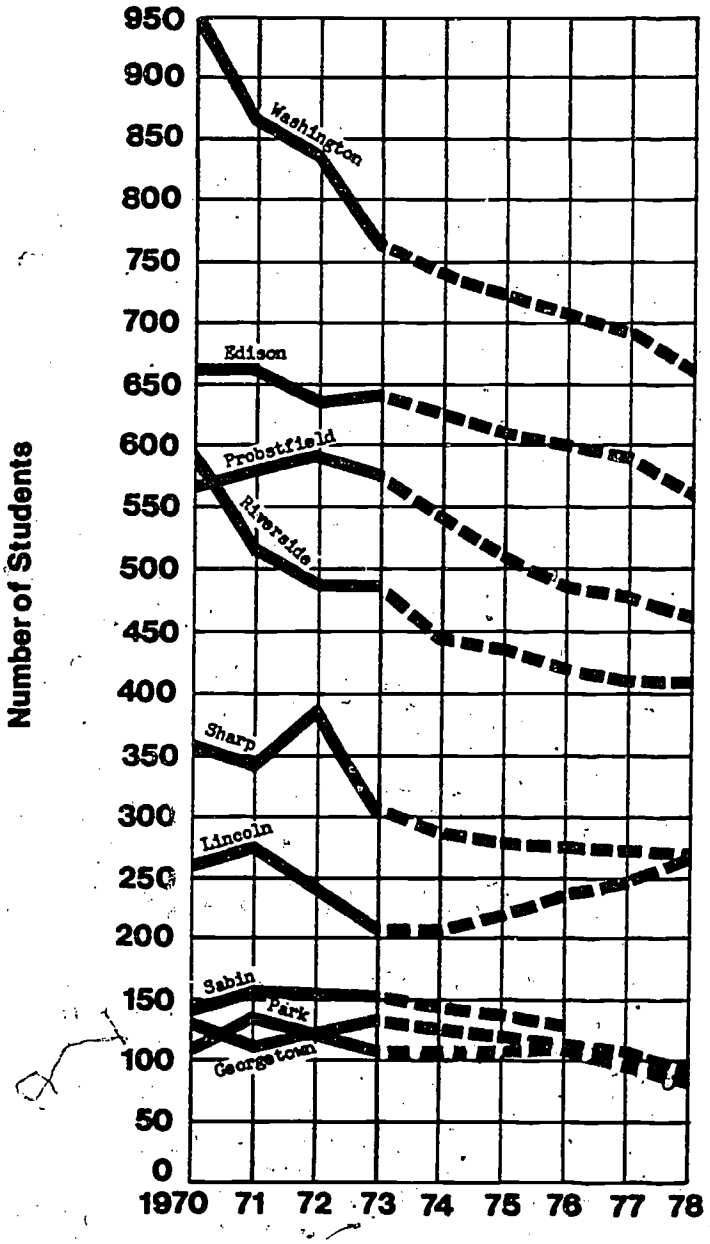
Presenting Enrollment Data

Enrollment data presented in graphic form--with past history in a solid line, projections in dotted lines--are useful in telling the enrollment story to the public. One school district prepared a pamphlet for its board and community with graphs showing: census data (births from 1955-present); elementary enrollment (1955-1978); junior high enrollment; secondary enrollment; total enrollment; a composite of K-6, 7-9, 10-12 enrollment; projected enrollment by school. School by school data (with enrollment history and projections for that school, if possible), are useful when boundary changes and/or school closings are being considered. Figure 6 shows a graphic interpretation of enrollment history and projections for one district's elementary schools.

A narrative discussion of the implications of enrollment trends and projections is useful. The case studies on Managing School Districts with Declining Enrollment, published by the State Planning Agency, provide examples of narrative explanations of enrollment trends.

FIGURE 6

SAMPLE GRAPHIC INTERPRETATION OF ENROLLMENT INFORMATION



PROJECTING BUDGETS

Income and expenditure planning should be carried out into the future as realistically as possible. The goal of budget forecasting is to allow school systems to detect future budget surpluses or deficits at an early stage as part of the planning process. This section presents details on a relatively short, streamlined technique of budget forecasting, plus an excerpt from a more complex budget forecast document. The advantages of the short technique are that it is simple to calculate, easy to understand, and easy to modify as conditions change. It also differentiates budget reductions due to declining enrollment from total required budget reductions. Note that any budget forecast--simple or complex--requires some basic assumptions about rates of increase in revenues and expenditures. School administrators should be sure to state the assumptions underlying their forecasts.

Forecasting Budgets - Two Techniques

The short technique of budget forecasting bases projections on receipts and disbursements per pupil unit. It applies one rate of inflation to the total budget. The short technique, illustrated in Figure 7, is prepared according to the following steps:

1. Convert projected enrollment to pupil units.
2. Calculate actual receipts from all sources (general fund) i.e., state aid, fees; revenue from investments, etc. on a per pupil unit basis.
3. Make a "guesstimate" of revenue increases. (When forecasting beyond the period for which state aids have been appropriated,

one school district assumes a rate of increase equal to the predicted rate of increase in the Consumer Price Index; in the sample projection in Figure 7, the estimate for 1977-78 is based on an average of increases over the previous three years.) For internal forecasting purposes, the source of funds is not significant. The total entitlement for the district is what matters.

4. Calculate projected revenue increase on a per pupil unit basis.

5. Calculate actual disbursement per pupil unit.

6. Make an assumption about percent increase in disbursements assuming no change in program. In the example, in Figure 7, the percent increase in disbursements is based on estimate of percent increase in negotiated salaries.

7. Calculate projected disbursements per pupil unit, assuming no change in educational programming.

8. Calculate totals - i.e., budget balance and year end fund balance.

9. Calculate decrease in pupil units (from 1976-77 to 1977-78) and multiply the decrease by the 1976-77 cost per pupil unit. This figure yields the total budget reduction required.

10. Using current class size figures, calculate the number of staff reductions based on enrollment decline. Financial consequences of changing class size can be readily determined.

11. Calculate the budget savings from reducing staff in proportion to enrollment decline. (The school district which provided the example averaged the salaries of 26 teachers at the lowest end of the salary scale; they found that using the average district salary in this calculation led to overestimation of savings from staff reduction.)

12. Subtract staff reductions due to declining enrollment from total budget reduction required to get the amount of reductions which must come from other sources.

The forecast provides the district with information vital to planning for declining enrollment. It shows, for example, that a staff reduction of 26 teachers due to declining enrollment (assuming a class size of 20), accounts for less than one-half of the total budget reduction required for a reasonably balanced budget. The district that prepared the document will have to make cuts of $455,000 over and above the $260,000 staff reduction to limit its budget deficit to $192,000. This deficit will be made up by reducing

FIGURE 7

ILLUSTRATION OF SHORT TECHNIQUE BUDGET FORECAST

Three Year Financial Projections - General Fund

Item	Current 1975-76	Proposed 1976-77	Projection 1977-78
Enrollment	9,119	8,773	8,300
Pupil Units	10,925	10,566	10,049
% of Decrease	N/A	-3.29%	-4.90%
Beginning Fund Balance			
June 30, 1975	$ 353,870		
1976		$ 358,870	
1977			$ 217,870
BUDGET			
.Receipts	$ 13,800,000	$ 14,479,000	$ 14,550,000
Per Pupil Unit	1,263	1,370	1,448
% of Increase	N/A	8.5%	5.7%
.Disbursements and Transfers	13,795,000	14,620,000	14,742,000
Per Pupil Unit	1,262	1,384	1,467
% of Increase	N/A	9.7%	6.0%
.Budget Balance (Deficit)	5,000	(141,000)	(192,000)
Year-End Fund Balance	$ 358,870	$ 217,870	$ 25,870

Pupil Units 1976-77 10,566
1977-78 10,049
Decrease 517

1976-77 Cost per pupil unit $ 1,384
times pupil unit decrease 517
Budget reduction $715,528

Staff reductions related to enrollment decline
517 pupil units ÷ 20/staff = 26 staff reduction

Total budget reduction $715,000
Staff reduction
(26 @ $10,000) 260,000
Budget reduction $455,000

Proof

1976-77 Disbursements . $ 14,620,000
Less Budget Reductions 715,000
$ 13,905,000
Add 6% Increase 837,000
Projected
1977-78 Disbursements $ 14,742,000

The complex method of forecasting budgets will not be described in detail. Basically, the method forecasts expenses by detailed line items—for example, legal services, secondary principals' salaries, elementary art supplies, senior high textbooks. It also assumes different rates of inflation for various budget categories. For example, the predicted rate of salary increase is related to the predicted rate of increase in the Consumer Price Index. Figure 8 shows how the projected salary for secondary teachers is related to the Consumer Price Index.

FIGURE 8

EXCERPT FROM COMPLEX BUDGET FORECAST SYSTEM

Projected Teachers' Salaries from 1975-76 through 1980-81

	75-76	76-77	77-78	78-79	79-80	80-81
1. Enrollment	4,117	3,929	3,684	3,395	3,104	2,877
2. Teachers at 25/1	207	197	185	170	156	144
3. Difference by year	0	10	12	15	14	12
4. Average salary of lowest teachers	14,000	14,991	15,908	16,757	17,539	18,286
5. Diff. X Avg. Salary	0	149,910	190,896	251,355	245,546	219,432
6. $ total for category	3,809,792	4,079,525	4,170,108	4,191,304	4,123,944	4,043,618
7. $ total - teacher salary	3,809,792	3,929,615	3,979,212	3,939,949	3,878,398	3,824,186
8. Consumer price index		7.08	6.12	5.33	4.67	4.26

For example, the total (line 6) for secondary teachers in 1976-77 ($4,079,525) was calculated by multiplying the actual total in the previous year ($3,809,792) by the projected rate of increase in the Consumer Price Index (7.08). Similarly, the total for 77-78 ($4,170,108) was calculated by multiplying the total for the previous year ($4,079,525) by the projected rate of increase in the Consumer Price Index for 1977-78 (6.12). Line 7 shows another total for teachers' salaries based on staff reduction due to declining enrollment. For example, in 1977-78, the district will

need 12 fewer teachers than in 1976-77. Multiplying 12 times the average salary of the teachers lowest on the salary schedule (line 4 - $15,908) gives a budget reduction of $190,896 (line 5). This figure is subtracted from line 6 (total for category) to give the projected dollar figure for secondary teachers' salaries in 1977-78, $3,979,212, (line 7). Figure 9 shows the result of these calculations transferred to a detailed budget forecast document. It is included to show the detailed nature of this type of budget forecasting.

FIGURE 9

EXCERPT FROM COMPLEX BUDGET FORECAST SYSTEM

EXPENSE DETAIL	1976-77		1977-78		1978-79	
	YEAR AMOUNT	4 %/TOTAL	YEAR AMOUNT	5 %/TOTAL	YEAR AMOUNT	6 %/TOTAL
ADMINISTRATION						
SAL OF DIRECTORS	9000.	2.29	9000.	2.17	9000.	2.07
EXPENSE OF DIRECTORS	650.	0.17	650.	0.16	650.	0.15
OTHER SCHOOL BD EXPENSES	5700.	1.45	5700.	1.37	5700.	1.31
SAL BUSINESS ADMIN	65614.	16.68	69630.	16.77	73341.	16.86
PRINTING AND PUBLISHING	15000.	3.81	16500.	3.97	18150.	4.17
LEGAL SERVICES	15000.	3.81	15000.	3.61	15000.	3.45
FISCAL SERVICES-AUDITS	5500.	1.40	5500.	1.32	5500.	1.26
SCHOOL CENSUS ENUMERATION	4450.	1.13	4450.	1.07	4450.	1.02
SCHOOL CENSUS SUPPLIES	350.	0.09	350.	0.08	350.	0.08
CONSULTANT SERVICES	10000.	2.54	10000.	2.41	10000.	2.30
SAL SUPT AND ASST	113685.	28.90	120643.	29.06	127073.	29.20
BOE EXECUTIVES SALARY	108205.	27.51	114527.	27.66	120947.	27.80
LOCAL TRAVEL	3000.	0.76	3150.	0.76	3308.	0.76
OTHER TRAVEL	1579.	0.40	1596.	0.38	1580.	0.36
OFFICE EXPENSE	3248.	0.83	3499.	0.84	3666.	0.84
OFFICE EXPENSE - POSTAGE	13746.	3.49	15120.	3.64	15876.	3.65
SCHOOL ELECTION EXPENSE	3658.	0.93	3822.	0.92	3994.	0.92
MISC EXPENSE FOR ADMIN	15000.	3.81	15750.	3.79	16538.	3.80
TOTAL ADMIN EXPENSE	393385.	3.07	415186.	3.18	435122.	3.30
INSTRUCTIONAL PERSONNEL						
ELEM PRINCIP SALARY	217360.	2.34	204546.	2.17	215449.	2.27
SEC PRINCIPAL SAL	222052.	2.39	235641.	2.50	248201.	2.62
ELEM CONSULT AND SUPR SAL	110175.	1.18	113021.	1.20	114828.	1.21
SEC CONSUL SUP SALARY	82393.	0.89	84521.	0.90	85872.	0.91
KIND TEACHERS SAL	187321.	2.01	173785.	1.84	169882.	1.79
ELEM TEACHERS SAL	2691744.	28.92	2729215.	28.92	2757383.	29.07
SEC TEACHERS SALARY	3929615.	42.22	3979212.	42.16	3939949.	41.54
SEC SPEC ED STAFF	0.	0.00	0.	0.00	0.	0.00
ELEM SPEC ED STAFF SAL	0.	0.00	0.	0.00	0.	0.00
ELEM SLBP SALARY	162932.	1.75	167140.	1.77	169813.	1.79
ELEM SPCH THRPY SALARY	67438.	0.72	69179.	0.73	70286.	0.74
ELEM EMR SALARY	35107.	0.38	37256.	0.39	39242.	0.41
ELEM SLBP SUPP SAL	26857.	0.29	27550.	0.29	27991.	0.30

ANALYZING STAFF

In most school districts, from 65 to 85 percent of the operating budget is for salaries. The relationship between instructional, supportive, and non-certificated staff and enrollment is basic to planning.

Districts experiencing declining enrollment may have to consider reducing staff. In order to achieve an orderly staff reduction, with minimum personnel anxieties, advance planning is necessary. Therefore, every district should gather and regularly update data on staff characteristics.

The pitfalls of inadequate planning are highlighted in a citizen's advisory committee report to one Minnesota school district. The report says, "It appears that an inappropriate staffing pattern was maintained early in this period. Enrollment began to decline in 1970, with the first steep drop in 1972-73. Certificated staff, however, was increased through 1972-73 and only began to decrease modestly in 1973-74. Specialists were also increasing." This section suggests the type of data that districts need as part of their effort to develop sound staffing plans.

Districts should try to anticipate the long range effect on their overall budget of the distribution of staff on the salary schedule. Figures 10 and 11 are examples of the distribution of teaching staff on the salary schedule in a large and a small district.

The fact that, in both districts, many of the teachers are not at the top of the schedule means that these districts can expect increased staff maturity with direct implications for program costs. Each staff is likely

FIGURE 10

SALARIES AND NUMBERS OF CERTIFICATED STAF BY EXPERIENCE AND LEVELS OF TRAINING IN A LARGE SCHOOL DISTRICT

Step	B.A.	No. of Staff	B.A. +15	No. of Staff	B.A. +30	No. of Staff	B.A. +45	No. of Staff	B.A. +60	No. of Staff	M.A.	No. of Staff	M.A. +15	No. of Staff	M.A. +30	No. of Staff	M.A. +45	No. of Staff	M.A. +60	No. of Staff	Spec.	No. of Staff	Doc.	No. of Staff	TOTAL STAFF
	Level of Training and Number of Staff by Cell																								
1	$ 8,985		$ 9,048		$ 9,300		$ 9,370		$ 9,710		$ 9,710		$10,230		$10,335		$10,680		$11,180		$11,415		$11,705		
2	9,285	15	9,610	1	9,915		10,230		10,600		10,500	1	11,020		11,345		11,675		11,895		12,230		12,545		17
3	9,585	15	10,175	4	10,530		10,890		11,290	3	11,200		11,810		12,135		12,470		12,810		13,045		13,365		22
4	9,885	12	10,740	9	11,135	3	11,555		12,070		12,070	5	12,560		12,025		13,250	1	13,625		13,965		14,230		31
5	10,400	5	11,295	13	11,720	7	12,190	1	12,825	3	12,825	1	13,350		13,695		14,035	1	14,405		14,656		15,030		33
6	10,860	5	11,860	13	12,325	9	12,850	6	13,615	2	13,615	1	14,130		14,485		14,833		15,220		15,465		15,890		36
7	11,395	6	12,440	10	12,930	11	13,320	8	14,405	1	14,405	6	14,920	4	15,275	2	15,825		16,025		16,300		16,725		44
8	11,890	2	13,005	7	13,545	16	14,180	3	15,190	8	15,190	3	15,705	2	16,065	1	16,430	3	16,845		17,125		17,575		44
9	12,380	2	13,580	6	14,150	6	14,836	6	15,970	2	15,970	3	16,495	6	16,635	1	17,225		17,635		17,945		18,405	1	39
10	12,890	3	14,150	2	14,750	4	16,495	4	16,760	4	16,760	7	17,275	3	17,645	1	18,015		18,460		18,760	1	19,230		29
11	13,415		14,725	1	15,365	7	16,155	3	17,550	6	17,550	7	18,055	6	18,435	3	18,815	2	19,275	2	19,580		20,085		38
12	13,945		16,290	2	15,970	4	16,615		18,330	3	18,330	4	18,835	2	19,225	2	19,616	3	20,080		20,395		20,935		
13	14,465		15,860	3	16,585	4	17,485		19,115	5	19,116	2	19,630	6	20,015	2	20,405		20,900		21,225	1	21,775		33
14	14,825	1	16,100	7	16,975	11	17,920	12	19,635	20	19,633	15	20,235	34	20,620	12	21,040	22	21,540	25	21,870		22,445	2	161
TOTALS		66		82		66		42		51		58		63		24		31		27		2		3	535

[a] Table prepared by placing 1974-76 staff on recently negotiated 1975-76 schedule; therefore, it does not reconcile with 1975-76 staff count.

FIGURE 11

SALARIES AND NUMBERS OF CERTIFICATED PERSONNEL BY EXPERIENCE AND LEVELS OF TRAINING IN A SMALL SCHOOL DISTRICT

Experience	B.A.	No. of Staff	B.A. +15	No. of Staff	B.A. +30	No. of Staff	B.A. +45	No. of Staff	M.A.	No. of Staff	M.A.+15	No. of Staff	M.A.+30	No. of Staff	M.A.+45	No. of Staff
	Level of Training and Number of Staff by Cell															
0	$ 8,000	1	$ 8,200		$ 8,400		$ 8,600		$ 8,800		$ 9,000		$ 9,200		$ 9,400	
1	8,200	6	8,490		8,700		8,910		9,120		9,330		9,540		9,750	
2	8,570	1	8,790	1	9,010		9,230		9,450		9,670		9,890		10,110	
3	8,870	3	9,100		9,330		9,560		9,790		10,020		10,250		10,480	
4	9,180	8	9,420	1	9,660	1	9,900		10,140	1	10,380		10,620		10,860	
5	9,500	4	9,750	1	10,000		10,250		10,500		10,750		11,000		11,250	
6	9,830	5.5	10,090		10,350	2	10,610		10,870	1	11,130		11,390		11,650	
7	10,170	2.5	10,440		10,710		10,980		11,250		11,520		11,790		12,060	
8	10,520	2	10,800	1	11,080		11,360		11,640		11,920		12,200		12,480	
9	10,880		11,170		11,460		11,750		12,040	1	12,330		12,620	1	12,910	
10	11,250	2	11,550		11,850		12,150		12,450	1	12,750		13,050	1	13,350	
11	11,630	1	11,940		12,250		12,560		12,870	1	13,180	1	13,490		13,800	
12	12,100	14	12,340		12,660		12,980	1	13,300	3	13,620		13,940	-	14,260	
13			12,750	5	13,080	1	13,410	5	13,740	13	14,070	1	14,400	7	14,730	1
TOTAL		51		9		4		6		21		2		9		1

Note: Two teachers have two years of training.

to increase its training levels, causing increased salary costs. The table can also help districts estimate savings from reducing staff with lowest seniority due to declining enrollment. For example, if the larger district had to reduce teaching staff by 15, the estimated savings would be based on the salaries of 15 teachers with lowest seniority. In this case, those 15 would be at lane 1, step 2 of the salary schedule.

To anticipate staff reductions, school districts must project teacher needs based on average class size or some other measure of student-staff ratios. Class size is a matter of school board policy; declining enrollment districts may need to review policy on maximum and minimum class size. Figure 12 shows the relationship between class size policy and staff reduction plans in one Minnesota district.

This district defines class size as the relationship between teacher and pupil hours. For example, enrollment forecasts for grades 4-6 show a decrease from 2,054 students in 1975-76 to 1,966 students in 1976-77. Since each student spends six hours a day in school, the total number of student hours decreases from 12,324 in 1975-76 to 11,796 in 1976-77. For 11,796 student hours, an average class size of 27.3 requires 432 teacher hours. or 72 teachers at six hours per day. Since there were 76.5 teachers for grades 4-6 in 1975-76, a reduction of 4.5 teachers is required in 1976-77.

Figures 13 and 14 show another way of examining the issue of class size. The figures indicate the distribution of class size by department in one small Minnesota district.

Figure 14 shows that over one-third of the senior high classes in this district have 15 or fewer students. As enrollment continues to decline, some of these courses will become increasingly uneconomical to

FIGURE 12

SAMPLE OF RELATION BETWEEN CLASS SIZE AND STAFF REDUCTION PLANS

Reduction of Teachers for a Class Size of:

K-3	26.1
4-6	27.3
7-12	27.8
K-12	27.3

Actual 1975-76

Division	No. of Teacher Hours*		No. of Student Hours		Average Class Size
K-3	72 x 6 =	432	1978 x 6 =	11,868	27.5
4-6	76.5 x 6 =	459	2054 x 6 =	12,324	26.8
7-12		1,145		30,782	26.9
K-12		2,036		54,974	27.0

Projected 1976-77

K-3	73 x 6 =	438	1903 x 6 =	11,418	26.1
4-6	72 x 6 =	432	1966 x 6 =	11,796	27.3
7-12		1,080		30,010	27.8
K-12		1,950		53,224	27.3

Number of Teachers

	75-76	76-77	Change
K-3	72	73	+1.0
4-6	76.5	72	-4.5
7-12	1145-1080 / 5		-13.0
K-12			-16.5

Estimated Savings

16.5 teachers @ $11,000 = $181,500

* Includes Alternatives Program

FIGURE 13

JUNIOR HIGH SCHOOL CLASS SIZE, SCHOOL DISTRICT E

Subject	Class Size 1-15	16-20	21-25	26-30	31-35	Over 35	TOTAL
Math			4				4
Music			1				1
Social Studies		2	2				4
Business Education							
Agriculture							
English		1	5				6
Art			1				1
Reading							
Science			2				2
Physical Education/ Health		2	1	1			4
Home economics	1			1			2
Industrial Arts		1					1
TOTAL	1	6	16	2			25
PERCENT	4	24	64	8			100
CUMULATIVE PERCENTILE	4	28	92	100			

FIGURE 14

SENIOR HIGH SCHOOL CLASS SIZE, SCHOOL DISTRICT E

Subject	Class Size 1-15	16-20	21-25	26-30	30-35	Over 35	TOTAL
Math	4	1	1				6
Music							
Social Studies		2	4	1			7
Business Education	3		3				6
Agriculture	5						5
English	3		2	1			6
Art		2					2
Reading		1		1			2
Science	1	6					7
Physical Education/ Health			1		1		2
Home Economics	1	1	1				3
Industrial Arts	1		2				3
TOTAL	18	13	14	3	1		49
PERCENT	36.8	26.5	28.6	6.1	2		100
CUMULATIVE PERCENTILE	36.8	63.3	91.9	98	100		

offer. Figure 15 provides a more detailed analysis of class size by course offerings. It indicates that this district will have to examine the cost of offering courses such as Journalism (enrollment of three students), German (total enrollment of 19 students), Accounting III (enrollment of 9 students) and several others. This type of analysis may stimulate a review of curriculum and a discussion of educational priorities.

FIGURE 15

SAMPLE OF DETAILED ANALYSIS OF SENIOR HIGH CLASS SIZE BY COURSE OFFERING

Course	Size of Sections	Range	No. of Sections With 15 or Less Students
Job Adjustment	23, 14, 24	14 - 24	1
Bible	24, 13	13 - 24	1
Reading	13, 15, 19, 16, 11, 15	11 - 19	4
Agriculture II & III	9	9	1
Introduction to Music	9	9	1
French I	17, 12	12 - 17	1
French II	14	14	1
French III	9	9	1
Latin III & IV	8	8	1
Spanish II	10, 11	10 - 11	2
German I	6	6	1
German IV	13	13	1
Wood I	16, 8, 19, 17, 20	8 - 20	1
Wood II	(10 + 10) 2 hour block	10	2
Metals	16, 11, 11	11 - 16	2
Welding	11, 9, 11	9 - 11	3
American Government	35, 26, 14, 26, 25, 30	14 - 35	1
Economics	15, 25	15 - 25	1
Journalism	3	3	1
English 10	31, 31, 17, 28, 30, 27, 28, 28, 26, 22, 17, 31, 17, 28, 27, 16, 19, 29, 29, 29, 30, 30, 15, 23	15 - 31	1
Drama	14	14	1
Shorthand II	9	9	1
Shorthand I	19, 14, 19	14 - 19	1
Business Machines	23, 14	14 - 23	1
Accounting III	9	9	1
Consumers Food	12, 16, 12, 11, 17, 16, 15	11 - 17	4
Foods II	14	14	1
Consumers Education	11	11	1
Art I	18, 20, 18, 16, 20, 13, 14	13 - 20	2
Art II	20, 12	12 - 20	1
Problems & Statistics	10	10	1

Figure 16 illustrates a district's anticipated staff reduction based on increasing student/adult ratio according to three cost-saving alternatives (A, B, and C).

FIGURE 16

EXAMPLE OF A DISTRICT'S STAFF REDUCTION PLANS

BASED ON THREE COST-SAVING ALTERNATIVES

R = RATIO 1975-76

1976-77 ELEMENTARY POPULATION 3100 SECONDARY POPULATION 4116

ALTERNATIVE PLANS	R	ALT. A (R+2)	ALT. B (R+2)	ALT. C (R+1)
ELEMENTARY RATIO	18.74	20.74	20.74	19.74
SECONDARY RATIO	16.00	18.00	18.00	17.00
ELEM. REDUCTION (RATIO)		15.95	15.95	8.38
SEC. REDUCTION (RATIO)		28.58	28.58	15.13
ELEM. REDUCTION (ENROLLMENT)	11.47	11.47	11.47	11.47
SEC. REDUCTION (ENROLLMENT)	15.43	15.43	15.43	15.43
REDUCTION (BUILDING CLOSE)		24.00	12.00	12.00
TOTAL REDUCTION	26.90	95.43	83.47	62.41

CURRENTLY ONE EQUIVALENCY = ONE AVERAGE TEACHER'S SALARY = $15,000.00.

The table differentiates staff reductions due solely to declining enrollment from staff reductions due to expenditure limitations. The latter necessitates adjustments such as closing buildings and increasing adult-pupil ratios by two for alternatives A and B and by one for alternative C. Note that the first two figures in each column are student-adult ratios. The "R" column shows existing ratios. The remainder of

the figures show staff reduction based on full time equivalencies. Rows 3 and 4 show staff reductions following an increase in student-adult ratios. Rows 5 and 6 show staff reductions due to enrollment decline. Row 7 shows staff reductions following school closings (two schools for plan A, one school for plan B and C). It is included as an example of a format developed by one Minnesota district for displaying the implications of varying class size (adult-student ratios, in this particular district).

Figures 17 and 18 are illustrations of staff reduction plans and anticipated retirements.

FIGURE 17

SAMPLE CHART SHOWING STAFF REDUCTION PLANS

LEVEL	STAFF NOT RETURNING FOR 1974-75					STAFF RETURNING FROM LEAVE	DIFFERENCE (Less than Present Staff)	1974-75 PLANNED REDUCTION	NEEDED STAFF REDUCTION	NEW STAFF NEEDED
	Long Term Agreements	Temporary Contracts	Retirements	Resignations	Leaves for 1974-75					
ELEMENTARY TOTAL	7	2	2	2	1	4	- 10	10	0	0
Kindergarten	2					1				
Primary	5		2	1		1				
Intermediate		1		1	1	1				
Special		1				1				
JUNIOR HIGH	2 L.A.& Ger/Eng				1 Couns.	2 S.S. & Art	- 1	5	4	0
SENIOR HIGH	1 P.E. (B)	2 S.S. & For.Lang.		1 English	1 Libr.	2 Lang/Arts & For.Lang.	- 3	3	0	0

FIGURE 18

SAMPLE CHART SHOWING PROJECTED FACULTY RESIGNATIONS AND/OR TERMINATIONS

TEACHING CATEGORY	1974-75							FUTURE RETIREMENTS				
	ESTIMATED REDUCTION FOR 75-76	LEAVES APPROVED FOR 75-76	RETIREMENT END 74-75	LONG TERM AND TEMPORARY ENDING END 74-75	RETURNING FROM LEAVE IN 75-76	NECESSARY REDUCTION	1975-76	1976-77	1977-78	1978-79	1979-00
Elementary (Regular)	9	1	1		3		3	3	2	2	4
P. E.											
P. E. & Reg.											
Music											
Media							1				1
Secondary	10										
Social Studies			1	1							
Ind. Arts			1							1	
Lang. Arts				1							1
Math										1	
Science											
Spanish									1		
French					1						
German											
Home Ec.											
Art					2						
Counseling					1						
Bus Ed.											
Phy. Ed.											
Music											
Media				1	1						
Special Ed. Psychologist							1				
Sp. Therapist					1						
SLBP											
Gen. Spec. Ed.			1								
Work Programs				1							
Principals							1		1		
District Administration							1	1	2		

Districts should be aware of the level of attrition due to resignations, retirements, leaves and other similar personnel actions to anticipate how much of necessary staff reduction can be accomplished without actually laying off personnel. Anticipating retirements requires age data on staff.

Other important data about staff which districts need are the seniority of each teacher and a qualifications assessment--what each teacher is

teaching and is qualified to teach; certification status, degrees, and additional credits. This data is important because of laws governing "reductions-in-force" in Minnesota.

Districts must also try to anticipate the need for non-professional, supportive and administrative staff and to determine whether or not attrition will be adequate to meet the reduced need for these positions in declining enrollment districts. To do so, districts may need to determine to what extent the number of workers needed in non-professional, supportive and administrative fields is related directly to the number of pupils. Figure 19 is an illustration of the ratio between students and "supportive" staff (including clerical workers and nurses, but not other non-certificated personnel such as custodians or food service workers) developed by one Minnesota district. A more complete analysis should include all non-certificated staff and administrative staff.

FIGURE 19

SAMPLE CHART SHOWING NUMBER OF STUDENTS PER SUPPORTIVE STAFF MEMBER

LEVEL / POSITIONS	SLBP RESOURCE	SLBP TUTORS	MEDIA	NURSE	COUNSELOR	PSYCHOLOGISTS	SPEECH CLINICIANS	MR RESOURCE	CLERICAL	CONSULTANTS	PHYSICAL EDUCATION	VOCAL MUSIC
ELEMENTARY	557	650	550	950		1290	1114	1300	550	NA	550	1100
JUNIOR HIGH		630	550	1100	375	4378	2189	1095	275	NA	NA	NA
SENIOR HIGH		1200	825	2450	350	4874	4854	1226	245	1225	NA	NA
SECONDARY TOTAL		920	663	1547	367	4626	3084	1150				

ANALYZING FACILITIES

An analysis of current and future facilities use and needs based on educational programs and enrollment data is important in planning for declining enrollment. In many communities, declining enrollment will result in unused building capacity. Analysis of facilities will help districts determine how much extra space will be available and the economic and programmatic consequences of alternative uses of the space.

Districts with rapidly declining enrollment usually face several alternatives: 1) reorganizing grade structure to make best use of space (for example, using a K-5-4-3 middle school plan instead of the more common K-6-3-3 plan); 2) closing schools that have become inefficient to run because of low enrollment; 3) changing school attendance boundaries; 4) finding other uses--unrelated to public school programs--for excess space. Choosing any one of these alternatives may lead to additional expenditures as well as savings.

Characteristics of Plant Facilities

This section suggests steps in analyzing facilities. The first step is to prepare an inventory of plant facilities to determine total capacity by grade level. Figures 20 and 21 are summaries of plant facility inventories. These tables allow a quick comparison among facilities and suggest which buildings are of greatest value to the district in terms of physical characteristics such as site size, safety, etc. Of course, these tables require much back-up data. Districts may evaluate buildings according to standards from the Guide for Education Planning of School

FIGURE 20

EXAMPLE OF INVENTORY OF SCHOOL PLANT FACILITIES CURRENTLY OPERATED BY SCHOOL DISTRICT B

Building	Date of Construction	Date of Additions	Site Size (Acres)	Grades Served	Estimated Maximum Capacity	Current Enrollment	Comments
Elementary I	1909	1938	1.7	K-6	300[a]	279	Old, educationally obsolete, difficult to maintain.
Elementary II	1953	1957	8.2	K-6	634[b]	548	Economical, quality construction. Educationally good.
Elementary III	1958	--	10	K-6	217[b]	146	Small, therefore inefficient, otherwise adequate, semi-rural.
Elementary IV	1958	1967	9.5	K-6	417[b]	290	Excellent building. Addition has flexible pad format.
Elementary V	1915	1937 1948	1.7	K-6	550[a]	448	Older building, needs work. Inadequate sit.
Elementary VI	--	1937 1949 1967	1.7	K-6	550[a]	472	Inadequate site. Original building gone. Additions constitute adequate facility.
Elementary VII	1952	1954	6.8	K-6	450[a]	287	Economical, quality construction. A good school facility.
Elementary VIII	1948	1954	6	K-6	525[a]	454	Good facility.
Junior High	1958	1939 1954	19.4	7-8	1,000[a]	1,386	A modern, functional facility. Excellent.
Senior High	1921	1972	4.6	9-12	2,240[b]	2,286	See text.

[a]Estimated by school official. [b]Estimated by writing team.

FIGURE 21

EXAMPLE OF INVENTORY OF SCHOOL PLANT FACILITIES IN SCHOOL DISTRICT A

School	Grades	Site Size (Acres)	Date of Construction	Dates of Additions	Current Enrollment (10/1/75)	Estimated[a] Program Capacity	1975-76 Unused Program Capacity
Elementary I	K-6	10	1952	1961	609	650	41
Elementary II	K-6	5	1921	1947, 1952 1958	529	550	21
Elementary III	K-6	15.2	1969	--	737	675	(62)[b]
Elementary IV	K-6	14.9	1956	1961	670	650	(20)[b]
Elementary V	K-6	5	1926	1942, 1948 1953	537	550	13
Elementary VI	K-6	90[c]	1967	--	618	675	57
Elementary VII	K-6	10	1927	1952, 1954 1953	499	500	1
Junior High I	7-9	3.5	1924	1935	625	800	175
Junior High II	7-9	90[c]	1959	--	824	1,000	176
Junior High III	7-9	[illegible]	1967	--	884	1,100	216
Senior High I	10-12	24	1955	1962	1,357	1,900	543
Senior High II	10-12	90[c]	1970	--	1,270	1,500	230

[a]Determined by District A administrators on basis of current instructional program design.
[b]Current enrollment exceeds estimated capacity.
[c]Same site.

Buildings and Sites in Minnesota, published by the State Department of Education. Or, they may use citizen-staff committees to establish criteria for evaluating buildings; see the section on school closings for examples. In any case, the standards for evaluating buildings should be explicit.

The second step is to deduct the capacity of inadequate facilities from total initial capacity to determine the total usable space. The third step is to decide what, if any, remodeling is required to make facilities more appropriate for the district's educational program. The effect of remodeling on usable capacity must be calculated to determine total adjusted capacity.

The fourth step is to chart the interaction of adjusted capacity with enrollment forecasts. Districts with declining enrollment will then be able to identify the extent of excess capacity. Figure 22 is an example of the interaction of plant facility capacity and enrollment in one Minnesota district. It shows that this district will have so much unused capacity by 1979-80 that school closings will be inevitable.

FIGURE 22

EXAMPLE OF INTERACTION OF PLANT FACILITY CAPACITY AND ACTUAL AND FORECAST ENROLLMENT IN DISTRICT A, 1976-77 THROUGH 1980-81

		1976-77		1977-78		1978-79		1979-80		1980-81	
Facilities	Capacity	Forecast Enroll.	Unused Cap.[b]	Forecast Enroll.	Unused Cap.[b]	Forecast Enroll.	Unused Cap.[b]	Forecast Enroll.	Unused Cap.[b]	Forecast Enroll.	Unused Cap.[b]
Elementary (K-6)	4,250	3,902	348	3,679	571	3,413	838	3,149	1,101	2,939	1,311
Junior High	2,900	2,289	611	2,125	775	2,012	888	1,850	1,050	1,802	1,098
Senior High	3,400	2,582	818	2,496	904	2,350	1,050	2,307	1,093	2,142	1,258
TOTAL	10,550	8,773	1,777	8,300	2,250	7,774	2,776	7,306	244	6,883	3,667

[b]Total capacity minus enrollment.

In planning for future facilities, the cost of operation as well as numbers of pupils and numbers of existing classrooms must be taken into consideration. A final step in planning is to determine and report comparative operational costs for buildings in a district. Figure 23 shows an approximate prorated annual operational cost for an elementary school in one Minnesota district. Note that maintenance of plant is excluded because maintenance activities could not be satisfactorily allocated to particular elementary attendance units in a one-year time frame.

FIGURE 23

EXAMPLE OF ANNUAL OPERATING COSTS OF AN ELEMENTARY SCHOOL

Attendance Unit - School #9
Enrollment K-6 71
Pupil Units 71

Category of Budget Allocation Code	Item	Building Allocation	Per Pupil Allocation
100	Administration	$ 1,537.86	$ 21.66
210.12	Elementary Principals	4,042.85	56.94
210.22	Elementary Consultants	364.94	5.14
210.31	Kindergarten Teachers	.00	.00
210.32	Elementary Teachers	34,581.61	487.06
210.41	Librarian, Elementary	1,411.20	19.88
210.61	Secretaries	.00	.00
210.62	Teachers' Aides	1,194.60	16.83
220.2	Elementary Texts	930.81	13.11
230.12	Library Books, Elementary	280.45	3.95
230.2	Periodicals - Newspapers	125.00	1.76
230.3	Audio-Visual	146.97	2.07
230.4	Audio-Visual Rental	68.87	.97
230.5	Library Supplies	39.05	.55
230.6	Other Expenses - Library	35.50	.50
240.1	General Supplies	1,154.46	16.26
240.2	Kindergarten Supplies	.00	.00
240.21	Art Supplies	210.16	2.96
240.223	Music Supplies	51.12	.72
240.23	Phy. Ed. & Health Supplies	58.22	.82
240.255	Science Supplies	58.22	.32
240.3	Tests - Elementary	39.76	.56
250.2	Travel	318.24	4.48
410.13	Salary, Nurse	257.73	3.63
410.2	Salary, Non-Professional	76.68	1.08
420.1	Supplies	9.94	.14
420.2	Travel	6.39	.09
610.2	Salary, Custodian	1,250.00	17.60
630.1	Fuel Oil	620.00	8.73
640.1	Water and Sewage	.00	.00
640.2	Electricity	944.54	13.30
640.3	Gas	.00	.00
640.4	Telephone	192.00	2.70
650.1	Custodial Supplies	343.64	4.84
650.2	Supplies, Vehicle Operation	51.83	.73
650.3	Supplies, Care of Grounds	17.75	.25
800.	Fixed Charges	2,947.90	41.51
1150.11	Salary, Summer School Elem.	905.96	12.76
1150.21	Supplies, Elementary	52.54	.74
	TOTAL	$54,326.79	$765.17

In Figure 24, the elementary attendance units are ranked in order of per pupil unit cost. These data are a cost-benefit input into a decision about the economy of continued elementary attendance unit operation.

FIGURE 24

EXAMPLE OF COMPARATIVE OPERATIONAL COSTS FOR ELEMENTARY SCHOOLS IN ONE MINNESOTA DISTRICT

Rank	School	Per Pupil Unit Allocation	Total Allocation	Percent	Pupil Units K	Pupil Units 1-6	Pupil Units Total	Enrollments K	Enrollments 1-6	Enrollments Total	Percent
1	School #1	$1,353.50	$37,897.88	1.7	0	28	28	0	28	28	.86
2	School #2	1,009.91	82,813.34	3.6	8	74	82	15	74	89	2.7
3	School #3	899.10	76,423.82	3.3	4	81	85	8	81	89	2.7
4	School #4	851.84	124,368.79	5.4	11	135	146	21	135	156	4.8
5	School #5	788.24	141,884.06	6.2	15	165	180	30	165	195	6.0
6	School #6	786.09	191,018.74	8.4	12	231	243	24	231	255	7.8
7	School #7	779.22	217,402.69	9.5	23	256	279	46	256	302	9.3
8	School #8	776.15	262,338.03	11.5	24	314	338	47	314	361	11.1
9	School #9	765.17	54,326.79	2.4	0	71	71	0	71	71	2.2
10	School #10	712.78	456,180.81	20.0	52	588	640	103	588	691	21.3
11	School #11	681.59	393,277.25	17.2	41	536	577	81	536	617	19.1
12	School #12	669.39	246,335.51	10.8	25	343	368	49	343	392	12.1
TOTAL			$1,284,267.71	100	215	2822	3037	424	2822	3246	100

BALANCING REVENUES AND EXPENDITURES - THE PROCESS

Every Minnesota school district has to economize. Financial problems are especially acute in districts with declining enrollment. Even growing districts have to reduce spending because of levy limitations and inflation.

Retrenchment requires developing and weighing alternative cost-saving plans. School administrators must decide who should be involved in this process, when they should be involved, and how much they should be involved. Of course, there are no "right" answers. The extent of community, staff, and board participation depends on the history of school-community relations, the "mood" of the community, and the nature of decisions to be made. If closing a school is a possibility, community involvement is more important than if staff attrition constitutes all cost-saving. Teacher participation is crucial if cost-saving comes from staff or program reductions. In any case, staff participation helps combat the morale problems which seem to be an inevitable accompaniment to declining enrollment. This section summarizes the observations of administrators in several districts which have had to reduce spending and reviews the strategies for determining priorities developed by four districts.

Administrators' Observations on Reducing Spending

Superintendents suggest that it is difficult to make program reductions in the absence of a referendum attempt. Community and staff do not accept reductions unless the attempt to raise funds by a levy referendum has failed. However, at least two districts contacted in planning this manual had made major budget reductions for several years in a row

without a referendum atttempt. One of these districts will probably hold a referendum in the near future.

Most districts which had already completed several years of retrenchment found that community and staff participation in setting priorities was essential, at least during "the first round." However, one district had made most of its decisions centrally. Citizens have remained active for several years in some districts. In others, citizens have lost interest, apparently because cost-saving options were so limited. In either case, school administrators felt that they earned credibility by formally involving community and staff in budget decisions.

Most districts have held public hearings on proposed budget cuts and on changes in educational programs; these hearings have preceded the board meetings at which decisions were actually made. Whatever approach they have used to develop options, superintendents felt that they had a responsibility to develop and justify their own priorities for the school board and community in addition to providing a list of choices.

Processes for Generating Alternatives in Four Minnesota Districts

District A established a Study Committee for the Investigation of the Impact of Declining Enrollment. The committee's assignment was to make several alternative recommendations to the Board of Education about future school organization and need for school facilities. Representatives from the P.T.A., civic groups, the teaching staff, the Board of Education, the city government and the non-public schools served on the committee, which met twice a month for nine months. The committee began by identifying some basic assumptions about enrollment, revenue, staffing patterns, and school plant facilities use based on reviewing the type of data outlined

in the previous sections of this manual. It then compiled a list of alternatives, with advantages and disadvantages of each. Figure 25 is the worksheet the committee used to evaluate alternatives.

FIGURE 25

WORKSHEET USED TO IDENTIFY ALTERNATIVES

Members _____

GENERAL CLASSIFICATION _____
(Example: Better Plant Use)

PROPOSED SOLUTION _____
(Example: Close Schools)

ADVANTAGES	DISADVANTAGES
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.
6.	6.
7.	7.
8.	8.

Figure 26 is the composite of alternatives derived from the worksheets.

FIGURE 26

COMPOSITE OF ALTERNATIVES

Note: Included are items cited one or more times on worksheets.

SOLUTION	ADVANTAGES	DISADVANTAGES
Close elementary school(s)	- Saving of $200,000 each - Better use of building space - More flexible use of buildings - Elimination of undesirable factors - Better use of supportive staff - More flexible program - Better use of services - Less maintenance costs - Possible source of income - Reorganization of learning programs - Use money to pay salaries	- Some initial objections from neighbors - Finding use for the building - Increased transportation of students - Loss of facilities for neighborhood use - Problems of disposal of property
Hold public hearings	- Community support - Community involvement	- Citizens will cite unhappy feelings - Citizens may resist
Move sixth grade from elementary schools	- Maintain optimum sized junior high schools - Economy in use of facilities - Better curriculum offerings - Fewer elementary buildings needed	- Age spread in junior high - Need for changed program - Staffing problems - Need for inservice of staff - Bussing problems - Objection from parents
Reduce staff (increase ratio)	- Reduction in expenditures	- Teacher insecurity - Less breadth of experience on staff - Less flexibility for program offerings
Cooperate with other schools	- Exchange more experienced teachers for less experienced - thus less cost - Would have a better mix of experience - Revitalizing of staff - Save some teachers their jobs	- Difficulty in getting cooperation - Red tape for administrators - Resistance from teachers
Provide teacher aides	- Improve educational system - Improve standards of system - Give teachers assistance	- Full time teachers may feel threatened
Early retirement of staff	- Teachers with less seniority - Lower costs - Better staff balance	- Some teachers do not choose to retire early for personal reasons

SOLUTION	ADVANTAGES	DISADVANTAGES
Reduction of administrative positions	- Saving in staffing costs - New pay scale - Eliminate some positions which now exist	- More job responsibilities for remaining administrators - Less experience in some positions
Employ teachers part time	- More people can be employed - Greater diversity in experience - Opportunity for inservice - More curriculum development - Less scheduling problems - Create innovative organization - Save money because of less older teachers	- Larger "numbers" of teachers in system - More administrative work - Some personnel problems
Look for Federal Grants	- Utilization of teaching skills - Community programs	- Difficult to obtain - Time and effort to seek
Shared time with parochial schools	- Save money - Utilization of skills - Better building utilization - Improved programs	- Problems in coordinating systems - Communication difficulties
Reduce salaries	- Only real impact on costs	
Prioritize classification of jobs within district	-	-
Cut extracurricular (or outside support) programs	-	-
Develop alternative schools	-	-
Encourage citizen education	-	-

Finally, the committee narrowed the number of alternatives to 14, which were not mutually exclusive. The paragraphs quoted below are excerpts from an analysis of the 14 alternatives. They are included here to illustrate a format for presenting alternatives and to show the detailed level of analysis a citizens' group produced.

EXCERPT FROM ALTERNATIVES RECOMMENDED BY
DISTRICT "A"'S STUDY COMMITTEE FOR THE INVESTIGATION
OF THE IMPACT OF DECLINING ENROLLMENT

ALTERNATIVE 3: Close one elementary building following the 1975-76 school year and another elementary building following the 1977-78 school year, while maintaining the K-6 organizational pattern.

Consequences:

a. The effects of selecting this alternative would be similar to those for Alternative 2, with some additional factors.
b. An additional consequence of great importance would be that enrollment in the junior high schools would fall approximately 570 students below the optimum of 2200.
   1) Per pupil overhead and instructional costs would increase.
   2) The enriched educational program presently in operation would be jeopardized.

Comment: Even with two buildings closed, the remaining elementary buildings would be functioning slightly (25 students) below the optimum size.

ALTERNATIVE 4: Close one elementary building following the 1975-76 school year and another elementary building following the 1976-77 school year. Relocate Grade 6 in the junior high buildings beginning with the 1977-78 school year.

Consequences:

a. The effects of this alternative would be similar to those for Alternatives 2 and 3, with some additional factors.
b. An additional consequence of considerable importance is that the remaining elementary buildings would be at optimum size as indicated in the section on standards.
c. The junior high schools would be maintained at optimum size.

d. The benefits of more highly specialized educational facilities (practical arts, fine arts, physical education, science, media) would become available to Grade 6 students one year earlier than at present.
e. A saving of approximately $200,000 would be in effect one year more than in Alternative 3. This relief would be in addition to the amount indicated for closing the first school.
f. Relocation of Grade 6 students might cause certification problems for some teachers.
g. A need for extensive inservice activities would be generated.
h. Selection of this alternative would necessitate an indepth study of the characteristics and educational needs of emerging adolescent age students, since adding Grade 6 to this level would very likely require extensive program changes to accommodate these younger students. (Prior to the preparation of this report, the Superintendent of Schools had already charged the Education Department with responsibility for conducting such a study.) This study will also address itself to the effects of integrating Grade 6 students with older rather than younger students, which might cause some concern.

Comments:
a. The matter of per pupil units would need to be clarified for fiscal planning purposes. (Secondary pupils are considered 1.4 per pupil units.) This would not, however, reduce the total per pupil units for revenue computation, and it might increase them, depending upon forthcoming decisions.
b. This alternative could not be implemented before a detailed proposal had been submitted to and approved by the State Department of Education.

The school administration in District A also prepared three alternative plans for balancing the budget, plus a fiscal planning study, which examined the management, educational, and financial implications of the various alternatives. The paragraphs quoted below are excerpts from the statement of alternatives developed by District A's administrators.

EXCERPT FROM ALTERNATIVES DEVELOPED
BY DISTRICT "A"'S SCHOOL ADMINISTRATION

ALTERNATIVE PLAN "C": This plan would be a more gradual and moderate approach to the adjustment process. A fairly substantial deficiency of revenue would still exist in 1980.

If this process were to be followed, a further review would be necessary during 1977-78 to plan for additional adjustment, unless some form of financial relief should become available to change the outlook. In other words, the presumption under this plan is that the Revenue Assumptions are low.

The adjustment schedule would be:
1976-77 - Increase adult/student ratio by one.
Close one elementary building.
1977-78 - Increase adult/student ratio by one.
Close one elementary building.
1978-79 - Close one elementary building.
1979-80 - Adjust to enrollment level.

CONCLUSION: There is no magic formula in this adjustment process, but since we are dealing in monetary terms, it can be reduced to a simple formula in terms of dollars to pay for staff, facilities, services, and materials.

Since 87 percent of the General Fund Budget is devoted to salaries for teachers, clerks, custodians, bus drivers, and other personnel, it follows that the major impact of the adjustment will come in this area. When you close a building, you affect staff as well as utilities and other costs; when you change the adult/student ratio, you affect staff. It will be a very painful process, not only for those who will be directly affected, but also for those whose workload will be increased as a result.

In 1976-77, the reductions would be approximately as follows:
Plan "A" - 95.43 total, including teachers, administrators, custodians, clerks, cooks, etc.
Plan "B" - 83.47
Plan "C" - 62.41

Figure 27 shows the financial consequence of each alternative.

FIGURE 27

ILLUSTRATION OF FINANCIAL CONSEQUENCES OF

THREE ALTERNATIVE BUDGET REDUCTION PLANS

Projected General Fund Balance on June 30, 1976 to 1980

	Plan "A"	Plan "B"	Plan "C"
6/30/76	$670,829	$670,829	$670,829
6/30/77	484,043	162,143	(44,857)
6/30/78	455,078	(130,422)	(555,422)
6/30/79	489,771	(169,229)	(809,229)
6/30/80	446,998	(243,002)	(987,002)

The paragraphs below are from District A's Fiscal Planning Study. This excerpt and the preceding one are included as an example of how one district organized, analyzed and presented alternatives to the School Board.

EXCERPT FROM DISTRICT A'S FISCAL PLANNING STUDY

Management and Educational Consequences: The Fiscal Planning Study identifies two primary actions which if adopted over a period of years will establish an appropriate relationship between revenue and expenditures in the General Fund. These primary actions are increasing the adult workers-student ratio and the closing of school buildings. It is expected that these actions will result in management and educational consequences.

General Consequences:

a. The closing of each elementary building under the present cost estimates will result in an expenditure reduction in the general fund of approximately $225,000 each succeeding year for personnel and operational costs.
b. Increasing the adult-student ratio will result in increases in instructional group sizes (class) which in turn will reduce the total number of adult workers needed to operationalize the educational program and services.

Specific Consequences:

a. Closing of buildings
   1) The reduction of personnel expenditures resulting from closing of buildings does not include teachers since relocation of students does not reduce the need for them.
   2) The closing of buildings almost eliminates the need for administrative, supportive, and service staff formally utilized in that building (i.e., media, cafeteria).
   3) The closing of buildings will mean the relocation of approximately 500 pupils per building.
   4) The closing of elementary buildings brings into reality the "Optimum-Sized Building" recommendations made by District A's Study Committee. That size was identified as 500 to 600 students.
   5) With present junior high school enrollments declining and shortly falling below the recommended 1050-1150 optimum size, the closing of elementary buildings makes possible future relocation of elementary pupils to junior high buildings.
   6) The closing of elementary buildings creates the problem of "which ones."
   7) The closing of elementary school buildings will cause a careful reexamination of pupil transportation. The

costs, however, of any increases will have very little effect on general fund expenditures.

8) The closing of elementary schools will cause the need for property disposal.

9) The closing of elementary buildings is a necessary action because of fewer pupils irrespective of financial savings.

b. Increasing Adult-Student Ratio

Since 87% of the general fund expenditures are related to personnel costs and since almost all revenue sources are based on the numbers of pupils enrolled, the relationship between instructional, supportive, and clerical staff and the numbers of pupils enrolled is a basic determiner in fiscal planning.

1) Increasing the adult-student ratio would result in an overall reduction of staff equivalencies. Closing buildings would add to this reduction of approximately twelve equivalencies per building.

2) Making class groups somewhat larger reduces the need for regular teaching stations, thus making it necessary to close buildings.

3) Any spaces not used for regular instructional uses will be modified into special uses, i.e., elementary science lab.

4) There will be need for extensive study of the educational organization and program at the middle school years (5-6-7-8-9). A study has been activated by the Superintendent of Schools.

District A's Board of Education reviewed both the community committee's alternatives and the school administration's plans in reaching its decision. Administrators from District A felt that their process worked well and that staff and community developed a good understanding of the district's situation.

School District B used a very elaborate process to generate alternatives during its first year of budget cutting. The first step was to invite staff members and citizens to submit ideas for both program reduction and expansion. Citizens responded on a tear-off card attached to a school newsletter mailed to every home in the district. A "cut-growth" list was developed and submitted to a Budget Review Committee composed of administrators, teachers and P.T.A. Council representatives from each building.

The committee had a target figure for necessary budget reductions based on budget forecasts.

After the committee had compiled a "master list", the district held an open public forum for discussion of items on the list. Then the list was refined and distributed once more for staff and community comment before the School Board reached a decision.

District "B" felt that its process was time consuming and led to divisiveness in the school organization; everyone suggested that the "other guy's" program be cut. On the positive side, staff understanding of the district's problems increased. And staff morale stayed relatively high, since the process precluded "second-guessing" about what was to be cut. District B eventually changed the process. The administration still solicits suggestions; it distributes the list to individual schools. Then, it tells each school how much to cut, based on "across the board" percentages. Decisions about what to cut are made at the building level, though district-wide services must also take a percentage cut. The main advantage of this method is that it consumes less time than the more complex process. Its disadvantages are that schools get further apart programmatically and that, according to the superintendent, some "bad decisions" are made. In retrospect, District B feels that the process it used the first time around was necessary to build support for the administration and to educate staff and community about district problems.

Districts "C" and "D"--whose cost saving plan (described in the next section) involves inter-district staff sharing--emphasized staff participation. The districts planned numerous in-service staff meetings and established many inter-district staff committees to plan more efficient use of

staff and facilities. After staff-sharing was successfully underway, the cooperating districts began a series of public hearings to solicit ideas on additional ways to cooperate. The hearings have preceded the target date for beginning new cooperative ventures by almost two years. Districts "C" and "D" feel that time spent in staff training and with staff committees has been the basis for their successful staff-sharing, cost-saving plan.

BALANCING REVENUES AND EXPENDITURES - THE PRODUCT

This section describes what several declining enrollment districts have done to balance their budgets. Since judgments about educational quality are subjective, it is hard to assess the impact of the adjustments discussed here on various school districts. Some responses to declining enrollment have a much greater impact on instruction and pupil services than others; some adjustments have major impact in one district, relatively little in another. This section makes no attempt to evaluate the impact of typical budget cuts on school programs. It does include a few suggestions from school administrators for maintaining educational opportunity in spite of budget limitations.

Typical Budget Reductions

Most districts have made partial cuts in many programs rather than eliminating one or two programs completely. Budget reductions have typically occurred in the following areas:

- supplies
- transportation for extra-curricular activities and field trips
- daily student transportation
- intra and extramural sports
- extra-curricular programs
- curriculum development and consultation
- staff travel
- staff development
- elementary art, music, physical education, counseling, and library services

- administrative working time
- administrative services
- non-certificated staff (aides, clerks, nurses, etc.)
- foreign language and other relatively low demand curricular courses
- secondary art and music offerings
- capital improvements
- maintenance

Most districts with rapidly declining enrollments have found that savings from reductions in the areas listed above are not sufficient to balance the school budget. Their major savings have come from increasing class size and from closing school buildings. The latter, of course, is an extremely difficult job; it is discussed in more detail in the section on closing a building.

Strategies for Maintaining Educational Programs

Some districts have reorganized grade levels or changed school boundaries to avoid closing a school or to make more efficient use of space. One district whose elementary population has stabilized, but whose junior high population is declining, may move sixth graders into the junior high. Another is exploring these four alternatives:

K-5-3-4 (a 3 year middle school and 4 year high school)

K-6-2-4 (a 4 year high school)

K-6-2-2-2 (a 2 campus senior high)

K-4-4-4 (a 4 year middle school and 4 year high school)

One rural elementary school with 100 children and 5 teachers has been reorganized on a team teaching basis as an alternative to combination classes (i.e., one teacher, in a self-contained room, with first and second

graders). Elementary teachers identify their preferred subjects and specialize in teaching and developing materials for that subject. One te er, for example, teaches all fourth, fifth and sixth grade social studies; another teaches primary reading. This approach, according to the superintendent, has improved teacher morale, allowed greater flexibility in meeting student needs, and made adjustment to fluctuating enrollments easier.

Several districts employ part time teachers to maintain curriculum breadth. Some of these teachers work part time for the whole year; some work part time for a semester to offer a specialized course. A few districts have switched from a semester to a trimester plan at the secondary level to maintain broad course offerings.

One district contacted for this manual allows two teachers to "split" a full time teaching assignment. The plan preserves jobs and brings a wider range of skills to the district. If experienced teachers share jobs with inexperienced teachers, staff costs can be reduced.

Two small rural school districts in Minnesota share seven staff members, including the superintendent. The purpose is to maintain curriculum offerings and administrative leadership without losing local identity. The kindergarten teacher, for example, teaches Monday, Wednesday and Friday in one district; Tuesday and Thursday in the other district for nine weeks. The next nine weeks, she reverses the schedule. A librarian works mornings in one district, afternoons in the other. Her aide works on the opposite schedule, but the two overlap for about an hour each day so that the teacher can give direction to the aide.

A home economics and an English teacher each teach 7th and 8th grade classes in each district. They also offer a senior high elective course at

one district's senior high in one year, at the other district's senior high the next year. Each of the "shared" teachers is affiliated with a "host" district and gets a full paycheck from that district.

These two districts also move students from one district to the other for 9 week courses which meet for 2 hours at a time. During the coming year, these districts will consider placing students from grades 10, 11 and 12 in one district's high school; 7th, 8th and 9th graders in the other.

The advantages of cooperative staffing for program availability must be weighed against the increase in transportation costs for pupils and for staff and the possible reduction in actual instructional services because of travel time.

Many districts send students to regional vocational centers. In the near future, districts may consider developing regional centers for other course offerings and services that cannot be provided efficiently--or at all--locally.

A minority of the superintendents who participated in planning this manual believe that school district consolidation should be included as a cost-saving option. The opposition of the majority to consolidation is based primarily on loss of community identity. In the next few years, districts will be weighing the advantages of maintaining school-community identity against the disadvantages of providing fewer courses and support services for children. The Minnesota State Department of Education is currently preparing a technical assistance manual on school reorganization and consolidation. It will be available in September, 1976.

CLOSING A SCHOOL

According to Minnesota superintendents, there is no easy way to close a school. The superintendents used phrases like "a sense of community", "community pride", and "local identity" to describe the emotional attachments which make school closings so difficult. Fears about school closings are common even in relatively transient suburban areas; in stable rural areas, where a school is a major social and economic resource, the problem is even greater.

But most districts, faced with major financial problems due to declining enrollment have had to close at least one building. In the future, many more Minnesota districts will have to decide whether or not it is practical and wise to operate schools with low enrollment, high per pupil costs, and limited educational opportunities for children. In other words, is it better to curtail programs and course offerings or to close a school? This section gives some examples of criteria to be used in school closings and some general recommendations on developing community and staff support.

Advice from Minnesota Superintendents

Minnesota superintendents whose districts had already closed a school observed that:

- The process requires at least two years of advance planning.
- All concerned community members should have a chance to voice opinions and make recommendations.
- The decision should be based on objective data such as a) enrollment projections; b) cost per child of operating the building; c) probable savings; d) results of facilities analysis; and on subjective judgments about staff unity and strength of community ties to the school.

- Cost-savings from closing a building are not as great as expected the first year and so must be examined in three to five year perspective.

- Early participation by teachers and principals and especially by the unofficial "leaders" in a building is the key to relatively smooth school closings; joint staff meetings between "sending" and "receiving" schools are important.

- The issue of what to do with the facility should be discussed separately from the school closing itself.

- Definition of new boundary lines is important.

- The actual school closing should take place as soon as possible after a decision has been made.

- The superintendent and board should be jointly and publicly committed to a school closing decision so that there is no later appeal to one or the other.

Establishing Criteria for School Closings

If there is a choice about which of several schools to close, a citizens' committee may establish criteria for school closings.

Figure 28 lists some common assignments for a citizens' committee established to study school closings. It is from a report of the Educational Facilities Laboratory entitled Fewer Pupils/Surplus Space, May, 1974, a document which contains useful advice on projecting enrollments as well as on closing schools.

FIGURE 28

COMMON ASSIGNMENTS FOR CITIZENS' COMMITTEE ON SCHOOL CLOSINGS

1. a. Project enrollments (although this seems more appropriate for a technical staff).
   b. Visit the schools.
   c. Determine capacity and rate schools.
2. a. Set up criteria for closing any school.
   b. Recommend which schools should be closed.
   c. Report on savings from and any added costs of closing.
   d. Establish a priority for closing.
3. a. Recommend subsequent uses.
   b. Find possible takers.
   c. Search out legal constraints.

The next few pages provide a detailed example of criteria for analyzing elementary schools developed by a Committee for Development of Weighted School Closing Criteria in one Minnesota district. The system they established is as follows.

A. Student, Staff and Community Factors

	Weight
Displacement of Students	10
Educational Program	7
Anticipated Attendance Area Growth	7
Community Use and Support of School	6
Staff Displacement and Disruption	5
School/Neighborhood Geographic Relationship	5
Proximity to Secondary Schools	5
Historical Value of Location	1

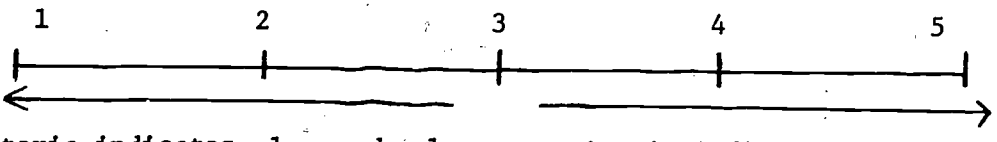
B. Physical Facilities Factors

Special Supportive Facilities	9
Classroom Facilities	7
Life Safety of Building	7
Site Size and Condition	7
Building Capacity	6
Building Condition	6
Adaptability to Remodeling and Expansion	6
School Site Location	4

C. Financial Factors

Maintenance Cost/Square Foot	6
Operation Cost/Square Foot	4
Transportation Cost/Pupil	4
Fixed Costs/Pupil	3
Mothballing Costs	3
Alternate Use as District Facility	3

To identify the particular building to be closed, the committee suggests that a five point rating scale be used in applying each of the weighted criteria to each of the existing elementary school buildings. Application of the rating scale is diagrammed below:



Multiplying the criteria weight times the assigned rating will yield products which, when summed, will indicate that the school to be closed is the school with the least sum.

Further definition

A. Student, Staff and Community

1. Displacement of Students - the number of students displaced by building closing, the "ripple effect," perimeter versus centralized building closing.

2. Educational Program - the existing educational program is to be evaluated through a conference between the administrators applying the criteria with each building principal and representative staff.

3. Anticipated Attendance Area Growth - the potential growth in numbers of students in a particular area as judged by the amount of undeveloped land, current zoning, area's current and future types of housing, population characteristics, remaining schools' ability to accommodate growth or continued decline.

4. Community Use and Support of School - the amount of use of the school facility by the community, demonstrated parent interest and involvement in school activities, community efforts in school projects, PTO/PTA involvement, etc.

5. Staff Displacement and Disruption - the number of relocations and amount of disruption of staff in closed building, the stability and longevity of building faculty.

6. School/Neighborhood Geographic Relationship - the physical makeup of the attendance area, accommodation of "natural" neighborhoods, neighborhood school concept, the school tradition and school "family" feeling, consideration of eventual closing of another elementary building.

7. Proximity to Secondary Schools - closeness to secondary schools for sharing of facilities, secondary students assisting at elementary level.

8. Historical Value of Location - the school's proximity to or location in historical setting, access to historical sites.

B. Physical Facilities Factors

1. Special Supportive Facilities - the number, size and adequacy of special facilities such as physical education stations, music and reading rooms, resource centers, teacher work rooms, lunchroom facilities, etc. Also, carpenter shop, storage space and other special non-instruction related facilities.

2. Classroom Facilities - features of classrooms such as size, heating, lighting, appearance, arrangement, "comfort," etc.

3. Life Safety of Building - fire safety, conformance to present and future code regulations (electrical, fire, ventilation and handicapped), type of construction, single versus multiple story building, etc.

4. Site Size and Condition - the size of school site, maintenance needed on site (lawns, sidewalks, parking lot, playground facilities, etc.)

5. Building Capacity - consideration of building capacities as related to projected short-term and long-term enrollment projections and enrollment/capacity analyses.

6. Building Condition - the age and future useful life, planned building improvements, short-range and long-range maintenance requirements.

7. Adaptability to Remodeling and Expansion - the ease with which a building can be remodeled or expanded to accommodate changing educational program requirements.

8. School Site Location - access to school, location relative to highways, bridges, creeks, residential versus non-residential setting.

C. Financial Factors

1. Maintenance Cost/Square Foot - custodial/maintenance salaries, maintenance supplies, snow and refuse removal, security, maintenance equipment.

2. Operation Cost/Square Foot - electricity, gas, water/sewer and telephone.

3. Transportation Cost/Pupil - the total cost of transportation per elementary student assuming each of the different schools were to be closed.

4. Fixed Costs/Pupil - the fixed instructional salaries other than classroom teachers on a per pupil basis by building.

5. "Mothballing" Costs - the costs of mothballing a building (utilities to be maintained, site maintenance, boarding windows, security, etc.)

6. Alternate Use as District Facility - the use of closed building as district warehouse, office area, portions of building used (physical education stations, resource centers, etc.) while classrooms closed, etc.

After the Board of Education had approved the system, the data were collected, criteria applied, and composite weighted scores for each building were prepared. The school with the lowest composite score was closed.

A less complex example of criteria for selecting a school building to be closed developed by a citizens' committee in another Minnesota district is included here.

1. Closing a building that can be recycled--feasibility for resale, lease, alternative use, rezoning.

2. Closing a building because of facility condition--age, flexibility, renovation need.

3. Closing a building on the basis of present/capacity enrollment--numbers of students enrolled compared to capacity of building.

4. Closing a school on the basis of comparative academic programs. Some school buildings in the district may have academic strengths which have been developed in a period of time and may have advantages because of their unique location (in nature area).

5. Closing a school because of geographic location--population density, major physical barriers, transportation.

6. Closing a building on the basis of cost of energy expended per square foot for the last five (5) years.

7. Closing a school on the basis of a numerical rating of each elementary building in determining its value as an efficient and effective educational facility.

8. Closing a school on the basis of predictive population factors--business developments, multiple housing, population booms.

9. Closing a school on the basis of future alternative school programs--integrated elementary and junior high programs.

10. Closing a school on the basis of community acceptance--need for considerable communication and interaction on a planned basis.

11. Closing a building on the basis of site desirability--size of recreational areas.

Involving Board, Staff, and Community

The following few pages about widespread involvement in school closings are from a Report of the Illinois Task Force on Declining Enrollments in the Public Schools (December, 1975, pg. 38-43).

For more information on the same topic (including a school closing checklist and a survey to study the closing of a small elementary school), see the American Association of School Administrator's Executive Handbook (Series #2) titled Declining Enrollment: What to Do (1974).

Groups to Involve

1. School Board: As the policy makers for the school district, the school board should be as aware of the issues and as active as the administrators in involving the community in the identification and solution of the problems associated with declining enrollments and surplus space.

2. School Personnel: At the time the school board and administrator are prepared to involve the community, school personnel including principals, teachers, teacher-aides, and students should simultaneously be made aware of facility issues through direct communication and be invited to participate in the problem-solving process.

3. Citizens' Committees: One way to involve interested citizens is to have them serve on an advisory council, citizens' committee, or task force to assist in studying the problem, collecting important data (possibly through community surveys), disseminating information to the community, and making recommendations for the school closures. One important factor is that any citizens' committee dealing with school closure must be representative of the major groups in the district. Those districts who use only citizens from the attendance area of the school should not be surprised to find a unanimous citizens' committee report recommending keeping the school open forever. The more narrow the committee make-up, the more limited the options considered.

   Part of the administrator's responsibility is to build public confidence that all major issues relating to school closures have been carefully thought out and adequately covered, i.e., street crossing hazards; busing costs and

new routes; preservation of the neighborhood school; decline in property values; future care and use of the closed facility; status of school personnel and others.

If the community feels that the situation is in capable hands (especially if the citizens themselves are involved), an administrator will be faced with far less trouble and fewer complaints. Thus, the administrator ought to keep the public informed and involved as different phases are begun and completed.

4. Outside Consultants: Outside consultant can be very helpful to the local board. They should be selected for competency, objectivity, and ability to build trust. Their study should be thorough with excellent documentation, charts, media, etc., for effective communication to the various concerned groups.

Public Hearings

Rather than just one public hearing, the school district should consider having a number in order to be representative and effective. School closure is a process, not a one-shot attempt, and thus public hearings should correspond to the various phases of school closing. Task force members have identified a number of recommended procedures pertaining to public hearings. They are:

1. Usually it is unwise for a board to vote on a school closure issue the same night as the public hearing.

2. The public hearing must avoid the appearance of hasty decisions. The relationship between loss in enrollment and fiscal problems needs much public consideration prior to and with the issues of school closing.

3. The sequence of the agenda at the public hearing is important. Task force members recommend the following procedures: First, there should be the presentation of research and findings by the consultant and/or study group with the specific recommendations. Second, the superintendent of schools should present a specific written recommendation on the school closure. Third, the board president should open up the hearing for citizen participation. Fourth, the board, superintendent, and staff should respond to appropriate citizen concerns in an unemotional, objective and dignified manner. Fifth, the board president should then open up the discussion of the recommendations to the board of education. Sixth, in this or a subsequent meeting, as determined by the board, a board member will make a specific motion to:

a. dissolve the attendance area of the school to be closed by a fixed date;
b. have the given school be permanently closed as an educational facility by a fixed date;
c. approve recommendation to reassign students from the closed school to new attendance areas;
d. authorize the superintendent of schools to take preliminary steps to lease or sell school property.

Seventh, there should be a vote by the board of education on the superintendent's recommendation.

The Interests and Concerns of Various School Groups

The major concern in school building closings has to be the people involved--parents, teachers, principals, children, and board of education. All have contributed in the past, and all have a stake in the future. Each has interests to protect, but each has concerns for the well-being of the children and the community as well.

1. Parents: The staunchest school supporter and most zealous educational advocate is the parent who may have spent years building a good reputation in the local schools. Often a parent has, over the years, carved out a sphere of influence and general acceptance for his or her school-age children and has expended personal resources at P.T.A. functions and other school activities. The parent has volunteered in the classroom, headed up after-school activity clubs, and has invested time and effort while simultaneously meeting a variety of psychological-emotional needs.

   When parents view local school closings, they see the threat of losing this personal investment and having to begin all over again in the process of building reputation, influence and acceptance in a new school.

2. Teachers: Just as parents are motivated by personal needs, so are teachers. Teachers may resist a school closing because of the possibility of a loss of job. For those teachers who will be transferred to other buildings, it will mean that they will have to reestablish themselves in a new setting. They will be concerned about their acceptance by a new neighborhood, by the existing faculty, and probably by a new principal.

3. Children: Children are affected by school closings in many ways. Like their parents and teachers, they will be apprehensive of the changes they will meet in the new building, the possibility of a new principal, the unknown teachers, and the "already-there" children. Experience

has shown that children generally adjust readily to new situations and most will do so in a new school. Building principals of the receiving and phased-out buildings are in the best position to alleviate students' concerns.

4. Principals: Principals and other administrators are not always in full support of a school closing. Principals may be losing all or part of a staff with whom they have developed a working rapport, a staff which recognizes and acknowledges their sense of priorities in curriculum, building behavior, and instructional style. In effect, they run the risk of having to create once again a reputation should they be transferred to a new school with a new staff of teachers. One effective way to help the principal alleviate concern is for the board of education to have a policy that, should another administrative position not be open and the principal is assigned to a teaching position, the individual will be given the first opportunity to take a new administrative position if he or she desires to return to such a post.

5. Board of Education: Board members expend considerable energies protecting the leadership positions they have built as elected public officials. There is always the possibility of having a well-established school board reputation as well as reelection possibilities shattered due to the emotions and conflicts surrounding the planning and management of school closings.

6. Community: Closing a school is a much more difficult community relations problem than building and opening one. A proposal for closure usually brings out vested interests and hostilities. When citizens learn that their school district is considering closing one of its facilities, the implication is retrenchment, future trouble, a declining neighborhood, and more. In a rural area especially, school closure signifies the decline of the community and its culture.

   If school districts decide to close some of their facilities, new boundaries will have to be developed. With these changes, students may be mixed with other students from a very different social, economic, and ethnic background. For many individuals, this integration of persons will cause stress and tension as values and behavior conflict. Deep seated resentments may develop if an administrator does not handle the situation very carefully. Such feelings will usually not be discussed openly by the community since it seems inappropriate and "un-American" to

differentiate among people. But, an administrator must be aware of such possible attitudes and hostilities and perhaps will decide that the best way to handle the situation is to bring such feelings into the open so they can be overcome through honest and open discussion.

In addition, if administrators and school boards begin to "cut" expenses and consider school closings, parents often react with the feeling that "the district is more interested in fiscal concerns than the students and their education." As a result, school administrators must continue to stress that in order to maintain the high level of educational quality in a time of inflation and declining enrollments certain expenses must be cut. A case needs to be made that quality education and fiscal stability are mutually compatible, rather than mutually exclusive.

REFERENDUMS AND COMMUNITY INVOLVEMENT

Suggestions for planning referendums and for community involvement are considered in one section because preparing for a referendum requires so much community participation and awareness. The sections on school closings and on developing economies in the system contain more ideas for community involvement. Another good source on this topic is the AASA Executive Handbook (Series #2) Declining Enrollment: What to Do.

Making Data Public

A referendum requires a major public information effort. As one Minnesota superintendent put it, planning for a referendum means giving citizens a "mini-course in school finance." In addition to providing basic information about the school district's enrollment and financial situation, most districts have prepared simple publications and overheads containing data on comparability of the district with others of similar size and in similar regions, costs of specific programs, and historical trends in the district.

For public information purposes, most comparisons show the school district's rank on factors such as:

- staff per 100 students
- average class size
- net current expenditure per pupil unit for instruction
- administrators/1000 students
- dollar expenditures per pupil unit
- dollar expenditures for salaries

- percent net current expenditure for salaries
- mills--total school tax levy
- ratio of teachers to administrators
- ratio of teachers to non-classroom professionals

Unit cost data published by districts includes: 1) cost of non-mandated programs (elementary physical education, for example); 2) cost of supplemental pay (for coaches, class advisors, building chairmen, etc.); and in some cases, 3) salary information. The more "open" the school district is about program costs, the better.

Some districts also publish interpretive data and historical trends in finance, enrollment, and staffing patterns to highlight current district problems. One system, for example, compared teaching staff configurations (percent at step 1 and at step 12) in 1970-71 and 1974-75. This district--and others--also published a specific list of budget and staff reductions which had been made during the period preceding the referendum.

Developing Support and Using Media

In preparing for a referendum one Minnesota district asked for volunteers to serve on a School Information Volunteer Committee. (The superintendent advised against "hand-picking" a "blue ribbon" committee because citizens resent having "bankers and doctors" tell them what to do.)

School staff spent a great deal of time telling the committee about the financial needs of the district and the alternatives to a referendum. The twenty-six committee members, plus the school administrators, gradually developed into an informal "speaker's bureau", speaking to service clubs, civic groups, and coffee parties. The committee also recruited neighborhood helpers to launch a door-to-door information campaign.

The school district and the committee made a special effort to reach retired people and to remind them that their taxes were "frozen." Senior citizens visited the public schools as luncheon guests; students, staff, and volunteers visited senior citizens' centers.

School staff prepared two sets of questions: one for School Board members to answer (on tape for radio use); the other for members of the School Information Volunteer Committee. The School Board's questions and answers also appeared in the local paper over a 10-day period before the actual vote. Examples of questions and answers from two Minnesota districts appear at the end of this section. During the last two days before the vote, the superintendent held a "radio and T. V. blitz", allowing citizens to phone in questions. The superintendent felt the "open mike" approach was very effective in increasing district credibility.

Finally, the School Board made a written commitment to limit the life of the tax increases approved in the referendum.

The approach described above "worked" in one community, but not in a neighboring district. Even in the latter district, the effort to increase community awareness paid off. Parents and staff accepted necessary program cuts and staff reductions with relative equanimity. On the other hand, one district found that after a successful referendum, it was difficult to make budget reductions that were necessary in spite of the increase in revenue.

This manual continually emphasizes the importance of community participation; three sections refer to the use of community advisory groups. For a guide to organizing and using such groups, see an article titled Planned Community Involvement in School Decision-Making, Minnesota School Board Journal, April, 1972.

Sample Questions and Answers Prepared by Minnesota School District A Before a Referendum

1. Q. What is meant by the State Foundation Aid Formula?

   A. There is no simple explanation due to a complex formula that is used as it applies to each school district. Prior to 1971, local property tax was the single largest source of school income, but this was replaced in that year by State funds commonly known as Foundation Aid. This sets the level of basic financing from State and local sources and purposely attempts to equalize for the difference in property wealth among school districts. Simply stated, the richer the school district in property values, the less per pupil is paid by the State to that school district. Conversely, the poorer the school district in property values, the more per pupil is paid. Other factors that affect the total amount received by a particular school district are the number of children from AFDC families, districts experiencing declining enrollments, and districts experiencing an increase in enrollment rate over 4% per year. In accordance with the set formula, our school district did receive $783.96 per pupil unit in 1973-74. We will only receive an increase of $37.00 per pupil unit for 1974-75--a far cry from the amount needed just to keep pace with spiraling inflationary prices.

2. Q. If the 1975 legislature changes the present State Foundation Aid Formula, will the special levy be necessary?

   A. Yes. Any change in the Foundation Aid Formula will not affect the school district until 1976. In this case, the levy would be necessary for the 1975 school year.

3. Q. Will the school district receive any increase in funds over the 1973-74 figure from the State of Minnesota?

   A. Yes. We will receive an additional $37.00 per pupil unit in 1974-75. This amounts to $207,496, or 4.7% increase in the general fund. However, inflation has made its mark, and this will fall considerably short of providing the funds we will need in order to continue only our existing program of education.

4. Q. Why does not the State of Minnesota provide these necessary funds?

   A. New legislation was passed which froze the amount we receive to a figure based on our 1970-71 average per pupil cost--$658.96. The State median was $662.00, so we were low due to our very well and conservatively-operated school district. In the 1973-74 school year, our per pupil cost in the general fund was $783.96. In the year 1974-75, we will receive only an additional $37.00 per pupil (4.7%) from last year, and this <u>will not</u> cover our increased costs of operation. Therefore, the responsibility to raise the additional funds necessary is up to our school district and we the people.

5. Q. Is School District A the only district with this problem?

   A. No. The present State Foundation Aid Formula adversely affects 15% of other medium expenditure districts in the State.

6. Q. What are other school districts in our State doing about this problem?

   A. There are school districts which have been adequately taken care of by State legislation and do not have this problem. The "high expenditure" districts receive enough additional State funds to permit their budgets to balance. Some "average expenditure" school districts, such as ours, have a financial shortage in the general fund. Some districts will take a "wait and see" approach; others will attempt to borrow against future tax receipts if they have done so in the past; some may make drastic cuts in school programs, thereby lowering education standards; others will present a Levy Referendum to permit the voters an opportunity to provide the additional funds by increasing the mill rate. The School Information Volunteer Committee of our school district has unanimously chosen the Levy Referendum alternative, and the School Board concurs with this approach.

7. Q. Is any effort being made to make the legislature aware of the problem our school district is facing?

   A. Yes, the Board of Education, school administration, School Information Volunteer Committee and A.E.A. are all pledged toward working to get the Foundation Aid Formula changed during the 1975 legislative session. The help of residents of the school district by writing to your legislators and candidates would be of great value, also.

8. Q. How long will the levy be necessary?

   A. Hopefully, the legislature will change the State Foundation Aid Formula and the additional money will be available in the future. The Board of Education, in its statement of intent, has promised to discontinue the levy at the earliest possible date.

9. Q. In asking for this money through a tax Levy Referendum, aren't we saying the State legislature is wrong or has not been doing its job in supplying the necessary money needed?

   A. Certainly not--even individual legislators would tell you they had not anticipated the inflationary trends we are going through. Inflation is the main reason for this shortage.

10. Q. With the recent inflationary problems increasing costs, won't the legislature automatically compensate for this in the 1975 legislative session?

A. No one can be sure what the legislature will do in this regard. Many financial problems will confront the next legislative session only one of which will be funding the State's public school system.

11. Q. Will this money be used for building or remodeling schools?

A. No. As you are probably aware, our School Board has already postponed the proposed remodeling of administration offices. The entire amount of funds being voted on will be used strictly to pay operating expenses.

12. Q. You say that the only way our school system can continue to operate is by acquiring more tax dollars directly from this district. Do you really believe the State legislature would not give aid rather than watch us close our school doors?

A. We have been led to believe it would not be wise planning to anticipate an unknown factor. We have no reason to believe the legislature will respond soon enough.

13. Q. When I was a kid, we, or rather my parents, had to pay a rental fee for needed school books. Why don't we do that anymore. Wouldn't this help reduce costs?

A. Through taxes, it has been hoped that the costs for public education could be paid. The less additional costs, the better. One of the basic principles of tax-supported public education is to provide enough resources to insure equal educational opportunities. As of July, 1975, student fees will be illegal to be charged, with exceptions being: a) Driver Education (for which there is no State aid reimbursement); and, b) Extra projects done in vocational courses above that required as a basic part of the course (additional materials needed for wood-working, home economics, metal work, electronics, etc. that are special projects).

14. Q. If we cut out all outside extra-curricular activities (athletics, music, etc.), how much money would our school district save?

A. $208,160--less than 4% of our total general fund budget.

15. Q. Could we raise the cost of noon meals to the students and make a profit from this to help reduce operating costs?

A. No. School districts are restricted by Federal regulations from making a profit on the school lunch program. Also, this has no impact on the general fund with which we are concerned.

16. Q. Does the school district have any land holdings not being used that could be sold to raise the needed money?

A. Future site acquisitions by the Board of Education have always been a prudent investment practice in line with long range planning and growth requirements. Proceeds from properties owned by a school district, if sold, must be returned to the capital outlay fund to replace those receipts from which the money came. This money could not be used for general operating expenses.

17. Q. If the Levy Referendum is not passed, will families have to provide their own transportation to school?

A. No. Transportation is a separate area of the budget and is not affected by and is separate from the general fund.

18. Q. Can the school district vote to transfer funds from other accounts to the general fund to make up a shortage?

A. The Statutes of the State of Minnesota are very specific in the allocation of funds for particular uses and do not permit transfers between accounts or funds.

19. Q. Can the school district accept gifts, grants or endowments and use the money for expenditures in the general fund?

A. Yes. However, persons leaving sizeable estates historically have had their favorite charities or projects to which they have chosen to direct their gifts. Although school districts can be the recipients of such gifts, this is rarely, if ever, done.

20. Q. You read or hear of some school districts receiving special government money for certain programs. Does our school district get any of this?

A. We have received some money from Federal sources. We did participate in the Careers Awareness Program. However, any grants so made must be used entirely for equipment and direct program costs. These funds cannot be used for any other purpose or programs. Therefore, we would receive no assistance to our problem from this source.

21. Q. What will take place if the Levy Referendum on September 24 does not get approved?

A. The Board of Education and Administration of our school district will have the unpleasant task of considering additional elimination of programs or cuts in all programs. This will have a definite and long-lasting effect on our quality of education. Some programs or areas that would be affected are:

- increase in average class size;
- cuts in all music programs;
- cuts in athletic programs;

- reduction in other extra-curricular activities;
- cuts in special education programs for students with particular problems in speech, reading, vision, etc.

This would not be a matter of choice but, rather, a must if the additional funds are not approved through the Levy Referendum.

22. Q. Will programs and personnel really be cut if the levy fails to pass, or will other means be found to keep our present quality of education?

A. Beginning with the 1975 school year, a reduction in program will be necessary. The general fund will be in the red by the end of June, 1975.

23. Q. How soon can the cuts in programs be seen and become effective?

A. Some cutbacks will be made during the 1974-75 school year. Major cutbacks will have to be made during the 1975-76 school year.

24. Q. What relationship does the Levy Referendum have to our present teacher contract negotiations?

A. The teacher contract that is presently being negotiated does not have a direct bearing on the tax Levy Referendum vote, as the contract is for this school year and the referendum for the 1975-76 school year.

25. Q. If the tax Levy Referendum passes on September 24 and the legislature solves our financial problem, what becomes of the additional 5.3 mill levy?

A. If the legislature does, in fact, increase funds to the school district, no one knows how much this might be. We still may need some of the money secured as a result of the referendum. The exact amount would be determined by the School Board. It is the intent of the Board to remove the levy as soon as possible, as this is a temporary solution to our problem. We look to the legislature for a long range and permanent answer.

Sample Questions and Answers Prepared by Minnesota School District B Before a Referendum

1. Q. Why does the school have a need for a special tax referendum?

A. Because increases in total dollars available to our school through state aids and local revenues have not kept pace with current rates of inflation. While inflation has occurred at the rate of 10-14 percent per year for the past three years, state aids have increased at about four percent per year and local property taxes for school purposes have decreased. In addition, declining enrollments have reduced state aids each year.

2. Q. Why didn't the school district have a larger cash reserve to meet this situation?

   A. The philosophy of the Board of Education has been to levy only those dollars that were required to operate the school on a year-to-year basis with only enough cash reserve to avoid the short time borrowing of money to meet monthly bills. They believe it is far better to let the taxpayer have the use of their own money than to over-levy and carry large cash reserves for investment purposes and to serve as a hedge against inflation. Also, the high rate of inflation during the past three years was not anticipated. Now the school has need for more financial support and the Board of Education is asking the voters for that support.

3. Q. Were there other factors that added to the problem?

   A. Yes. Each year the State of Minnesota makes two payments to all rural school districts to make up for local tax revenue lost because of the 8.33 mill differential on agricultural lands. Two years ago the State Legislature withheld one of the two payments in an effort to balance their books. The district lost 20,000 dollars in state revenue due to this action and our cash reserves were eliminated.

4. Q. If our school has declining enrollments can we reduce the number of teachers accordingly?

   A. Not necessarily so. Enrollment declines are usually spread over the 12 grade levels. Thus, a decline of 30 students would not necessarily mean that one staff position could be eliminated. We now have one teacher for each program offered; a cut of staff would mean a cut in program.

5. Q. What attempts have been made to reduce spending and economize at the local level?

   A. Two teaching positions at the elementary level have been eliminated in the past three years. Also the elementary principal's duties have been assumed by the present administrative staff. In addition, spending for other budgetary items, such as textbooks, teaching and custodial supplies and other areas have been cut back, or increased less than increased costs would warrant which in effect brings about a cut in the things purchased.

6. Q. Why not eliminate the teacher aide positions from the elementary classrooms?

   A. The teacher aide positions in the elementary classrooms are a part of our Title I program and are paid entirely with federal dollars. In other words, this action would cause a reduction in services to students with no decrease in demand for local tax dollars. Federal Title I dollars cannot be used for services or programs which are normal function or responsibility of the local and state levels.

7. Q. Will additional efforts to reduce spending be made next year?

   A. Yes. The total educational program is being reviewed to determine other areas where further economies can be made without seriously hampering the quality of educational programs. In addition, Board Policy concerning charges for use of facilities and services, passes issued and other admissions policies will be studied and changed where appropriate. However, the Board must meet state requirements and deal with any new programs or services mandated by the State Legislature.

8. Q. How much will taxes be increased if this referendum passes?

   A. The number of mills required would be _____ mills. In other words, there could be an increase of about ___ for each $1,000 of assessed valuation less additional homestead credit allowance of up to one-third of this increase.

9. Q. What is the current assessed valuation of a typical home in town or a quarter of land in our school district?

   A. Homes in town generally range in assessed value from between 4,000 and 6,000 dollars depending upon size and age. Therefore, a typical home would experience a tax increase of from ___ to ___. A quarter of land in our school district will generally range in assessed value from between 13,000 to 19,000 dollars depending upon location and quality of land. Therefore, a typical quarter of land would experience a tax increase of from ___ to ___.

10. Q. What property is entitled to Homestead Credit Allowance?

   A. Residences in town which are lived in by the home owner and farm homes lived in by the owner plus up to 120 acres of land on the home quarter are entitled to the Homestead Credit Allowance.

11. Q. Is this the only increase that local property taxes will make this year?

   A. No. Local property taxes are based upon the combined total dollar requests from the County, School District, special such as the Watershed District, city or township governments. Increases or decreases in the dollar requests from any level will affect the amount of taxes assessed against property. Also, whenever local assessments are increased, the state equalization principle requires a proportionate increase in local property taxes and a reduction in state support aids. Since mandatory levy limits began three years ago, educational levies decreased 10% in 1972 and 2 or 3% in 1973. Now the District is seeking a 10% increase.

12. Q. How long will this increase in taxing authority run?

A. Authority to levy up to ___ dollars above state maximums will continue in effect until repealed by the voters or the Minnesota Legislature. However, the Board of Education does not have to levy this amount if state aids are increased enough or if the situation changes and the additional monies are not needed.

13. Q. How long will this increase provide a solution to our financial crisis?

A. It is anticipated that this increase will allow for the continuation of educational programs and services at the same level of support in the future as at present. However, present cost trends make this a very difficult thing to predict.

14. Q. What is the maximum homestead credit allowance?

A. $325 per year for each homestead. Your tax statement shows the current reduction from total tax liability granted for homestead credit allowance.

15. Q. What percent of homesteads are now receiving maximum homestead credit allowance?

A. According to the county assessor about 90% of farms and about 65% of homes in town.

16. Q. What about taxes for senior citizens?

A. Evaluation on property and homes (with no more than one acre) will be frozen at what it was when the individual reached age 65.

17. Q. What is the vote requirement for passage of the referendum?

A. 50% plus one vote of the votes cast must vote in favor of the question before the Board of Education receives authority to make the additional levy.

18. Q. What happens if the tax referendum fails to pass?

A. In the event that the tax referendum fails to pass, the Board of Education would be forced to reduce spending by approximately $30,000 next year. In order to accomplish this, instructional and operational supplies, fuel reserves and other items would be exhausted and not replaced. In addition to this, all of the educational programs would have to be studied in order to arrive at decisions which would effect the necessary savings. This may, and probably would, result in cuts in the present program.

19. Q. Could the issue be revoted upon in the event that it should fail to pass?

A. A tax referendum issue can be brought to a vote only once in any one school year.

20. Q. When would first taxes from this referendum be paid?

A. 1977 (July payment) 1976 taxes payable 1977.

CONCLUSION

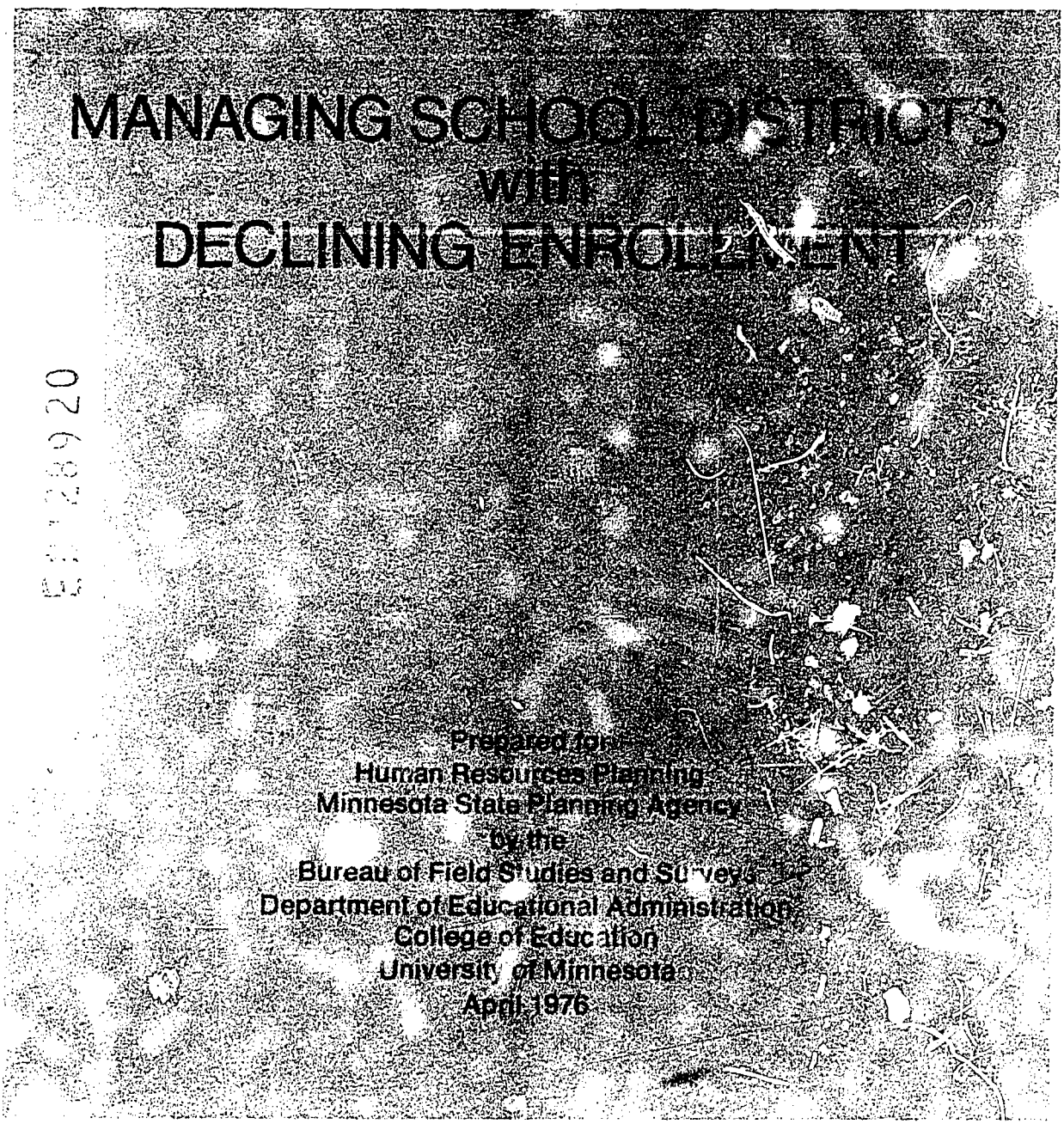
As the introduction states, one purpose of this manual is to outline what a district needs to know about itself before it begins to plan for declining enrollment. Experience in preparing the manual suggests that most, though not all, districts have the relevant facts--the data--in one form or another or that they are at least aware of the need for the data. Of importance here is that the data is usually not compiled or presented--nor are the implications spelled out--in a manner that demonstrates the full depth of the problem to board and community or that stimulates interest in planning.

One proposal for the design of this manual was to create a model of how to plan for declining enrollment--including a series of "fill-in-the-blanks" worksheets for a district to complete. The proposal was rejected for two reasons. First was a concern that school boards and community groups might hold administrators responsible for following the model exactly. Second was the difficulty of finding exemplary charts and formats for summarizing and reporting the analysis of some data basic to planning. The examples included in the manual were the best that could be found from among those provided by about fifteen school districts which had already done extensive planning for declining enrollment. A wider search would have uncovered more, or perhaps better, examples. Still, it seems fair to conclude that Minnesota school districts need to put more emphasis on communicating information about enrollment decline clearly and concisely. To do so will help convince the public about the urgency of the problem as declining enrollment begins to affect secondary schools and about the need for community participation in finding solutions.

CASE STUDY NUMBER

1

SCHOOL DISTRICT A
A METROPOLITAN-SUBURBAN COMMUNITY



FOREWORD

These case study materials were prepared to assist school officials and interested citizens in dealing with problems associated with enrollment decline. The case study approach is most useful in dealing with complex problems where several solutions are possible and one "right" answer is not implicit in the data.

The subjects in these case materials are actual districts in Minnesota. The districts were selected because their enrollments had declined at least ten percent or 100 students from 1970-71 through 1974-75. Secondly, the districts were chosen as being representative of differences in size and community background. None of the cases are offered as complete studies of the districts involved. While real data and management actions are reported, the cases themselves were written as study materials intended to stimulate discussion and not to present a complete report on the selected district. Fairly extensive data were included in the materials when available because of the authors' conviction that planning for declining enrollment must be data based. While there is much similarity in the nature of problems among the five districts, important differences do exist.

The Bureau of Field Studies and Surveys and the State Planning Agency wish to thank officials in the local districts and the Minnesota Department of Education who generously gave of their time and talent in providing information for the case study materials.

EXECUTIVE SUMMARY

District A had many characteristics of the stereotype suburban pacesetter in post-World War II public education. Growing enrollments, new buildings, a progressive staff, strong community support and extensive resources were all present. In 1970-71 the enrollment dropped for the first time in many years. The decline in enrollment added to concerns brought about by the Omnibus Tax Law of 1971 which sought to equalize educational opportunity across the state by limiting expenditures in high cost districts like District A and increasing state aids to lower expenditure districts.

The District began to plan for retrenchment. Forecasts of enrollment, revenue, expenditure, plant utilization and unit costs were prepared. An advisory committee representing citizens, teachers and administrators was appointed to advise the Board of Education on cutback decisions. Legislators were made aware of the District's problems in complying with the equalizing intentions of the new law. Enrollment decline became a trend and compounded with the other retrenchment problems. The extent of the enrollment decline is indicated by the fact that K-12 enrollments dropped from 10,480 students in 1969-70 to 9,119 students in 1975-76; a drop of 1,361 students or about 13 percent. Results of five-year planning efforts indicated a grim future of several years with "tentative" deficits and corresponding cutbacks above one million dollars each year.

The District moved in two directions. First, it sought to maintain a balanced budget with a minimum impact on educational program. Secondly, it participated in efforts to obtain legislative relief from

expenditure constraints that would place the District in a fiscal crisis. In maintaining a balanced budget, the District developed budget reduction and building closings procedures which have been adopted by other districts. While the planning techniques were effective, the decisions they gave rise to were not without anguish. To date the certificated staff has been reduced by at least 75 positions and two elementary schools have been closed. More positions are yet to be cut and more buildings will be closed.

The District was able to obtain some relief in the form of increased aids and adjustments to the "grandfather" levy. Some of the assumptions underlying the earlier planning efforts changed because it was not functional to plan beyond a two-year time horizon when reliable data were not available. The results of District A's efforts include program reduction, a balanced budget, and a plan for personnel development to offset the pessimism associated with retrenchment.

CASE STUDY NO. 1

The School District

School District A is located in a suburban community in the metropolitan area. The District covers 26 square miles and has a total population of 15,000 people. Parts of seven communities comprise School District A. The District has enjoyed a reputation of being an educational pacesetter in the metropolitan area. Its extensive educational program and quality staff made it a high expenditure district for state aid purposes. Its 1970-71 adjusted maintenance cost per pupil unit was $923[1] compared with a state-wide adjusted mean of $663.

Actually, District A first encountered the need for fiscal retrenchment as a result of the Omnibus Tax Law of 1971 which sought to equalize expenditures among the districts of the state. The effects of declining enrollment followed closely behind the first problem and the two became intertwined.

Total K-12 enrollments were growing through 1969-70 when they peaked at 10,48 tudents. Six years later enrollments had declined to 9,119 students; a drop of 1,36 students or about 13 percent.

The District operates o senior high, three junior high and seven elementary schools. The instructional program is organized on a K-6-3-3 basis. Modular scheduling was adopted at the senior high school level in 1967-68 and a fluid-block schedule was instituted in the junior high schools in 1972-73. The Districts has used Computerized Achievement Monitoring (CAM), Teache ppraisal (TSA) to improve teaching

[1]Source: Accounting Memo No. 1, State Department of Education.

and learning performance. The 1975-76 staff consisted of 510 certificated employees and about 230 non-certificated personnel. District A would normally be considered a relatively wealthy district, but spending limitations under the present school finance structure limits access to those resources for education.

The Community

The community served by District A is really a composite of parts of seven suburban municipalities. The core community, from which the District draws its name, existed with a distinct small-town identity before suburban sprawl surrounded it and made it an integral part of the metropolitan area. The school community is changing. While it is primarily populated by middle and upper-middle class families in single family dwellings, the numbers of apartments and single parent families is increasing.

The community has a diverse economy which is an integral part of the larger metropolitan community. Major employers within the School District community are engaged in food distribution, farm machinery and other industries. Unemployment is low.

The school community's location in the metropolitan area provides access to a wide variety of social, cultural and educational opportunities. The educational level of the community is high and approximately 65 percent of the high school graduates go on to college while another 10 percent enter vocational training.

Elementary Program

The District-wide curriculum for all students in grades one through six in District A including reading, mathematics, penmanship, social

studies, science, spelling, health, physical education, art and music. Each of the seven elementary schools has a part-time speech teacher and Special Learning and Behavior Problems (SLBP) classes with three schools operating cross-age tutoring with SLBP. Four schools have Title I programs. Emphasis on the arts ranges from individual teacher emphasis to school-wide band, orchestra and choirs.

Classroom organizations at the elementary schools include combinations of multi-age groupings, departmentalization, team planning and teaching, self-contained classrooms and the sharing of a classroom by two teachers. Various instructional modes are used in combination at the elementary level including: individual students' contracts, used especially in math; student-teaching-student including cross-age tutoring; stations in math and reading; lecture; group instruction; and goal setting. Elementary students are evaluated on a number of factors and rated "satisfactory," "needs to improve," or "shows improvement." All of the schools have parent volunteers, student teachers and student aides.

Junior High Program

The junior high program is on a fluid-block schedule. A large group of students are assigned to a team of teachers for a block of time. The students can then elect to participate in supervised elective time (SET) activities. The curriculum for students in the three junior high schools is as follows:

7th Grade	8th Grade	9th Grade
English	English	English
Math	Math	Math
Science	Science	Science
Social Studies	Social Studies	Social Studies

7th Grade	8th Grade	9th Grade
Industrial Arts or Home Economics	Industrial Arts or Home Economics	Physical Education
Art	Art	Electives:
Physical Education	Physical Education	Band
Dev. Reading	Dev. Reading	Orchestra
Music	Speech	Choir
Decision Making (3 weeks)		Student Assistant
	Electives:	German
Electives:	Band	French
Band	Orchestra	Spanish
Orchestra	Choir	Family Life Ed.
Family Life Ed.	Family Life Ed.	Mini-courses during SET
Mini-courses during SET	Foreign Language	
	Mini-courses during SET	

Senior High Program

The two senior high schools have operated on modular-flexible scheduling since 1967-68. The school day is divided into 21 twenty-minutes mods. Class size, length of class period and number and spacing of classes vary according to the nature of the subject, type of instruction, level of student ability and interests of the students.

Fifteen senior high credits are required for graduation. They are as follows:

Grade 10	Grade 11	Grade 12
Required:	Required:	Required:
Language Arts	Language Arts	Language Arts
World Studies	American History	Senior Social Studies
Physical Education & Health	plus three additional one-credit courses	plus three additional one-credit courses
plus two additional one-credit courses		

The elective courses available and the grade levels at which they are offered are on the following page.

District A has a quota of juniors and seniors who may attend classes at the Area Vocational-Technical School. For these students,

Department/Course	Credit(s)	Grade(s)
Art		
Basic Art I, II	1	10,11,12
General Project Art I, II	1	11,12
Sculpture Crafts I, II	1	12
Two Dimensional I, II	1	12
Ceramics I, II	1	12
Humanities II	½	12
Business Education		
Typing I, II	1	10,11,12
Personal Typewriting	½	11,12
Marketing and Sales	½	11,12
Business Law	½	11,12
Data Processing	½	11,12
Accounting I, II, III	1½	11,12
Business Management I, II	1	12
Business Education Assistant	½	12
Office Procedures I, II	1	11,12
Shorthand I, II, III, IV	2	11,12
Notehand	½	11,12
Office Machines	½	11,12
Consumer Economics I, II	1	10,11,12
Foreign Language		
French I, II, III, IV	4	10,11,12
German I, II, III, IV	4	10,11,12
Spanish I, II, III, IV	4	10,11,12
German Potpourri A to Z		
Home Economics		
Indoor-Outdoor Sewing	½	10,11,12
Human Habitat	½	10,11,12
Creative Foods I, II	1	10,11,12
Sociology of the Family	1	12
Personal & Family Living	½	10,11
Home Econ. Student Assistants	½	11,12
Consumer Economics I, II	1	10,11,12
Industrial Arts		
Auto Mechanics I, II	2	11,12
Graphic Arts I, II, III	2	10,11,12
Electricity I, II, III, IV	3	10,11,12
Metals I, II	1	10,11,12
Machine I, II	1	11,12
Wood I, II, III, IV	3	10,11,12
Basic Mechanical Drawing I, II	1	10,11,12
Advanced Drafting	1	11,12
Language Arts		
English 10	1	10
English 11 Regular	1	11
English 11 Advanced	1	11
Fantasy	½	12
Mythology	½	12
Speech	½	12
Introduction to the Theatre	½	12
Grammar, Spelling & Expository Writing	½	12
Expository Writing I & II	½	12
Expository Writing II & Creative Writing	½	12
Short Stories, Novels & One-Act Plays	½	12
Psychological Fiction	½12	12
Literary Classics	½12	12
Tragedy-Comedy: Hero	½	12
Contemporary Literature	½	12
Film Study	½	12
Literature of the Supernatural	½	12
Efficient Reading	½	10,11,12
Reading Lab	½	10,11,12
Library/Resource Ctr. Assistant		10,11,12
Newspaper		10,11,12
Yearbook	½	10,11,12

Department/Course	Credit(s)	Grade(s)
Mathematics		
Algebra I-A, I-B	1	10
Geometry A, B	1	1
Algebra II-A, II-B	1	11,12
Advanced Algebra Topics	½	12
Trigonometry	½	12
Accelerated Math 10	1	10
Accelerated Math 11	1	11
Probability & Statistics	½	11,12
Introductory Calculus	½	12
Mathematics Assistant	1	11,12
Computer Programming	½	11,12
Math for the Consumer	½	11,12
Math for the Trades	½	11,12
Math for Business	½	11,12
Music		
Band	1	10,11,12
State or Lab	1	10,11,12
Choir	1	10,11,12
Girls' Glee Club	1	10,11,12
Girls' Octet		
Orchestra	1	10,11,12
Cafe Orchestra	1	10,11,12
Music Theory	1	10,11,12
Physical Education		
Sophomore Physical Education	1	10
Jr.-Sr. Physical Education	1	11,12
Science		
Astronomy I, II	1	10,11,12
Biology I, II	1	10,11,12
Physiology and Anatomy	1	11,12
Prep Chemistry	1	10,11,12
General Chemistry	1	10,11,12
Physics	1	11,12
Semester Physics	½	10,11,12
Science Assistant	1	11,12
Science Seminar	1	11,12
Social Studies		
World Studies	1	10
American History	1	11
American History - Advanced	1	11,12
Senior Social Studies	½	12
Sociology	½	12
Economics	½	12
Political Science	½	12
Religion in Human Culture	½	12
Psychology	½	12
World Affairs	½	12
Health	½	10
Driver Education		10,11,12
Cooperative Training		
Distributive Education		
Training Class	1	11,12
On the Job	1	12
Trade and Industry		
Training Class	1	12
On the Job	1	12
Office Education		
Training Class	1	12
On the Job	1	12

the high school program is kept as general as possible and they spend two hours per day in specialized instruction at the vocational school.

Co-Curricular Activities

The District's many elementary level co-curricular activities vary among the elementary schools. Co-curricular programs include: girls' athletics, boys' athletics, recreation programs, special music groups, stage band, music programs, chamber choir, jazz labs, enrichment rooms, tutoring, cross-age tutoring, reading room, Book Buzz, Vietnamese tutoring, outdoor education, conservation camp, field trips, camping, cultural arts, student council and safety patrol.

Over half of the junior high co-curricular activities are athletics. Non-athletic activities include debate, dramatics, school newspaper, school yearbook, radio club, ecology club, cheerleaders and small music groups. Intra-mural sports are provided for the students. Boys' athletics include football, basketball, wrestling, track, baseball and cross country. Volleyball, basketball, tennis, track, softball and cross country athletic opportunities are provided for girls. Girls' also participate in synchronized and competitive swimming.

Senior high co-curricular activities are also dominated by athletics. Boys may participate in football, cross country, soccer, basketball, hockey, wrestling, swimming, skiing, track, tennis, baseball, golf and gymnastics. Athletics for girls include volleyball, basketball, competitive swimming, tennis, skiing, gymnastics, track and cross country. Non-athletic activities are debate, dramatics, school newspaper, school yearbook, pom-pom girls, dance line, cheerleaders, Girls' Recreational Association (GRA), pep club, American Foreign

Students (AFS), art club and small music groups. Students also participate in intramural sports.

Band, choir and orchestra are a part of the curriculum. These activity groups are also involved in many events outside the school day.

Supporting Services

Bus transportation is provided for 86 percent of the students by 50 contracted buses. There are 368 bus routes with each bus averaging 7.5 trips a day. An interesting note is that the buses annually cover nearly 890,000 miles within the District of 27 square miles. The District also provides special transportation for kindergarten, physically handicapped, EMR, TMR and mentally handicapped students. Handicapped students who attend schools in other districts receive District A transportation.

District A has a comprehensive evaluation program. The evaluation program is primarily used in relation to student needs and the instructional program. Standardized achievement tests are given in grades 4 through 12.

Pupil personnel services are provided by a wide variety of staff specialists. Counselors, social workers, psychologists, speech clinicians, nurses, health aides, psychiatrists and teachers for special education programs provide a variety of services to the school community. The department coordinates a homebound teaching program, facilitates the placement of handicapped students who require schooling outside the District and coordinates Title I activities.

Food services are provided by the School District to 79 percent

of the elementary students and 55 percent of the secondary students. Type A lunches are prepared in each school building with the District doing central purchasing. With federal and state lunch aids and government commodities, the food service operation is self supporting.

Enrollment Trends

Beginning-of-year enrollments in District A for the school years 1965-66 through 1975-76 are reported in Table 1. Examination of the table will show that total District enrollment was growing through 1969-70, but has been steadily falling since that year.

Generally, a decline in the enrollment in the elementary grades since 1969-70 and in the junior high grades since 1972-73 was responsible for the overall decline while senior high enrollment remained quite stable.

In kindergarten, the pattern over the period was somewhat erratic but generally downward from a high of 948 students in 1965-66 to a low of 565 students in the most recent year, 1975-76. In only three of the years was there an increase in enrollment over the previous year.

Enrollments in grades 1-6 increased annually during the first years of the period with a high of 4,753 students being reached in 1969-70. Each year since then the 1-6 total has fallen, to a low of 3,594 students in 1975-76.

The decline started later in the junior high school grades. Growth was registered throughout the period from 1965-66 through 1972-73 with the exception of 1970-71. After a high of 2,580 students in 1972-73, however, the 7-9 grade total dropped each year to 2,333 students

Table 1

BEGINNING-OF-YEAR ENROLLMENT HISTORY FOR DISTRICT A, 1965-66 THROUGH 1975-76

Year	K	1	2	3	4	5	6	Total 1-6	7	8	9	Total 7-9	10	11	12	Total 10-12	Total 1-12	Total K-12	Change
1965-66	948	770	724	671	670	742	699	4,176	741	691	746	2,178	723	666	633	2,072	8,476	9,424	--
1966-67	867	794	769	729	709	691	755	4,447	748	664	801	2,210	729	715	661	2,105	8,762	9,629	+ 20
1967-68	889	769	809	778	760	722	709	4,547	823	782	814	2,382	863	744	693	2,300	9,329	10,118	+ 48
1968-69	800	772	769	823	811	782	740	4,697	774	846	809	2,429	823	822	714	2,359	9,485	10,285	+ 16
1969-70	829	721	756	803	831	860	782	4,753	804	828	835	2,467	813	824	794	2,431	9,651	10,480	+ 19
1970-71	668	756	705	749	790	835	862	4,697	816	802	823	2,441	910	811	819	2,540	9,678	10,346	- 13
1971-72	641	596	723	716	733	798	817	4,383	881	813	811	2,505	856	910	806	2,572	9,460	10,101	- 24
1972-73	627	593	576	699	732	735	792	4,127	862	856	862	2,580	829	856	877	2,562	9,269	9,896	- 20
1973-74	578	578	607	581	718	710	736	3,930	807	877	880	2,564	868	826	829	2,523	9,017	9,595	- 30
1974-75	593	567	584	594	589	721	712	3,767	780	806	900	2,486	887	859	782	2,528	8,781	9,374	- 22
1975-76	565	552	547	578	590	589	738	3,594	729	774	830	2,333	901	881	845	2,627	8,554	9,119	- 25

in 1975-76. This was the lowest junior high total since 1966-67.

The declining trend has not yet been felt in the senior high grades. In fact, the 1975-76 enrollment in grades 10-12 of 2,627 students is the highest in the 11 year historical data period. From a low of 2,072 students in 1965-66, the senior high enrollment grew annually through 1971-72. In succeeding years, it declined for two years then in two steps rose to the 1975-76 high.

K-12 total enrollments over the period grew annually by between 167 and 485 students from 1965-66 through 1969-70 to a high in that year of 10,480. From 1970-71 through 1975-76, the K-12 enrollment fell annually by between 134 and 301 students to a 1975-76 low of 9,119 students. This number represents a drop of 1,361 students or 13 percent in six years.

Census counts of all children 0-17 years of age are required annually fo all school districts. The numbers of children in the pre-school age bracket counted in this annual census is useful to the school district in projecting the numbers of students to be served in future years.

School District A has developed a system of census taking quite different from the traditional method of door-to-door interviewing of district residents. An initial file was developed using the traditional method. It is continuously updated using monthly reports of move-ins and move-outs from the electric utility company. Families that have moved out of the District are removed from the census file; those that have moved in are contracted by telephone, and a family census file is developed for them. This allows the District to be continuously aware of in- and out-migration.

Table 2 presents the annual census data from District A for the

Table 2

SCHOOL CENSUS HISTORY IN DISTRICT A, 1965 THROUGH 1975

School Census Year	0	1	2	3	4	5	Total 0-5	6	7	8	9	10	11	Total 6-11	12	13	14	15	(Not Att) 16	(Att) 16	17	Total 12-17	Grand Total
1965-66	391	554	674	727	830	1,006	4,182	953	936	905	936	947	980	5,652	947	934	862	794	4	733	710	4,985	14,819
1966-67	414	545	659	735	795	952	4,100	1,022	957	948	947	956	936	5,766	947	939	934	859	10	791	733	5,210	15,076
1967-68	521	628	666	797	821	887	4,320	917	995	938	934	936	946	5,666	939	931	974	979	0	875	817	5,515	15,501
1968-69	579	643	661	709	828	816	4,236	906	897	995	934	914	936	5,582	931	934	928	950	0	959	854	5,556	15,374
1969-70	534	603	642	679	688	903	4,049	835	891	918	977	975	930	5,526	958	970	941	938	77	946	964	5,794	15,369
1970-71	500	624	632	649	686	817	3,908	864	837	937	940	1,026	[illegible]	5,605	937	953	985	963	79	871	961	5,749	15,262
1971-72	656	864	622	657	656	776	4,231	877	822	958	958	[illegible]	977	5,608	938	977	957	943	70	829	925	5,639	15,478
1972-78	434	587	615	602	562	676	3,476	684	689	833	816	881	913	4,816	973	960	914	956	76	867	922	5,668	13,960
1973-74	367	479	585	637	599	632	3,299	706	688	700	836	796	881	4,607	908	980	[illegible]	912	78	877	935	5,650	13,556
1974-75	328	382	456	559	636	662	3,023	634	665	665	698	807	797	4,266	888	904	970	966	79	835	921	5,563	12,852
1975-78	369	389	390	439	551	660	2,798	633	615	658	684	698	823	4,111	791	882	898	975	75	870	896	5,387	12,296

period 1965 through 1975. In the most significant section for projection purposes, the 0-5-year-old bracket, the picture is one of continual decline in the 1972 through 1975 period, after a period of relative stability from 1965 through 1971. The highest number of 0-5 year olds was 4,320 children reported in 1967; the lowest number, 2,798 children, was reported in 1975.

School District A utilizes several management support services of a regional educational computer facility. One of these services is the projection of enrollments using a cohort survival ratio model. Using the data on pre-school census and K-12 enrollment history, enrollment projections are made for the District annually.

Table 3 presents the enrollment forecast generated for the years 1976-77 through 1980-81. Declining enrollments throughout the five year period are forecast at virtually every grade level, with an occasional one-year interruption in the pattern.

In kindergarten, the number of students is expected to decline by 9 to 112 students during the first four years of the projection to a low of 345 students and then increase by 15 in 1980-81 to 360 students.

The annual decline in the total enrollment for grades 1-6 during the forecast period will be from 111 to 254 students. The 1980-81 total is forecast to be 2,579, 1,015 students fewer than in 1975-76, the last year actual enrollment was counted.

Annual decline throughout the forecast period is also projected for the junior high grade totals, with the amount of decrease ranging from 44 to 164 students. The 1980-81 7-9 grade total is expected to be 1,802 students, 531 fewer than in 1975-76.

The enrollment history showed a rather stable enrollment at the senior high level. During the forecast period, however, the decline in

Table 3

PROJECTED ENROLLMENTS FOR DISTRICT A FOR THE PERIOD 1976-77 THROUGH 1980-81

Year	K	1	2	3	4	5	6	Total 1-6	7	8	9	Total 7-9	10	11	12	Total 10-12	Total 1-12	Total K-12	Change K-12
1975-76	565	552	547	578	590	589	738	3,594	729	774	830	2,333	901	881	845	2,627	8,554	9,119	--
1976-77	519	533	546	540	582	588	594	3,383	765	726	798	2,289	835	894	853	2,582	8,254	8,773	- 346
1977-78	407	489	527	539	544	580	593	3,272	615	762	748	2,125	803	828	865	2,496	7,893	8,300	- 473
1978-79	354	384	484	520	543	542	585	3,058	614	613	785	2,012	792	797	801	2,350	7,420	7,774	- 526
1979-80	345	334	380	478	524	541	547	2,804	606	612	632	1,850	790	746	771	2,307	6,961	7,306	- 468
1980-81	360	325	330	375	481	522	546	2,579	567	604	631	1,802	636	784	722	2,142	6,523	6,883	- 423

elementary and junior high grades of the early 70's begins to be felt at the senior high level. The grades 10-12 enrollments is projected to decrease from 43 to 165 students annually throughout the period. The total drop is forecast to be 482 students in the 1975-76 through 1980-81 period.

K-12 enrollment will decrease annually from 346 to 473 students throughout the forecast period. This will result in an overall decrease of 2,236 students between 1975-76 and 1980-81 or a drop of 25 percent.

Approximately 500 residents of District A attend the three parochial schools located within the District. Another approximately 250 residents attend parochial or private schools outside the District. The proportion of residents attending non-public schools has remained stable as the decline has occurred in the public schools of the District. Therefore, no adjustments need be made in the data used for the forecast if the assumption is understood that non-public school enrollments will remain in the same ratio to public school enrollments throughout the forecast period.

School officials reported that they are optimistic that the decline in enrollment will be arrested, perhaps even before the end of the five

year forecast period. Some reasons are as follows:

1. The monthly reports from the electric power utility company on move-ins and move-outs tend to show that houses vacated are quickly reoccupied. Furthermore, new housing is continually being constructed, and is generally sold and occupied quickly upon completion.
2. The District is located within a large metropolitan area offering a great variety of vocations. This will continue to attract young families from rural areas and will keep local young people close to home as they begin raising their families.
3. Housing currently occupied by older families whose children are out of school will soon be inhabited by families in their child-bearing years. While many of these homes may be quite expensive for newly formed families, a sizeable percentage would be suitable for them.

Currently, 7,978 dwellings in the District are occupied by families without children, 7,756 are occupied by families with children.

Plant Facilities

School District A currently houses its program in 12 school buidings: two senior high schools, three junior high schools and seven elementary schools. Table 4 summarizes the facilities currently in use and provides a comparison of present building enrollment with estimated capacity. Table 5 presents the interaction between building capacity and forecast enrollments for the 1976-77 through 1980-81 school years. The data in Table 4 indicate that elementary facilities II, V and VII were built in the 1920's, have had later additions and have been kept in good repair.

Table 4

SUMMARY OF SCHOOL PLANT FACILITIES IN SCHOOL DISTRICT A

School	Grades	Site Size (Acres)	Date of Construction	Dates of Additions	Current Enrollment (10/1/75)	Estimated[a] Program Capacity	1975-76 Unused Program Capacity
Elementary I	K-6	10	1952	1961	609	650	41
Elementary II	K-6	5	1921	1947, 1952 1958	529	550	21
Elementary III	K-6	15.2	1969	--	737	675	(62)[b]
Elementary IV	K-6	14.9	1956	1961	670	650	(20)[b]
Elementary V	K-6	5	1926	1942, 1948 1953	537	550	13
Elementary VI	K-6	90[c]	1967	--	618	675	57
Elementary VII	K-6	10	1927	1952, 1954 1953	499	500	1
Junior High I	7-9	3.5	1924	1935	625	800	175
Junior High II	7-9	90[c]	1959	--	824	1,000	176
Junior High III	7-9	38	1967	--	884	1,100	216
Senior High I	10-12	24	1955	1962	1,357	1,900	543
Senior High II	10-12	90[c]	1970	--	1,270	1,500	230

[a] Determined by District A administrators on basis of current instructional program design.
[b] Current enrollment exceeds estimated capacity.
[c] Same site.

These same three buildings are located on the three smallest sites in the District. These three also have the smallest estimated program capacities. Junior High I was built in 1924 with an addition in 1935. In addition to being older than the other two buildings, it is located on the smallest site and has the smallest estimated program capacity. While the original portion of Senior High I is 15 years older than Senior High II, both buildings are in excellent condition and have proven to be flexible enough to accommodate needed program change. Site size has proven adequate at both buildings for needed outdoor physical education facilities. The estimated program capacities of all buildings were prepared by District A administrators based on current program needs. The total unused capacity at each senior high, junior high and elementary school is presented in the last column. In Elementary Buildings III and IV actual enrollment is shown to exceed the estimated program capacity. All other buildings in the District are not fully utilized.

Table 5 summarizes the present and predicted unused capacity at senior high, junior high and elementary levels. The unused capacity was determined by adding the unused capacity of all buildings within the level and subtracting actual or projected enrollment from it. Using this procedure, it was determined that in 1975-76 there is program capacity in the buildings for 773 more high school students, 567 additional junior high students and 51 additional elementary students. The total unused program capacity in District A buildings would accommodate 1,391 additional students. The interaction of forecast enrollments with estimated program capacity in Table 5 indicates progressively greater amounts of unused building capacity throughout the forecast period 1976-77 through 1980-81.

Table 5

INTERACTION OF PLANT FACILITY CAPACITY AND ACTUAL AND FORECAST ENROLLMENT IN DISTRICT A, 1976-77 THROUGH 1980-81[a]

Facilities	Capacity	1976-77 Forecast Enroll.	1976-77 Unused Cap.[b]	1977-78 Forecast Enroll.	1977-78 Unused Cap.[b]	1978-79 Forecast Enroll.	1978-79 Unused Cap.[b]	1979-80 Forecast Enroll.	1979-80 Unused Cap.[b]	1980-81 Forecast Enroll.	1980-81 Unused Cap.[b]
Elementary (K-6)	4,250	3,902	348	3,679	571	3,413	838	3,149	1,101	2,939	1,311
Junior High	2,900	2,289	611	2,125	775	2,012	888	1,850	1,050	1,802	1,098
Senior High	3,400	2,582	818	2,496	904	2,350	1,050	2,307	1,093	2,242	1,258
TOTAL	10,550	8,773	1,777	8,300	2,250	7,774	2,776	7,306	3,244	6,883	3,667

[a]For 1975-76, see Table 4.
[b]Total capacity minus enrollment.

Staffing

District A has a reputation for having an excellent staff. Salaries paid to the teachers are at the top in the state and in the 99th percentile nationally.

Four types of information about District A's staff were collected; 1) size of the certificated staff, 2) distribution of staff on the salary schedule, 3) implications of staffing for student teacher ratios, and 4) size of non-certificated staff.

The size of the certificated staff is indicated in the following list:

Position/Classification	Number (FTE)
Superintendent	1.0
Central Office Administrators	6.0
Principals/Assistant Principals	18.0
Administrative Intern	1.0
Social Workers	2.2
Speech Therapists	4.0
Elementary	
Kindergarten	10.3
Grade Level Teachers	133.5
Music Teachers	7.0
Physical Education Teachers	7.0
Reading Teachers	7.0
SLBP Teachers	7.0

Position/Classification	Number (FTE)
Special Education Teachers	7.0
Librarians	7.0
Counselors	7.0
Title I Teachers	3.7
Psychologists	2.0
Speech Therapists	3.5
Secondary	
Teachers	248.2
Counselors	13.4
Audio-Visual	4.0
Department Chairpersons	2.4
Juvenile Liaison	2.0
Special Education	7.3
Athletic Directors	1.4
Speech Therapy	.5
TOTAL	508.4

The approximate distribution of the teaching staff on the salary schedule is presented in Table 6. Table 6 presents the 1974-75 staff placed on the 1975-76 salary schedule by step by lane. While the data do not reconcile with current staff counts, the distribution of staff by experience and training presents a valid picture. About 30 percent of the staff are on the maximum step of the salary schedule and 39 percent of all staff have a Master's degree or more. The fact that many of District A's teachers are not at the top of the schedule means that the District can expect increased staff maturity with direct implications for program costs. The staff is also likely to increase training levels causing increased salary costs.

One way to examine the relationship of staff to students is in terms of student to teacher ratio. The student to classroom teachers' ratios for School District A as reported to a regional educational cooperative including the following:

Level	Ratio
Kindergarten	26.6:1
Grades 1-6	27.0:1
Secondary 7-9	19.3:1
Secondary 10-12	21.3:1

Table 6

SALARIES AND NUMBERS OF CERTIFICATED STAFF BY EXPERIENCE AND LEVELS OF TRAINING IN SCHOOL DISTRICT A, 1975-76[a]

Step	Level of Training and Number of Staff by Cell																								TOTAL STAFF
	B.A.	No. of Staff	B.A. +15	No. of Staff	B.A. +30	No. of Staff	B.A. +45	No. of Staff	B.A. +60	No. of Staff	M.A.	No. of Staff	M.A. +15	No. of Staff	M.A. +30	No. of Staff	M.A. +45	No. of Staff	M.A. +60	No. of Staff	Spec.	No. of Staff	Doc.	No. of Staff	
1	$ 8,985		$ 9,045		$ 9,300		$ 9,570		$ 9,710		$ 9,710		$10,230		$10,555		$10,880		$11,180		$11,415		$11,705		
2	9,285	15	9,610	1	9,915		10,230		10,500		10,500	1	11,020		11,345		11,675		11,995		12,230		12,545		17
3	9,585	15	10,175	4	10,530		10,890		11,290	3	11,290		11,810		12,135		12,470		12,810		13,045		13,385		22
4	9,885	13	10,740	9	11,135	3	11,555		12,070		12,070	5	12,590		12,925		13,260	1	13,625		13,965		14,230		31
5	10,400	5	11,295	15	11,720	7	12,190	1	12,825	3	12,825	1	13,350		13,695		14,035	1	14,405		14,655		15,050		33
6	10,890	5	11,860	13	12,325	9	12,850	6	13,615	2	13,615	1	14,130		14,485		14,835		15,220		15,485		15,890		36
7	11,395	5	12,440	10	12,930	11	13,520	5	14,405	1	14,405	6	14,920	4	15,275	2	15,625		16,025		16,300		16,725		44
8	11,890	2	13,005	7	13,545	18	14,180	3	15,190	6	15,190	3	15,705	2	16,065	1	16,430	2	16,845		17,125		17,575		44
9	12,380	2	13,580	6	14,150	8	14,835	8	15,970	2	15,970	3	16,495	6	16,855	1	17,225		17,655		17,945		18,405	1	39
10	12,890	3	14,150	2	14,750	4	15,495	4	16,760	4	16,760	7	17,275	3	17,645	1	18,015		18,460		18,760	1	19,250		29
11	13,415		14,725	1	15,365	7	16,155	3	17,550	5	17,550	7	18,055	6	18,435	3	18,815	2	19,275	2	19,580		20,085		36
12	13,945		15,290	2	15,970	4	16,815		18,330	3	18,330	4	18,835	2	19,225	2	19,615	3	20,080		20,395		20,935		
13	14,465		15,860	3	16,585	4	17,485		19,115	5	19,115	2	19,630	6	20,015	2	20,405		20,900		21,225	1	21,775		23
14	14,825	1	16,100	7	16,975	11	17,920	12	19,635	20	19,635	15	20,235	34	20,620	12	21,040	22	21,540	25	21,870		22,445	2	161
TOTALS		66		82		86		42		51		58		63		24		31		27		2		3	535

[a]Table prepared by placing 1974-75 staff on recently negotiated 1975-76 schedule; therefore, it does not reconcile with 1975-76 staff count.

The numbers of non-certificated staff are distributed as follows:

Classification	Number
Administration	6.0
Custodial Services	69.0
Food Services	65.0
Secretarial-Clerical	64.0
Teacher Aides	19.6
TOTAL	233.6

Revenues and Expenditures

The data in Table 7 present selected General Fund revenue receipts by level of source for 1970-71 through 1974-75. The variations from year to year require explanation beyond the scope of these case study materials. With the exception of 1973-74, the total General Fund revenue has remained about constant. Caution must be used in interpreting year to year variations because of the cash accounting system which generated the data.

Table 7

GENERAL FUND REVENUE RECEIPTS IN SCHOOL DISTRICT A BY SOURCE LEVEL, 1970-71 THROUGH 1974-75

	Year				
Level/Source	1970-71	1971-72	1972-73	1973-74	1974-75
Local[a]	$6,954,818	$8,497,609	$6,505,053	$5,160,104	$7,279,555
County	17,218	7,458	19,375	31,307	26,035
State	5,082,079	3,721,695	5,753,046	5,462,500	5,456,366
Federal	364,509	290,315	328,155	127,708	81,105
TOTAL	$12,418,624	$12,517,077	$12,604,629	$10,961,619	$12,843,061

[a]Amounts do not include sales of materials and abatement.
Source: Annual Reports, State Department of Education.

The data in Table 8 indicate expenditures from the General Fund by function from the years 1970-71 through 1974-75. These figures tend to increase gradually from $11,920,000 in 1970-71 to $13,489,000 in 1974-75.

Table 8

GENERAL FUND EXPENDITURES BY FUNCTION BY YEAR FOR SCHOOL DISTRICT A, 1970-71 THROUGH 1974-75

Function	Year 1970-71	1971-72	1972-73	1973-74	1974-75
Administration (100)	$ 291,628	$ 297,763	$ 319,827	$ 302,288	$ 335,54
Instruction (200)	8,937,727	9,303,294	9,435,868	9,501,962	9,990,70
Attend. & Health (300-400)	90,745	92,011	87,087	101,225	115,15
Transportation[a] (500)	514,799	531,861	542,388	548,528	566,70
Operation of Plant (600)	1,200,177	1,333,685	1,309,845	1,350,977	1,498,97
Maintenance of Plant (700)	380,696	369,165	324,834	276,954	246,28
Fixed Charges (800)	505,061	667,596	734,118	830,553	735,74
TOTAL	$11,920,833	$12,595,375	$12,753,967	$12,912,487	$13,489,10

[a]Separate fund starting 1973.

Source: Annual Reports, State Department of Education.

Had substantial budget cuts not been made, the expenditures would have increased at a much more rapid rate.

Table 9 presents pupil units and selected unit costs for District A. The adjusted maintenance cost per pupil unit in average daily membership did not take a substantial increase until 1974-75 when it rose from $1,031 to an estimated $1,178.

Responses to Enrollment Decline

Declining enrollment is only one variable affecting the retrenchment decisions made in Districts A between 1971-72 and 1974-75. Other variables included expenditure limitations and increasing unit costs stemming from multiple causes. These variables interact and it is not possible to completely partial out the effects of declining enrollment.

Table 9

PUPIL UNITS AND UNIT COSTS IN ADJUSTED MAINTENANCE EXPENDITURES IN AVERAGE DAILY MEMBERSHIP FOR SCHOOL DISTRICT A, 1970-71 THROUGH 1974-75

Selected Data S (ADM)	Year 1970-71[a]	1971-72	1972-73	1973-74	1974-75[b]
Resident Pupil Units	12,098	11,848	11,679	11,371	11,121
State Median	NA	938	953	948	NA
Adj. Maint. Cost PPU[c]	$1,012	$1,000	$1,027	$1,031	$1,178
State Median	$ 636	$ 681	$ 722	$ 780	NA
Foundation Aid PPU	$ 207	$ 217	$ 348	$ 360	$ 350
State Median	NA	$ 346	$ 468	$ 506	NA
Bonded Debt PPU	$1,378	$1,277	$1,212	$1,161	$1,102
State Median	$ 710	$ 693	$ 701	$ 713	NA

[a]All 1970-71 reported in ADA and adjusted to ADM with exception that Bonded Debt PPU and its median are ADA.

[b]1974-75 data are preliminary data as of January 16, 1976.

[c]Adjusted maintenance cost excludes expenditures for veterans' training, community services and receipts from sale of lunches, materials, student activities and refunds as specified by the State Department of Education for a particular year.

Source: Selected Data Reports, State Department of Education.

In 1970-71, District A recognized that its future enrollments could decline. The passage of the Omnibus Tax Law of 1971 which intended to limit expenditures by high-spending districts was of greater concern from a management point of view.

In 1971-72, declining enrollment was recognized as a trend and retrenchment was begun. The retrenchment was a response to both expenditure limitations and declining enrollment. Dealing with the immediate problems was difficult and the prospects for the near future were grim.

By the end of 1972-73, District A closed its first elementary school due to declining enrollments. It was an old, four-room structure that represented a very small portion of the District's elementary plant facility. Information meetings were held and the decision to close the school was accepted as sound management practice. The closed elementary building was first leased and later sold to a private school. In addition to closing the elementary building, there was staff reduction handled through attrition and reassignment. Budget reductions amounted to little more than "chipping away at programs."

In 1973-74 the full impact of the 1971 legislation was being felt in the District as well as the effects of declining enrollment. The District A administrative staff was engaged in a major planning effort to deal with the combined effects of expenditure limitation and enrollment decline. With much attention to detail, the District prepared five-year forecasts of revenue and expenditures based on carefully stated assumptions. The results of these detailed efforts are summarized in Table 10. The data in Table 10 pointed toward an erosion of the General Fund balance and toward large operating deficits. Clearly, there would have to be budgetary reductions. The data presented in Table 10 led to further extensive planning activities which involved an advisory committee on which citizens, teachers and administrators were represented. One of the products generated by extensive data-based planning activities was the information summarized in Table 11. These data indicated the possible staffing implications of dealing with the fiscal deficits forecast in Table 10. District A attempted to separate the effects of enrollment decline and expenditure reduction. The data in Table 11 reflected drastic future actions and understandably they were clearly

Table 10

ESTIMATED GENERAL FUND RECEIPTS AND DISBURSEMENTS
IN DISTRICT A, 1974-75 THROUGH 1978-79

October Tax Levy	Budget Year	Receipts	Disbursements	Deficit	Year-End Balance
	1973-74				$ 797,687
1973	1974-75	$13,069,748	$13,578,636	$(508,888)	288,799
1974	1975-76	13,383,577	14,390,323	(1,006,746)	(717,947)
1975	1976-77	13,772,013	15,115,860	(1,343,847)	(1,343,847)
1976	1977-78	14,070,000	15,445,256	(1,375,256)	(1,375,256)
1977	1978-79	14,188,419	15,392,859	(1,204,440)	(1,204,440)
		$68,483,757	$73,922,934	$(5,439,177)	

labeled "Tentative." Actions were taken to reduce staff by 31.8 full-time equivalents (FTE); 14 elementary and 17.8 secondary staff for the next year, 1974-75.

The 1974-75 school year also presented difficult and complex management problems. The District still faced a severe fiscal crsis. One alternative made possible by the 1971 school aid legislation was the passage of an excess levy referendum. To be certain that all avenues had been tried, an increased levy referendum was presented to the voters in September, 1974. The levy was defeated almost four to one. Later on in the year, actions were taken to reduce staff by 45 FTE positions for the following year.

At the end of the 1974-75 school year, a second, larger elementary building was closed. Since the selection of which building should be closed was not as clear-cut as it had been in the case of the first

Table 11

DISTRICT A PROJECTED BUDGET/STAFFING REDUCTIONS

	1975-76	1976-77	1977-78	1978-79	Total
Enrollment Related:					
1. Total Budget Reduction	$1,035,996	$1,396,623	$1,792,866	$2,080,830	$6,684,575
2. Reduction due to enrollment decline	$ 263,809	$ 362,117	$ 638,650	$ 848,230	$2,122,786
3. Percent to be taken in salary cost reduction.*	80%	80%	80%	80%	
4. Total Salary Reduction	$ 211,047	$ 289,693	$ 510,920	$ 678,568	$1,690,228
5. Average Salary Unit	$ 13,000	$ 13,500	$ 14,000	$ 14,500	
6. Total Staff Unit Reduction Related to Enrollment Decline	16.23	21.45	36.49	46.79	120.96
Due to Program Reduction:					
1. Program Reductions	$ 772,187	$1,034,506	$1,154,216	$1,232,720	$4,286,547
2. Percent to be taken in salary cost reduction*	80%	85%	90%	95%	
3. Total Salary Cost Reduction	$ 617,750	$ 879,330	$1,038,794	$1,171,084	$3,706,938
4. Total Staff Unit Reduction Related to Program Reduction	47.51	65.13	74.19	80.76	267.59
5. Elementary Staff Reduction	19	26	30	31	106
6. Secondary Staff Reduction	24	34	39	41	138
a. Junior High	(11)	(16)	(17)	(18)	(62)
b. Senior High	(13)	(18)	(22)	(23)	(76)
7. District-wide Cuts	5	5	5	8	23

*The percentage given indicates an estimated percent of the reduction which will be staff related.

elementary school to be closed, a good deal of data collection and systematic analysis was undertaken. To accomplish this, a Committee for Development of Weighted School Closing Criteria, comprised of School District personnel and citizens, was established to recommend criteria to the Board of Education. The system of weighted criteria they established was as follows:

A. Student, Staff and Community Factors

	Weight
Displacement of Students	10
Educational Program	7
Anticipated Attendance Area Growth	7
Community Use and Support of School	6
Staff Displacement and Disruption	5
School/Neighborhood Geographic Relationship	5
Proximity to Secondary Schools	5
Historical Value of Location	1

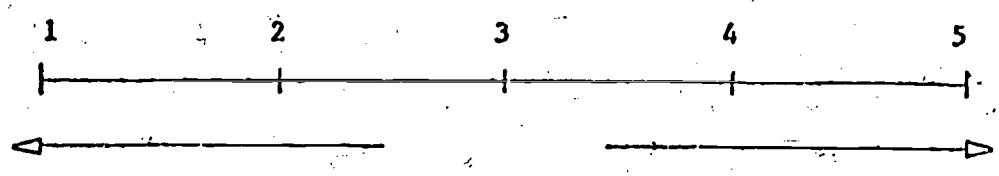
B. Physical Facilities Factors

Special Supportive Facilities	9
Classroom Facilities	7
Life Safety of Building	7
Site Size and Condition	7
Building Capacity	6
Building Condition	6
Adaptability to Remodeling and Expansion	6
School Site Location	4

C. Financial Factors

Maintenance Cost/Square Foot	6
Operation Cost/Square Foot	4
Transportation Cost/Pupil	4
Fixed Costs/Pupil	3
Mothballing Costs	3
Alternate Use as District Facility	3

To identify the particular building to be closed, the committee suggests that a five point rating scale be used in applying each of the weighted criteria to each of the eight existing elementary school buildings. Application of the rating scale is diagrammed below:



Multiplying the criteria weight times the assigned rating will yield products which, when summed, will indicate that the school to be closed is the school with the least sum.

Further Definition

A. Student, Staff and Community

1. Displacement of Students - the number of students displaced by building closing, the "ripple effect," perimeter versus centralized building closing.

2. Educational Program - the existing educational program is to be evaluated through a conference between the administrators applying the criteria with each building principal and representative staff.

3. Anticipated Attendance Area Growth - the potential growth in numbers of students in a particular area as judged by the amount of undeveloped land, current zoning, area's current and future types of housing, population characteristics, remaining schools' ability to accommodate growth or continued decline.

4. Community Use and Support of School - the amount of use of the school facility by the community, demonstrated parent interest and involvement in school activities, community efforts in school projects, PTO/PTA involvement, etc.

5. Staff Displacement and Disruption - the number of relocations and amount of disruption of staff in closed building, the stability and longevity of building faculty.

6. School/Neighborhood Geographic Relationship - the physical make-up of the attendance area, accommodation of "natural" neighborhoods, neighborhood school concept, the school tradition and school "family" feeling, consideration of eventual closing of another elementary building.

7. Proximity to Secondary Schools - closeness to secondary schools for sharing of facilities, secondary students assisting at elementary level.

8. Historical Value of Location - the school's proximity to or location in historical setting, access to historical sites.

B. Physical Facilities Factors

1. Special Supportive Facilities - the number, size and adequacy of special facilities such as physical education stations, music and reading rooms, resource centers, teacher work rooms, lunchroom facilities, etc. Also, carpenter shop, storage space and other special non-instruction related facilities.

2. Classroom Facilities - features of classrooms such as size, heating, lighting, appearance, arrangement, "comfort," etc.

3. Life Safety of Building - fire safety, conformance to present and future code regulations (electrical, fire, ventilation and handicapped), type of construction, single versus multiple story building, etc.

4. Site Size and Condition - the size of school site, maintenance needed on site (lawns, sidewalks, parking lot, playground facilities, etc.)

5. Building Capacity - consideration of building capacities as related to projected short-term and long-term enrollment projections and enrollment/capacity analyses.

6. Building Condition - the age and future useful life, planned building improvements, short-range and long-range maintenance requirements.

7. Adaptability to Remodeling and Expansion - the ease with which a building can be remodeled or expanded to accommodate changing educational program requirements.

8. School Site Location - access to school, location relative to highways, bridges, creeks, residential versus non-residential setting.

C. Financial Factors

1. Maintenance Cost/Square Foot - custodial/maintenance salaries, maintenance supplies, snow and refuse removal, security, maintenance equipment.

2. Operation Cost/Square Foot - electricity, gas, water/sewer and telephone.

3. Transportation Cost/Pupil - the total cost of transportation per elementary student assuming each of the different schools were to be closed.

4. Fixed Costs/Pupil - the fixed instructional salaries other than classroom teachers on a per pupil basis by building.

5. "Mothballing" Costs - the costs of mothballing a building (utilities to be maintained, site maintenance, boarding windows, security, etc.)

6. Alternate Use as District Facility - the use of closed building as district warehouse, office area, portions of building used (physical education stations, resource centers, etc.) while classrooms closed, etc.

The Board of Education approved the system. The data were collected, criteria applied, and the following composite weighted scores for each building were presented to the Board of Education in January, 1975 with a recommendation that Elementary School VIII be closed:

School	Score
Elementary School I	423
Elementary School II	295
Elementary School III	407
Elementary School IV	362
Elementary School V	323
Elementary School VI	423
Elementary School VII	367
Elementary School VIII	287

The school with the lowest composite score, Elementary School VIII, was closed.

In 1975-76 District A reexaminated its planning procedures. Many of the assumptions made in 1973-74 did not hold up. Increases in the foundation aid formula, special education aids, and further relief under the "grandfather' clause of the Omnibus Tax Law eased the fiscal crisis even though it did not solve the problem. The five-year planning horizon no longer seemed practical and meticulous attention to detail in forecasting revenue and expenditures did not produce results which justified the efforts. Anticipated revenues and expenditures are now based on projected enrollments converted to pupil units and multiplied by current unit cost with percentage adjustments. District A now looks ahead two years for budget planning purposes. A summary of projected receipts and expenditures for the next two years is presented in Table 12. While format of Table 12 is simple, a great deal of backup material was accumulated for its preparation.

The planning and decision making for 1976-77 is not complete. An estimated 19.5 FTE positions have yet to be cut. A decision on when to

Table 12

SUMMARY REPORT OF THREE YEAR FINANCIAL PROJECTIONS
FOR DISTRICT A , 1975-76 THROUGH 1977-78

Item	Current 1975-76	Projection 1976-77	Projection 1977-78
Enrollment	9,119	8,773	8,300
Pupil Units	10,925	10,566	10,049
% of Decrease	N/A	- 3.29%	- 4.90%
Beginning Fund Balance			
June 30, 1975	$ 353,870		
1976		$ 178,235	
1977			$ 195,235
Budget:			
Receipts	13,730,210	14,326,000	14,440,000
Per Pupil Unit	1,257	1,356	1,437
% of Increase	N/A	7.88%	6.00%
Disbursements and Transfers	(13,905,845)	(14,309,000)	(14,410,000)
Per Pupil Unit	1,273	1,354	1,444
% of Increase	N/A	6.36%	6.65%
Year-End Fund Balance	$ 178,235	$ 195,235	$ 225,235

Assumptions

Enrollment and Pupil Units
Based on actual 1975-76
Enrollment projected to 1977-78

Receipts
1975-76 current budget, state aid @ $900 per pupil unit.
1976-77 projections include state aid @ $960 per pupil unit (+6.67%).
1977-78 projections include state aid @ $1,015 per pupil unit (+5.73%).

Disbursements
1975-76 includes budget and additional items approved as of 12/4/75.
1977-78 based on 1975-76 pupil unit disbursement cost increased 7%.
1978-79 based on 1976-77 pupil unit disbursement cost increased 6%.

Comments

1975-76 Budget. Has been adjusted to reflect negotiated salary adjustments. Year-end balance should be at or near projections unless (1) energy costs increase dramatically (2) interest rates fall below 6%. Historically, disbursements have been overstated while receipts have been understated in the budget projections.

1976-77 and 1977-78 Budget. Does not take into account any school closings. Earliest date for Junior High closing is 1977-78. More probable date is 1978-79. Elementary building likely in 1977-78. 1976-77 budget for current programs, is closely tied to 7% teacher salary increase. 1977-78 disbursements are based on an estimated increase of 6% in salary costs.

close one of the junior high schools is pending. Other plant related decisions concerning temporary or permanent construction to maintain program for junior high students have yet to be made.

While course offerings have not changed significantly, resources for learning opportunities have been reduced. Supplies have been cut and transportation services have been decreased. Fourth grade band, junior high wrestling and the computerized achievement monitoring (CAM) have been dropped. At the same time, budget cuts have been made which allow additions to existing programs and new programs. SLBP instruction has been expanded from one building to all buildings. Elementary physical education has been increased from one teacher for two buildings to one teacher per building. Girls' athletics have been added and the language arts program is scheduled for study and improvement. The District has assumed a leadership posture in staff development to counteract the rigidity and pessimism which accompany retrenchment.

Alternatives

Generating realistic alternatives for the future is difficult; making decisions concerning those alternatives is even more difficult. District A is looking ahead. One of the alternatives it will deal with in the present year involves the closing of one of the three junior high schools. Extensive data collection and analysis have indicated that closing the junior high can save about $200,000 per year in operating costs. At the same time, there would need to be additional capital expenditures to provide adequate physical education and other special facilities at the remaining two junior high schools.

The development of alternative grade structures, leading to extensive redistribution of the student population are being considered in the

schools. Alternatives being explored are:

- a 3-year middle school and 4-year high school (K-5-3-4)
- a 4-year high school (K-6-2-4)
- a two campus senior high (K-6-2-2-2)
- a 4-year middle school and 4-year high school (K-4-4-4)

The fiscal, staffing and programmatic implications of changing the organization for instruction will require careful study.

The possibility of cutting programs is an alternative that has been considered and will receive further consideration in the future if enrollments continue to decline. Sharing administrators with other districts is another way that some costs may be reduced. While the thought of reorganization with neighboring districts has been discussed, it appears to be a long way in the future. It is the policy of District A to carefully examine any alternative which offers economy of operation with minimum effect on educational program.

Discussion Questions

1. What are the outstanding characteristics of District A's educational program?
2. What do you think will be the future enrollment trends in District A?
3. What school plant facilities do you think the District will be operating five years from now?
4. How would you characterize District A's professional staff?
5. Take an affirmative or negative stand on the following issue:

   Resolved: In a local school district with declining enrollment, there is no point in planning beyond a two-year time period.

6. How many management techniques for dealing with declining enrollment are mentioned in the District A case study?

CASE STUDY NUMBER **2**

SCHOOL DISTRICT B
A SMALL CITY

MANAGING SCHOOL DISTRICTS with DECLINING ENROLLMENT

Prepared for
Human Resources Planning
Minnesota State Planning Agency
by the
Bureau of Field Studies and Surveys
Department of Educational Administration
College of Education
University of Minnesota
April 1976

FOREWORD

These case study materials were prepared to assist school officials and interested citizens in dealing with problems associated with enrollment decline. The case study approach is most useful in dealing with complex problems where several solutions are possible and one "right" answer is not implicit in the data.

The subjects in these case materials are actual districts in Minnesota. The districts were selected because their enrollments had declined at least ten percent or 100 students from 1970-71 through 1974-75. Secondly, the districts were chosen as being representative of differences in size and community background. None of the cases are offered as complete studies of the districts involved. While real data and management actions are reported, the cases themselves were written as study materials intended to stimulate discussion and not to present a complete report on the selected district. Fairly extensive data were included in the materials when available because of the authors' conviction that planning for declining enrollment must be data based. While there is much similarity in the nature of problems among the five districts, important differences do exist.

The Bureau of Field Studies and Surveys and the State Planning Agency wish to thank officials in the local districts and the Minnesota Department of Education who generously gave of their time and talent in providing information for the case study materials.

EXECUTIVE SUMMARY

District B had enjoyed a leadership position in public education for many years. In pioneering programs in kindergarten, special, vocational and junior college education, it reflected the spirit of the city of 26,000 people which it served. Three forces converged to shape the climate of District B in the early 1970's. District B being a high expenditure district, the Omnibus Tax Law of 1971 imposed significant expenditure limitations. Enrollment declined from a high of 7,778 students in 1969-70 to 6,437 students in 1975-76; a drop of 1,341 students or 17 percent for the seven-year period. The future plans of the city's principal employer are uncertain, creating a feeling of apprehension about the future of the city's economy.

In carrying out the Board's commitment to a balanced budget, it has been necessary to make many staff reductions and to close three elementary schools. An effort to raise additional funds through a supplemental levy referendum was defeated four to one. The biggest change in District B has not been in enrollment, but in attitude. The big change was the realization by the staff and citizens that the direction of District activities can no longer be the forward-looking growth pattern of the past.

Retrenchment actions in District B have generated strenuous pressures and demands on management. Insisting that management take its share of the cuts has resulted in a serious erosion of management capability. Enrollments have declined faster than aids have increased and the District cannot keep up with inflation. In addition to the problems of staff reduction and building closings, the District faces

a growing rigidity to protect positions and the status quo, a deteriorating high school building and increasing costs.

District B changed its organization for instruction from K-6-3-3 to K-6-2-4 in order to better utilize plant facilities and to reduce staff positions. Future organizational changes are being contemplated in order to serve fewer students more effectively. If present trends continue, outdated texts will be harder to replace, fewer electives will be offered, and fewer services will be offered. Budget planning for good education must not only balance revenues and expenditures, but must allow for program improvement and change.

CASE STUDY NO. 2

The School District

School District B serves a medium-sized city in south central Minnesota. The District's K-12 student enrollment peak was reached in the school year 1969-70 with 7,778 students. The beginning of the year enrollment in 1975-76 was 6,437 students, a decrease of 1,341 students or 17.2 percent during this seven-year period. District B currently operates one administrative building, one high school, one junior high, eight elementary schools and an area vocational technical institute. The District's organization for instruction is K-6-2-4. The School District, in conjunction with a community college, sponsors a recreational center in a school building that once served as an elementary school but has been closed due to enrollment decline. Another closed elementary school building is now being used as a senior citizens' center. During 1975-76 the District's total staff included 438 certificated personnel and 206 non-certificated personnel for a total of 644 employees. The District was classified as a high expenditure district with a 1970-71 expenditure of $756 per pupil unit compared with an adjusted state-wide mean of $663.[1] The District's 1974 total assessed valuation was $68,738,739. Non-agricultural property accounted for 87 percent of the total.

Historically, School District B has been a regional and state leader in several areas of education including junior college, vocational-technical, kindergarten and special education. The District's activities reflect the bigger, better, upward, competitive tone of the community. Declining enrollment, the resulting retrenchment, and other factors in the community have combined to change the organizational climate of the

District. In February 1975, voters defeated a referendum for a seven-mill increase by a margin of 4 to 1. Since the District's 1974 retrenchment, two School Board members were not reelected and three chose not to run for reelection.

The Community

School District B is located in a city of 26,000 people. The county, with twice the population of the city, has a high number of single parent families and many elderly people. The economy of the community is linked to a large food-processing plant, agriculture and related businesses. As the School District provided leadership in the field of education, the food-processing business provided leadership in labor relations. This leadership included higher worker salaries, employee incentive pay and a profit-sharing program for employees. The community is a union town with a prevailing belief that everyone has the inherent right to organize and 81 percent of manufacturing employees are unionized. The School District also has strong labor organizations.

The aging and diverse work force is made up of 44 percent women and numbers 12,500 workers. The average household income is approximately $16,000. Presently the area is experiencing economic difficulties which reflect the problems experienced by the food-processing industry. One related business has already relocated in an area with lower salaries. Other businesses are hesitant about locating in the city because of the area's high wage scale. The food-processing company faces major policy decisions involving remodeling and/or relocation.

Many features and activities make the community an attractice place to live. In addition to the availability of all basic services, the

community has a symphony orchestra, theatre, artist series and festival attractions. There are 31 city parks and two golf courses. The services and amenities combine to provide a source of civic pride and a pleasant urban environment in which to live.

Elementary Program

District B's elementary instructional program is based on a modified self-contained classroom organization. The elementary program is supplemented and supported by Special Learning and Behavioral Problems (SLBP) resource teachers, Title I reading and math teachers, media generalists, educable mentally retarded (EMR) teachers, hearing impaired teachers, trainable mentally retarded (TMR) teachers, art teachers, health services personnel, music teachers, physical education teachers and teachers aides and assistants.

The following subjects are taught in the elementary grades:

- Art
- Band
- Dictionary Skills
- Handwriting Skills
- Health
- Mathematics
- Oral Expression
- Oral Reading
- Physical Education
- Reading
- Science
- Social Studies
- Spelling
- String Music
- Title I Math
- Title I Reading
- Vocal Music
- Written Expression

Junior High Program

One of the District's responses to declining enrollment has been a change in organization for instruction which created a four-year high school and one junior high which houses only grades seven and eight. At the junior high level, all courses are required for students in grade 7 except for a choice between music and independent study. The grade 8 students have an additional one semester elective. The curriculum for

Grade 7

Required:

English
Social Studies
Science
Mathematics
Home-Industrial Careers
Reading (1 semester)
Physical Education
Art (1 semester)

Elective:

Band, Orchestra, Chorus or Independent Study

Grade 8

Required:

English
Social Studies
Science
Mathematics
Home-Industrial Careers
Reading (1 semester)
Physical Education

Elective:

Band, Orchestra, Chorus or Independent Study

For 1 semester elective:
Exploratory Foreign Language
Drama/Speech
Art

Senior High Program

A total of $20\frac{1}{2}$ credits earned in grades 9-12 are needed for graduation. During the four years of high school, there are $13\frac{1}{2}$ required credits, allowing the students 7 elective credits. Subjects included in the $13\frac{1}{2}$ required credits are the following:

Department	Credit(s)	Grade(s)
Language Arts		
English 9	1	9
Two courses each year	2	10,11,12
Social Studies		
American History I	1	9
American History II	1	10
World History	1	11
Social Studies	1	12
Physical Education		
9th grade	1	9
10th grade	1	10
Science		
9th grade Science	1	9
Biology, Chemistry, Physics	1	10,11,12
Health	$\frac{1}{2}$	10,11,12
Mathematics		
9th grade general math or 9th grade elementary algebra	1	9
Mathematics elective	1	10,11,12

Full year courses meeting one period per day are recorded as ½ credit per semester or 1 credit for the year. Two credits in music performing groups (Band, Orchestra, Choir) meeting five days per week may be applied toward graduation. Each 9th grade student must select a one-credit elective. All available courses, the grade level at which they are offered and the number of credits are listed on the following page.

Co-Curricular Activities

The vast majority of co-curricular activities are in the area of athletics. Senior high non-athletic activities include debate, drama, future homemakers, pom-pom girls, publications, speech festivals and contests and student council. Junior high non-athletic activities include student publications and drama. Non-athletic activities for elementary students are student council and safety patrol.

A wide variety of senior high boys' athletics includes A, B and 9th grade teams in football, basketball and baseball. Two boys' teams are provided in wrestling, swimming, track and golf. Single teams exist in hockey, gymnastics, cross country and tennis. Boys' junior high athletic opportunities include both 7th and 8th grade teams in basketball, wrestling, baseball, track and single teams in swimming, gymnastics, golf and tennis.

Girls' senior high athletics provides for single teams in gymnastics, basketball, volleyball, tennis, swimming, track and golf. Girls' junior high athletic opportunities include both 7th and 8th grade teams in basketball and volleyball and single girls' junior high teams in track, golf, gymnastics and swimming.

Department/Course	Credit(s)	Grade(s)
Art		
Art Fundamentals	1	9,10,11,12
Drawing	½	10,11,12
Painting	½	10,11,12
Sculpture	½	10,11,12
Printmaking	½	10,11,12
Jewelry Making	½	10,11,12
Crafts	½	10,11,12
Cartooning	½	10,11,12
Pottery Making	½	10,11,12
Photography	½	10,11,12
Commerical Art	½	10,11,12
Modern Art	½	10,11,12
Design	½	10,11,12
Lettering	½	10,11,12
Fibers	½	10,11,12
Business Education		
General Business	1	9,10
Typing I and II	1	9,10,11,12
Shorthand I and II	2	11,12
Office Procedures	½	11,12
Business Machines	½	10,11,12
Business Law I and II	1	11,12
Accounting I, II and III	1½	11,12
Everyday Economics	½	11,12
Economics	½	11,12
Model Office	1	11,12
Marketing I and II	2	11,12
Foreign Languages		
French I, II, III and IV	4	9,10,11,12
German I, II and III	3	9,10,11,12
Practical Writing German	½	12
Conversation German	½	12
Spanish I, II and III	2½	9,10,11,12
Introduction to Spanish Culture	½	11,12
Conversational Spanish	½	11,12
Traveler's Spanish	½	10,11,12
The German Traveler	½	10,11,12
French for Travelers	½	9,10,11,12
Home Economics		
9th Grade Home Economics	1	9
Today's Consumer	½	10,11,12
Housing and Interior Design	½	10,11,12
Marriage and Family	½	10,11,12
Clothing 1 and II	1	10,11,12
Tailoring	½	11,12
Foods I and II	1	10,11,12
Child Development	½	12
Humanities		
AIS Humanities	1	12
Industrial Arts		
Woodwork I, II and III	2½	9,10,11,12
Graphic Arts I and II	1½	9,10,11,12
Graphic Communications	2	11,12
Drafting I and II	2	9,10,11,12
Architectural Drafting I, II, III and IV	2	11,12
Painting and Decorating	1	12
Power Technology	1	11,12
General Metals I and II	3	10,11,12
Sheet Metals	1	10,11,12
Electricity	1	9,10,11
Electronics	1	10,11,12
Home Entertainment Equipment Repair & Maintenance	½	11,12
Vocational Electronics	2	11,12
Language Arts		
9th Grade English	1	9
Survey of English Literature	1	10,11,12

Department/Course	Credit(s)	Grade(s)
Language Arts (cont.)		
World Literature	½	10,11,12
The American Novel	½	10,11,12
Modern Poetry	½	10,11,12
Modern Drama	½	10,11,12
Short Stories	½	10,11,12
Minnesota Authors	½	10,11,12
Shakespeare	½	10,11,12
Humanities in Literature	½	10,11,12
Science Fiction	½	10,11,12
Current Popular Literature	½	10,11,12
Periodical Literature	½	10,11,12
Reading in Social Problems	½	10,11,12
Independent Reading	½	10,11,12
Reading Laboratories	½	10,11,12
Journalistic Writing I and II	1	10,11,12
Technical and Research Writing	½	10,11,12
Creative Writing	½	10,11,12
Writing for School	½	10,11,12
Academic Practices in Language	½	10,11,12
The Job Ahead	½	10,11,12
Linguistics	½	10,11,12
Semantics	½	10,11,12
Communications in the Mass Media	½	10,11,12
Film Study	½	10,11,12
Practical Speaking	½	10,11,12
Public Speaking	½	10,11,12
Discussion and Debate	½	10,11,12
Oral Interpretation	½	10,11,12
Radio Communications	½	10,11,12
Television Communications	½	10,11,12
Acting	½	10,11,12
Intro. to Theater Arts	½	10,11,12
Mathematics		
9th Grade General Math I	1	9
9th Grade Elementary Algebra	1	9
Elementary Algebra	1	10,11,12
Geometry	1	10,11,12
Senior High Math	1	11,12
Advanced Algebra	1	11,12
Trigonometry	½	12
Analytical Geometry	½	12
Pre-Calculus	1	12
Computer Science I and II	1	10,11,12
Music		
9th Grade Band, Orchestra, Choir		9
Concert Band	1	10,11,12
High School Orchestra	1	10,11,12
10th Grade Mixed Chorus		10
Variety Band	1	10,11,12
Variety Choir	1	10,11,12
High School Choir	1	11,12
Rock, Jazz and Popular	½	10,11,12
Beginning Guitar	½	10,11,12
The High School Chorale	1	11,12
Music Theory	1	10,11,12
Electronic Music	½	10,11,12
Physical Education		
9th Grade Physical Education	½	9
10th Grade Physical Education	½	10
Science		
Intro. Physical Science	1	9,10
Ideas & Investigations in Science	1	9,10
Biology	1	9,10,11,12
Patterns and Processes	1	9,10
Comparative Anatomy	½	10,11,12
Ecology	½	10,11,12
Chemistry	½	11,12
Organic Chemistry	½	11,12
Physics	1	11,12
Weather Forecasting & Astronomy	½	10,11,12

Supporting Services

While they have been affected by declining enrollments, a full range of supporting services are found in District B. All buildings have modern, well-stocked library-media centers. The availability of audio visual equipment and services is extensive.

Food services are provided in all buildings. Meals served in the elementary schools are prepared in a central kitchen.

District B contracts for pupil transportation. At the present time, about 65 percent of all students are transported. Transportation needs and costs have increased somewhat due to school closings as a result of enrollment decline.

The District has a broad range of pupil personnel services including a District-wide standardized testing program. The impact of declining enrollment has led to reduced counseling services. One counseling position has been eliminated and the number of days counselors have been employed beyond the regular school year has been reduced.

Enrollment Trends

Significant and persistent enrollment decline began in District B in the 1970-71 school year. Table 1 presents beginning-of-year enrollments for the period 1965-66 through 1975-76, the period during which the change from a stable to a declining enrollment district took place.

Kindergarten enrollment was at a high of 732 students in 1966-67. In all but two of the years since then, the number of kindergarten children has declined relative to the previous year. The 1975-76 number of 395 students is the smallest of any during the period, 337 students fewer than the high nine years earlier.

Table 1

BEGINNING-OF-YEAR ENROLLMENT HISTORY FOR SCHOOL DISTRICT B, 1965-66 THROUGH 1975-76

	K	1	2	3	4	5	6	Total 1-6	7	8	9	Total 7-9	10	11	12	Total 10-12	Total 1-12	Total K-12	Change
·66	715	556	610	556	559	546	603	3,430	640	611	527	1,778	572	588	532	1,692	6,900	7,615	--
·67	732	560	549	605	550	588	543	3,395	617	656	636	1,909	521	563	549	1,633	6,937	7,669	+ 54
·68	675	585	552	566	609	577	604	3,493	587	625	663	1,875	643	498	530	1,671	7,039	7,714	+ 45
·69	632	537	580	555	554	616	598	3,440	646	605	648	1,899	645	614	471	1,730	7,069	7,701	- 13
·70	653	526	530	580	553	584	642	3,415	606	647	601	1,854	628	633	595	1,856	7,125	7,778	+ 77
·71	540	532	510	528	570	560	585	3,285	670	592	649	1,911	603	590	595	1,788	6,984	7,524	-254
·72	499	470	519	517	537	571	571	3,185	624	667	611	1,902	655	603	569	1,827	6,914	7,413	-111
·73	452	459	469	513	534	540	576	3,091	597	631	672	1,900	618	626	556	1,800	6,791	7,243	-170
·74	410	405	454	448	535	539	540	2,921	597	598	630	1,825	683	579	587	1,849	6,595	7,005	-238
·75	458	375	399	453	435	520	531	2,713	540	604	591	1,735	624	631	533	1,788	6,236	6,694	-311
·76[a]	395	406	369	389	440	425	528	2,557	554	559	613	1,726	576	591	592	1,759	6,042	6,437	-257

[a]Even though the District adopted K-6-2-4 grade organization in 1975-76, the K-6-3-3 sub-totals e retained for ease of comparison.

In the elementary grades 1-6, the highest enrollment was recorded in 1967-68, 3,493 students. Each year after that it declined, to a low 2,557 students in 1975-76, 936 students fewer than the high eight years earlier.

Junior high enrollments began their decline somewhat more recently with the high of 1,911 students being reported for 1970-71. Each year following saw fewer students in junior high with 1,726 students enrolled in 1975-76. The five-year decrease from high to low enrollment was 185 students.

Senior high enrollments were growing during the first half of the period, though the growth was not steady. From 1969-70 through 1973-74, the picture was one of stability in the high school with enrollment varying between 1,788 and 1,856 students. This stability gave way to two years of decrease in 1974-75 and 1975-76. The decrease in those two years was 90 students to a six-year low of 1,759 students. While this low may not be significant in itself, it appears that the steadily declining junior high enrollments are beginning to work their way into the senior high years.

The K-12 total enrollment high was reached in 1969-70 with 7,778 students being reported. Annual decline since then has ranged from 111 to 311 students to a low for the entire 11-year period of 6,437 students in 1975-76. This enrollment is 1,341 students or 17 percent lower than the 1969-70 high.

School district census, particularly the section reporting numbers of students of pre-school age, is useful to the school administrators as an aid in determining numbers of elementary students to be served in future years. Table 2 presents the census history for District B

Table 2

SCHOOL CENSUS HISTORY FOR DISTRICT B, 1965 THROUGH 1975

School Census Year	Ages																						Grand Total 0-17
	0	1	2	3	4	5	Total 0-5	6	7	8	9	10	11	Total 6-11	12	13	14	15	16	(Not Att) 16	(Att) 17	Total 12-17	
1965	531	598	668	683	749	733	3,962	758	823	789	837	793	814	4,814	848	846	851	811	2	742	764	4,862	13,638
1966	484	537	626	649	694	748	3,738	729	754	813	779	833	778	4,686	803	838	839	829	3	800	729	4,841	13,265
1967	423	491	534	626	646	694	3,414	733	731	746	821	776	843	4,650	776	803	839	835	5	823	792	4,873	12,937
1968	403	456	496	536	633	633	3,157	655	740	716	751	815	767	4,444	831	771	815	837	2	827	812	4,895	12,496
1969	444	432	474	511	525	645	3,031	637	664	743	728	751	808	4,331	775	827	765	800	4	828	813	4,812	12,174
1970	419	469	442	487	516	537	2,870	648	618	645	724	736	740	4,111	799	763	823	757	12	774	805	4,733	11,714
1971	428	423	474	453	480	509	2,767	533	635	629	642	734	732	3,905	743	788	742	822	14	734	765	4,608	11,280
1972	301	423	421	491	411	459	2,506	502	524	618	610	640	700	3,594	729	730	781	761	11	802	738	4,552	10,652
1973	260	385	432	415	489	419	2,400	456	488	499	607	604	622	3,276	695	715	723	776	2	742	785	4,438	10,114
1974	310	309	400	425	426	472	2,342	414	444	496	484	592	592	3,022	608	690	708	726	10	736	725	4,203	9,567
1975	255	311	316	384	421	422	2,109	464	394	429	482	489	596	2,854	586	604	681	703	11	691	737	4,013	8,976

for the years 1965 through 1975. The greatest number of pre-school children during this period was counted in 1965. Every year since then a smaller number of 0-5 year olds have been counted. The high of 3,962 children in 1965 was 1,853 children or 46 percent higher than the 1975 low of 2,109 children.

Parochial and private school enrollments also must be considered as numbers of students to be served in future years are anticipated. Table 3 presents current enrollments in the four Catholic, two Lutheran and one other Protestant schools serving students residing in District B. One of the uncertainties facing District administrators is the year-to-year fluctuations in these enrollments. While they have been relatively stable in recent years, they are susceptible to rapid escalation or decline.

Table 3

1975-76 ENROLLMENTS IN PAROCHIAL SCHOOLS SERVING DISTRICT B RESIDENTS

	Enrollment by Grade												
School	K	1	2	3	4	5	6	7	8	9	10	11	12
Catholic (4 combined)	28	51	56	58	72	92	76	93	115	89	95	114	118
Central Lutheran	5	11	8	13	11	11	11						
St. Paul Lutheran		3	0	2	5	4	3	3	5				
Christian Academy			3	3	3	1	2	5	4	2	5		

District B administrators, concerned about the numbers of students likely to be in the schools in future years, have projected enrollments using a cohort-survival method based on end-of-year enrollment data. The five year projection for the 1975-76 through 1979-80 period is presented in Table 4.

The projection presented in Table 4 led District administrators to conclude:

1. . . . the figures here indicate the major decline in population and that the population probably will eventually level out at about 300 students per grade level.

2. The figures given in this projection would probably represent the upper limits of population. If there is appreciable variation from this, it will likely be on the lower side.

Table 4

DISTRICT B PROJECTION OF ENROLLMENTS FOR THE PERIOD 1975-76 THROUGH 1979-80, USING END-OF-YEAR DATA

	Grades													
Year	K	1	2	3	4	5	6	7	8	9	10	11	12	Total
1975-76	424	409	368	402	455	435	527	548	543	606	577	585	589	6,468
1976-77	422	383	397	373	403	458	441	548	549	545	594	547	552	6,212
1977-78	392	381	372	402	374	406	464	459	549	551	535	564	516	5,965
1978-79	301	354	370	377	403	377	411	483	460	551	540	508	532	5,667
1979-80	310	272	344	375	378	406	382	427	484	462	540	512	479	5,371

Experience has shown that the projection technique used by the District has uniformly resulted in projections higher than the enrollments that materialized. The case study team, also using a cohort survival technique, but with beginning-of-year enrollments, produced the enrollment forecast presented in Table 5. The District is currently looking at alternative methods of grade grouping to get maximal use of its buildings and assure effective programming.

District administrators indicate that as enrollment further declines the most likely method of grade grouping in the future will be K-5-3-4, even though the current grouping is K-6-2-4 in 1975-76. The projection will be discussed, therefore, in terms of the K-5-3-4 grouping.

Table 5

PROJECTED BEGINNING-OF-YEAR ENROLLMENTS FOR DISTRICT B,
FOR THE PERIOD 1976-77 THROUGH 1980-81

Year	K	1	2	3	4	5	Total 1-5	6	7	8	Total 6-8	9	10	11	12	Total 9-12	Total 1-12	Total K-12	Change
1975-76	395	406	369	389	440	425	2,029	528	554	559	1,641	613	576	591	592	2,372	6,042	6,437	
1976-77	402	355	400	360	387	434	1,936	425	542	563	1,530	559	609	539	551	2,258	5,724	6,126	- 311
1977-78	368	361	350	391	358	382	1,849	434	436	551	1,421	563	556	570	503	2,192	5,455	5,823	- 303
1978-79	296	331	356	342	389	356	1,771	382	446	443	1,271	551	560	520	532	2,163	5,205	5,501	- 327
1979-80	299	366	326	347	340	383	1,662	353	392	453	1,198	444	548	524	485	2,001	4,861	5,160	- 341
1980-81	284	269	262	318	346	335	1,530	383	363	398	1,144	453	441	513	488	1,895	4,569	4,853	- 307

Kindergarten enrollment will rise slightly for the first year of the projection period to a high of 402 students. Each year after that through 1980-81, the number is expected to decrease with the exception of 1979-80. The low during the period will be in 1980-81 when 284 kindergarten students are forecast, 111 fewer than in 1975-76, the last year for actual enrollment figures.

In the elementary grades 1-5, the projection indicates continually falling enrollment throughout the period to a low of 1,530 grades 1-5 students in 1980-81. This figure represents a decrease of 499 students in the five years of the forecast.

Middle school grades, 6-8, are expected also to experience continued decline falling 497 students from the 1975-76 actual count of 1,641 to the low of 1,144 forecast in 1980-81.

The senior high grades 9-12 are expected to decrease from a 2,372 students actual enrollment to 1,895 students forecast for 1980-81, a drop of 477 students during the five years.

In the K-12 totals, the annual decrease will, according to the projection, be in increments ranging from 303 to 341 students. The overall decrease to the K-12 low of 4,853 in 1980-81 is expected to be 1,584 students or 25 percent.

Plant Facilities

District B houses its elementary and secondary school programs in ten buildings: one senior high, one junior high and eight elementary schools. Three elementary buildings have been closed because of the declining enrollment trend; one closed at the end of 1968-69, opened again in 1970-71, then closed again in 1973-74; the second was closed at the end of the 1971-72 school year and the third was closed effective 1975-76. These closed buildings have been leased and are not currently being used for District related purposes.

Another change in building utilization occurred at the beginning of the 1975-76 school year; a junior high that had been operated in the same building complex as the senior high was closed, leaving only one junior high in the District. Concurrently, the secondary program was changed from a 3-3 grade organization to a 2-4 organization. This regrouping made it possible to house all junior high students (grades 7-8) in the one junior high facility. Table 6 summarizes the school plant facilities currently operated by District B.

A thorough analysis of the plant facilities in a district of this size is beyond the scope of the present case study. The data in Table 6 provide a very general overview of the District's plant facilities. While these data are not adequate for actual planning decisions, they are sufficient for consideration and discussion of the case.

Table 6

DESCRIPTIVE SUMMARY OF SCHOOL PLANT FACILITIES CURRENTLY OPERATED BY SCHOOL DISTRICT B

Building	Date of Construction	Date of Additions	Site Size (Acres)	Grades Served	Estimated Maximum Capacity	Current Enrollment	Comments
Elementary I	1909	1938	1.7	K-6	300[a]	279	Old, educationally obsolete, difficult to maintain.
Elementary II	1953	1957	8.2	K-6	634[b]	548	Economical, quality construction. Educationally good.
Elementary III	1958	--	10	K-6	217[b]	146	Small, therefore inefficient, otherwise adequate, semi-rural.
Elementary IV	1958	1967	9.5	K-6	417[b]	290	Excellent building. Addition has flexible pad format.
Elementary V	1915	1937 1948	1.7	K-6	550[a]	448	Older building, needs work. Inadequate site.
Elementary VI	--	1937 1949 1967	1.7	K-6	550[a]	472	Inadequate site. Original building gone. Additions constitute adequate facility.
Elementary VII	1952	1954	6.8	K-6	450[a]	287	Economical, quality construction. A good school facility.
Elementary VIII	1948	1954	6	K-6	525[a]	454	Good facility.
Junior High	1958	1939 1954	19.4	7-8	1,000[a]	1,386	A modern, functional facility. Excellent.
Senior High	1921	1972	4.6	9-12	2,240[b]	2,286	See text.

[a]Estimated by school official.

[b]Estimated by writing team.

The biggest plant facility problem involves the senior high school. While it has been remodeled and [illegible]oped to accommodate a rich and varied program, two of the three sections of the complex are simply, as the Buildings and Grounds Supervisor put it, ". . . suffering from old age." In general terms the building site is inadequate because there are no outdoor parking or physical education/athletic parking facilities. Students must walk to an athletic field eight blocks away. The inadequate site does not allow for an adequate buffer between student/school activities and the community at large.

The original (1921) section is a particular liability because of needed exterior wall tuck-pointing, heating plant overhaul, and upgrading of electrical service. The building would be very expensive to remodel and open stairwells, wood construction and other factors combine to create a fire-safety problem. The swimming pool in this section needs extensive overhaul including pool structure as well as filtration and heating equipment. The 1939 section is in somewhat better condition, but also needs fire doors, upgrading of electrical service and replacment of plumbing and ventilating equipment. The 1954 Annex is a modern facility which provides excellent space for industrial arts, music and physical education.

The dilemma the administration sees itself facing is the rapid deterioration of a large facility coupled with little hope of passing a bond issue to finance building a new one or extensive remodeling of the present one. A 1972 engineering study of the facility produced an estimate of 2.5 million dollars to bring the facility up to a safe and serviceable condition.

Staffing

Personnel are one of a district's most essential resources. Data on staffing reported in this case include 1) size of the certificated staff, 2) distribution of staff on the salary schedule, 3) implications of staffing for program in terms of class size, and 4) size of non-certificated staff. The size and distribution of the certificated staff most directly concerned with elementary and secondary programs are indicated in the following list:

Position	Number
Superintendent	1
Assistant Superintendent	1
Administrative Assistants	1
Directors	5
Supervisors (Elementary)	4
Secondary Principals	2
Assistant Secondary Principals	3
Elementary Principals	8
Psychologists	2
Nurses	3
Speech Therapists	4
Visually Impaired Teacher	1
IMC Cataloger	1
Social Worker	1
SLBP Leader Teacher	1
Home Instruction	1
Secondary	
Counselors	5
Teachers	170.5
EMR Teachers	4
IMC	5
Athletic Director	1
SLBP Teachers	3
TMR Teachers	1
Elementary	
Kindergarten Teachers	9.5
Grade Level Teachers	98
SLBP Teachers	7
Title I	9
Tree Teachers (Reading Program)	1
Hearing Impaired Teachers	2
EMR Teachers	2
TMR Teachers	5
IMC	7
Music (and Supervisors)	5
Media	1
Total	375

The staff members tallied in the above list do not include AVTI teachers and teachers contracted to serve two residential facilities, one for delinquent boys and one for handicapped children.

The distribution of the instructional staff on the salary schedule is presented in Table 7. The data in Table 7 indicate both the 1975-76 salary schedule and the numbers of elementary and secondary staff members on each step in each lane. Of the 361 staff members included in the table, 198 persons or nearly 55 percent are at the top of the schedule.

Another way to look at staff is in relation to students in terms of pupil teacher ratio and class size. The pupil-teacher ratios reported by District B officials were kindergarten 20:1, elementary grades 25:1, and secondary 21:1.

Table 8 indicates the distribution of class sizes by subject matter area in the junior high. Of the 355 classes, only 16 classes or 4.5 percent are over 30 students per class. Of the classes under 20 students per class, 58 percent are industrial arts/home economic classes.

Table 9 indicates the distribution of class sizes by subject matter area in the senior high. The data indicate that all senior high classes have 30 or fewer students except for some of the music, business education and physical education/health classes. Only 2.8 percent of the classes have 15 students or fewer, while 47 percent of all classes have 21-25 students per class.

The numbers of non-certificated staff are distributed as follows:

Position	Number
Custodial and Maintenance	87
Secretarial-Clerical	58
Teacher Aides and Assistants	61
Dental Hygenist	1
Attendance Supervisor	1
	208

Table 7

SALARIES AND NUMBERS OF CERTIFICATED PERSONNEL[a] BY EXPERIENCE AND LEVEL OF TRAINING IN SCHOOL DISTRICT B, 1975-7

Experience	Experience and Level of Training														Total Staff
	B.A.	No. of Staff	B.A. +15	No. of Staff	B.A. +30	No. of Staff	B.A. +45	No. of Staff	M.A.	No. of Staff	M.A. + 30	No. of Staff	6th Year	No. of Staff	
1	$ 8,682	10	$ 8,841	1	$ 9,054		$ 9,266	1	$ 9,479	3	$ 9,776		$10,095		15
2	9,054	13	9,240	1	9,511	1	9,776		10,042		10,361		10,701		15
3	9,537	6	9,750	5	10,053	2	10,361	1	10,669		11,020		11,376		14
4	10,021	7	10,260	2	10,595	2	10,945	1	11,296		11,679		12,050		12
5	10,504	5	10,770	2	11,137	3	11,530	1	11,923	3	12,337		12,726		14
6	10,998	4	11,280	6	11,679		12,114		12,550	1	12,996		13,400		11
7	11,471	2	11,790		12,221	4	12,699	1	13,177	1	13,655		14,075		8
8	11,955	2	12,300	4	12,762	5	13,283	3	13,804	4	14,314	2	14,750		20
9	12,438	1	12,810	3	13,304	1	13,868	6	14,431	3	14,973		15,425	4	18
10	12,922	5	13,320	3	13,846	1	14,457	3	15,058	1	15,632		16,099		13
11	13,405		13,830	1	14,388	4	15,037	1	15,685	3	16,291		16,764		9
12	13,889		14,341	2	14,932	1	15,621	4	16,312	5	16,950	1	17,449	1	14
13	14,567	33	15,045	21	15,661	18	16,368	24	17,075	45	17,723	14	18,233	43	198
TOTAL		88		51		42		46		69		17		48	361

[a]Does not include vocational school personnel or persons with less than B.A. training level.

Table 8

JUNIOR HIGH SCHOOL CLASS SIZE, SCHOOL DISTRICT B

Subject	Class Size 1-15	16-20	21-25	26-30	31-35	Over 35	TOTAL
Mathematics		3	27	17			47
Music		1	8	8	1	6	24
Social Studies			31	12			43
Business Education							
Agriculture							
English & Language Arts		2	37	11			50
Art			7	5			12
Reading		2	9	7			18
Science			27	15			42
Physical Education/Health	2	10	6	16	8	1	43
Home Economics/ Industrial Arts	2	49	8				59
Foreign Language		1	2	1			4
EMR	7						7
TMR	6						6
TOTAL	17	68	162	92	9	7	355
PERCENT	4.8	19.2	45.6	25.9	2.5	2	
CUMULATIVE PERCENTILE	4.8	24	69.6	95.5	98	100	

Table 9

SENIOR HIGH SCHOOL (9-12) CLASS SIZE, SCHOOL DISTRICT B

Subject	Class Size 1-15	16-20	21-25	26-30	31-35	Over 35	TOTAL
Mathematics		4	40	22			66
Music	2	4	3		1	11	21
Social Studies		1	39	51			97
Business Education	2	14	8	21	16		61
Agriculture		2	1	1			4
English & Language Arts	3	25	77	12			117
Art	2	20	12				34
Reading							
Science		4	26	30			60
Physical Education/Health	2	3	23	24	7		59
Home Economics		3	15	3			21
Industrial Arts	3	6	28	3			40
Foreign Language	3	1	10	7			21
EMR							
TMR							
TOTAL	17	87	282	180	24	11	601
PERCENT	2.8	14.5	46.9	30	4	1.8	
CUMULATIVE PERCENTILE	2.8	17.3	64.2	94.2	98.2	100	

Receipts and Expenditures

The data in Table 10 indicate selected revenue receipts for the General Fund by level of source from 1970-71 through 1974-75. The data for 1970-71 are not comparable to those of subsequent years because they include revenue associated with operation of the vocational school. The drop in receipts from local sources in 1972-73 reflects a change from cash to modified accural accounting. With these qualifications, it is apparent that revenues have risen during the period in spite of enrollment decline.

Table 10

GENERAL FUND REVENUE RECEIPTS IN SCHOOL DISTRICT B BY SOURCE LEVEL, 1970-71 THROUGH 1974-75

	Year				
Level/Source	1970-71	1971-72	1972-73	1973-74	1974-75
Local[a]	$2,743,103	$2,442,569	$1,562,807	$2,200,334	$2,159,406
County	69,513	29,259	97,508	66,238	59,398
State	4,320,547	4,462,720	5,283,354	5,584,866	5,758,137
Federal	163,267	211,068	168,925	94,354	129,305
TOTAL	$7,296,430	$7,145,616	$7,112,594	$7,945,792	$8,104,246

[a]Amounts do not include sales of materials and abatements.
Source: Annual Reports, State Department of Education

The data in Table 11 indicate selected General Fund expenditures by function for 1970-71 through 1974-75. While the 1970-71 data include vocational school expenditures, the trend from 1971-72 through 1974-75 is clearly an upward trend. These increased General Fund expenditures are reflected in the rising adjusted maintenance expenditures per pupil unit in Table 12. The data in Table 12 indicate that as the number of pupil units in ADM decreased from 8,709 in 1971-72 to 7,723 in 1974-75, the

Table 11

GENERAL FUND EXPENDITURES BY FUNCTION BY YEAR FOR SCHOOL DISTRICT B, 1970-71 THROUGH 1974-75

Function	Year 1970-71	1971-72	1972-73	1973-74	1974-75
Administration (100)	$ 216,640	$ 227,890	$ 258,359	$ 282,302	$ 351,812
Instruction (200)	5,801,846	5,583,990	5,858,291	6,056,094	6,147,996
Attend. & Health (300-400)	61,603	65,374	67,969	74,021	58,771
Transportation[a] (500)	258,665	270,162	351,071	385,617	424,214
Operation of Plant (600)	704,301	746,959	773,422	824,454	831,592
Maintenance of Plant (700)	257,204	210,327	190,443	197,611	221,184
Fixed Charges (800)	375,326	391,970	395,684	464,864	488,719
TOTAL	$7,675,585	$7,496,672	$7,895,239	$8,284,963	$8,524,288

[a] Separate fund starting 1973.

Source: Annual Reports, State Department of Education.

Table 12

PUPIL UNITS AND UNIT COSTS IN ADJUSTED MAINTENANCE EXPENDITURES IN AVERAGE DAILY MEMBERSHIP FOR SCHOOL DISTRICT B, 1970-71 THROUGH 1974-75

Selected Data (ADM)	Year 1970-71[a]	1971-72	1972-73	1973-74	1974-75[b]
Resident Pupil Units	8,712	8,709	8,620	8,072	7,723
State Median	NA	938	953	948	NA
Adj. Maint. Cost PPU[c]	$824	$819	$866	$952	$1,008
State Median	$636	$681	$722	$780	NA
Foundation Aid PPU	$257	$386	$533	$578	$599
State Median	NA	$346	$468	$506	NA
Bonded Debt PPU	--	$1,154	$443	$658	$631
State Median	$710	$693	$701	$713	NA

[a] All 1970-71 reported in ADA and adjusted to ADM with exception that Bond Debt PPU and its state median are ADA.

[b] 1974-75 data are preliminary data as of January 16, 1976.

[c] Adjusted maintenance cost excludes expenditures for veterans training, community services and receipts from sale of lunches, materials, student activities, and refunds as specified by the State Departmnet of Education for a particular year.

Source: Selected Data Reports, State Department of Education.

expenditure per pupil unit increased from $819 to $1,008. The District levies the maximum for its General Fund, is committed to a balanced budget, and attempts to maintain a very small cash balance of $200,000 in the General Fund.

Responses to Enrollment Decline

Staff reductions and building closings have been the most significant actions taken by School District B in response to declining enrollment. Three elementary schools have been closed, one in 1971-72, one in 1972-73 and one in 1975-76. In 1974-75 a junior high school located in the senior high building was eliminated and all 7th and 8th graders are now located in one buildng and a four year senior high was established.

Staff cuts during the past three years have included; one assistant high school principal, one assistant junior high principal, one junior high principal, director of elementary education, assistant director of special services, one assistant superintendent, two and one-half elementary principals, an assistant business manager and a substantial number of teachers. The exact number by year is difficult to trace because of attrition and transfers. In 1974-75 elementary physical education and art positions were reduced tc one position each. Teacher representatives renegotiated preparation time and these positions were again filled.

Some of the other actions have included elimination fo field trips, drastic supplies reduction, elimination of the Council for Quality Education (CQE) coordinator's position, cutting some of the extra-curricular activities at the senior high level, reducing travel reimbursements for staff and hiring fewer substitutes. The budget is being finalized and students are being registered in December for next year to know staff requirements. All departments must live within the budget.

To shift the focus of this case from the "what" of reducing actions to the "process" of cutback decisions, the following materials related to the Board of Education meeting of March 3, 1975 are provided. Prior planning and analysis indicated that if an excess levy referendum were not submitted to the voters or if it were submitted and failed, slightly over $650,000 would have to be cut from the budget. On February 18, 1975 the levy for 7 mills ($493,000) was defeated by a 4 to 1 vote. There was no doubt that drastic cuts had to be made. The administration prepared the following list of possible cuts which total $985,727.

ADMINISTRATION'S RECOMMENDATIONS FOR BUDGET REDUCTIONS

Certified Staff:			
Teachers ---			
Elementary staff	(7.5)	$ 75,000	$ 120,000
Elementary School III Staff	(4.5)	45,000	
Secondary staff	(?)		
Other Certified Staff ---			
Counselor	(1.0)	$ 14,158	
Secondary Media Generalist	(2.0)	31,015	
Elementary Media Generalist	(3.0)	44,335	
Elementary art	(1.0)	10,000	
Elementary physical education	(1.0)	10,000	
Nurses	(2.0)	28,000	
High school agriculture	(1.0)	8,096	
($17,792 with one-half reimbursable)			
Elementary string & instrumental music	(2)	24,616	
Developmental Reading (Gr. 9-12)	(2.0)	20,000	$ 191,020
Administration ---			
Junior high principal	(1.0)	$ 22,500	
Director of elementary education	(1.0)	24,646	
Junior high assistant principal	(1.0)	17,000	
Assistant high school principal	(1.0)	10,000	
Assistant computer director	(1.0)	13,000	
Elementary principal	(2.0)	37,444	$ 124,590
TOTAL OF CERTIFIED STAFF REDUCTIONS			$ 435,610
Non-Certified Staff:			
Secretaries ---			
Nurses' office	(1.0)		
Elementary education office	(1.0)		
Audio-visual office	(1.0)		
Business office	(.5)		
Junior high office	(2.0)		
Senior high office	(1.0)		$ 26,070
Custodians ---			
Custodian positions	(15.0)		$ 130,459

Aides and Assistants ---			
Special education aides	$ 2,500		
Teacher aides (elementary & secondary)	17,000		
Teacher assistants (elementary)	24,000	$ 43,500	
TOTAL OF NON-CERTIFIED STAFF REDUCTIONS			$ 200,029
Other:			
Instructional supplies		$ 27,000	
Extended contracts for counselors		2,100	
Extended contracts for media generalists		4,600	
Park & Recreation overtime		2,500	
Not mailing report cards		2,500	
K-6 intramural program		4,050	
7-8 intramural program		4,300	
7-8 athletic program		13,165	
Jr. High athletic coordinator		740	
Football equipment manager		350	
Extra-curricular activities (Catalina Club, debate, drama, cheerleaders, junior high newspaper, Pom Pom Girls, publications, music --marching band, orchestra, chorus, etc.,-- speech festivals and contests)		10,692	
Curriculum and instruction lead teachers		60,000	
Assistant athletic coaches (boys)			
"B" Squad basketball	$ 990		
"B" Squad football	990		
"B" Squad baseball	670		
All other assistant coaches (Does not include Head "B" coaches)	11,114	13,764	
Assistant athletic coaches (girls)		2,502	
Athletic shoes (basketball, football, track, wrestling)		900	
Increase adult athletic tickets by 25¢		5,000	
Weight training at High School		425	
Psychologist (1) (presently not on staff and would not be hired)		16,000	
SLBP teachers (4) (presently not on staff and would not be hired)		40,000	
Fringe benefits (not presently granted)		100,000	
Close Elementary School III			
Custodian (1)	$ 13,000		
Secretary (1)	5,300		
Utilities	2,200		
Fringe benefits	1,500	22,000	
In-service		10,000	
Sabbatical leaves		1,500	
Yearbook and Newspaper		6,000	
TOTAL OF OTHER REDUCTIONS			$ 350,088
TOTAL REDUCTIONS			$ 985,727

The ground rules for the meeting were that at least $600,000 worth of items were to be cut from the list. It was further understood that any difference between actual cuts and $600,000 would have to come from funds for salary increases. A large crowd was present. The minutes of the meeting tell the dramatic story.

OFFICIAL MINUTES: Board of Education — SPECIAL MEETING
7:00 P.M., Monday, March 3, 1975

MEMBERS PRESENT: Mr. A, Mr. B, Mr. C, Ms. D, Ms. E, Mr. F, Superintendent G

MEMBERS ABSENT: Mr. H

The meeting was called to order by Mr. A, vice-chairman of the Board of Education in the absence of Chairman H.

PURPOSE OF MEETING: The purpose of this special meeting was to make final decisions on staff and programs to be terminated or reduced in the school district to alleviate the $650,000 deficit in the 1975-76 budget.

APPROVAL OF AGENDA: Motion was made by Ms. E, seconded by Mr. B and carried the agenda be adopted with one addition . . .

DELEGATIONS: Acting chairman A opened the meeting to those people who had indicated a desire to be heard. the following people spoke:

Mr. I, Principals' Association
Mr. J, letter in support of the Director of Personnel
Letter was read by Acting Chairman from the Federation of Teachers in support of the Director of Personnel position

PRINCIPAL FOR JUNIOR HIGH SCHOOL: Moved by Ms. D that the recommendation of the administration be accepted and _____ be transferred to the Junior High School and be appointed Principal for the 1975-76 school year. Motion was seconded by Mr. C and carried unanimously.

BUDGET REDUCTIONS: Motion by Mr. C, seconded by Mr. B the elementary staff be reduced to 7.5 positions for the 1975-76 school year. Motion carried.

Moved by Ms. D, seconded by Mr. B the board not close Elementary School III for the 1975-76 school year. Motion carried.

Motion by Mr. B, seconded by Ms. E the counseling staff be reduced by one position. Motion carried.

BUDGET REDUCTIONS: Moved by Ms. D, seconded by Mr. F to retain the three elementary media generalists positions. Motion carried.

Motion by Mr. F, seconded by Mr. B the secondary media generalists positions be reduced by one. Motion carried.

Moved by Mr. F, seconded by Ms. E the elementary physical education department be reduced by one position. Motion carried.

Motion by Ms. D, seconded by Ms. E to retain the two elementary nursing positions. Motion carried.

Motion by Ms. D, seconded by Mr. B to retain the high school agriculture teaching position.

Moved by Mr. C, seconded by Ms. D to retain the elementary string and instrumental music positions. Motion carried.

Motion by Ms. D, seconded by Mr. B to retain the two positions in the secondary developmental reading program. Motion carried.

Moved by Mr. C, seconded by Mr. F to eliminate one position of junior high principal. Motion carried.

Motion by Mr. B, seconded by Ms. E to eliminate the position of director of elementary education. Motion carried.

Moved by Mr. F, seconded by Mr. C to eliminate one position of assistant junior high school principal. Motion carried.

Motion by Ms. D, seconded by Ms. E to retain the two elementary principal positions. Motion carried with Mr. B voting against.

Moved by Mr. B, seconded by Mr. C the secretarial staff be reduced by 5.5 positions. Motion carried.

Motion by Mr. B, seconded by Ms. E to adopt options one and two of the proposal presented by Mr. S as it relates to the custodial staff. Motion carried. Option one will reduce the custodial staff by three positions and option two will transfer five custodial positions to the food services department.

Moved by Mr. B, seconded by Ms. E the statement relating to increasing the cost of meals for student and staff for the 1975-76 school year be deleted from option two. Motion carried.

BUDGET REDUCTIONS: Motion by Mr. F, seconded by Mr. C two teacher aides positions for EMR classes be eliminated. Motion carried.

Moved by Mr. B, seconded by Ms. E the funds for teacher aides at the elementary and secondary level be reduced to $17,000. Motion carried.

Motion by Mr. B, seconded by Ms. D to retain the teacher assistant positions in the elementary IMCs. Motion carried

Moved by Mr. F, seconded by Mr. C to reduce the instructional supply budget by $27,000. Motion carried.

Motion by Mr. B, seconded by Mr. F to eliminate the extended contracts for counselors and media generalists. Motion carried. Counselors will continue to be employed for three days prior to the contract year.

Moved by Mr. F, seconded by Ms. D to retain the Park and Recreation Department overtime pay. Motion carried.

Motion by Mr. F, seconded by Ms. E to discontinue the mailing of secondary school report cards. Motion carried.

Moved by Mr. F, seconded by Mr. B to retain the K-6 intramural program. Motion carried.

Motion by Mr. F, seconded by Ms. E to reduce and reorganize the 7-8 intramural and athletic program by nearly $5,300. Motion carried.

Moved by Mr. B, seconded by Ms. D to retain the athletic coordinator and the football equipment manager. Motion carried.

Motion by Mr. C, seconded by Mr. F three areas -- junior high drama, junior high newspaper and after school supervision -- in the extra-curricular area by reduced by $1,650, but not eliminated. Motion carried.

Moved by Mr. F, seconded by Mr. B to reduce the extra-curricular funds by approximately $945 as per the recommendation of Mr. H -- ice hockey arena rental, consolidation of cheerleaders, and other miscellaneous areas. Motion carried.

Motion by Mr. F, seconded by Mr. B the board take no action at this time on the matter of students in the athletic program of basketball, football, track and wrestling purchasing their own shoes. Motion failed to carry with Ms. E, Mr. C and Mr. A voting against.

BUDGET REDUCTIONS: Moved by Mr. C, seconded by Ms. E the school district not purchase shoes for students in the athletic programs. Motion carried.

Motion by Mr. F, seconded by Ms. E the board instruct the administration to work with the athletic department to give a recommended cost increase on the adult season tickets for athletic events. Motion carried.

Moved by Mr. B, seconded by Mr. C to eliminate the weight training program at the high school. Motion carried.

Motion made by Mr. C, seconded by Ms. D to retain funds in the budget for employment of an additional school psychologist. Motion carried.

Moved by Ms. E, seconded by Ms. D the administration continue to search for and employ four additional SLBP teachers. Motion carried.

Motion by Ms. D, seconded by Mr. F to retain the in-service program for the teaching staff. Motion carried.

Moved by Mr. B, seconded by Mr. C the school district not grant sabbatical leaves for the 1975-76 school year. Motion carried, with Ms. D voting against.

Motion by Mr. F, seconded by Ms. D to retain the yearbook and newspaper programs at an approximate cost of $6,000. Motion carried with Mr. C and Mr. B voting against.

Acting Chairman Mr. A declared a fifteen minute recess and announced the meeting would reconvene at 10:20 P.M.

Moved by Ms. D to reduce the secondary staff by four positions rather than nine positions. Motion failed for lack of a second.

Motion by Mr. B to reduce the secondary staff by nine positions. Motion failed for lack of a second.

Moved by Ms. D, seconded by Ms. E to reduce the secondary staff by five positions. Motion failed with Mr. C, Mr. F and Ms. E voting against.

Motion by Mr. B, seconded by Mr. F to reduce the secondary staff by nine positions and reallocate $30,000 to the Curriculum and Instruction Lead Teacher Program, and give it a second look. Motion carried.

Moved by Mr. C, seconded by Mr. B to eliminate one position in the elementary art department. Motion carried with Mr. F voting against.

BUDGET REDUCTIONS: Motion by Mr. C, seconded by Ms. E to reduce one position of assistant high school principal. Motion carried with Ms. D and Mr. F voting against.

Moved by Mr. F, seconded by Mr. B to eliminate the position of assistant computer director. Motion failed with Ms. D, Mr. C and Ms. E voting against.

Motion by Mr. B, seconded by Mr. F to retain the assistant coaches -- both boys and girls -- and to leave the program intact. Motion carried with Ms. E voting against.

Moved by Mr. F, seconded by Ms. E the board take no further action on budget reductions at this time. Motion carried.

RESOLUTION INTRODUCED: Mr. F moved adoption of the following resolution:

"BE IT RESOLVED that due to uncertainty of funding, financial limitations, decrease in enrollments, discontinuance of positions, and change in organizational structure it is necessary to terminate certain probationay teachers and to place on unrequested leave certain tenure teachers.

BE IT FURTHER RESOLVED that the administration prepare a list of said teachers and submit for appropriate action at a meeting to be called on Friday, March 7, 1975 at 12:00 noon in the District Administration Building."

The motion was seconded by Ms. E and on a roll call vote, all members present voted aye. Motion carried.

ADJOURNMENT: Moved by Mr. B, seconded by Mr. F, the meeting adjourned at 11:30 P.M. Motion carried.

_____
Clerk

Alternatives for the Future

As enrollment continues to decline, more actions like those taken at the March 3, 1975 Board meeting will be necessary. District B will again have to close one or more elementary schools. Staff will have to be reduced to maintain a balanced budget. Staff cutbacks will be associated

with increasing staff maturity, higher unit costs and larger class sizes. More combination grades can be expected in the elementary schools. Supplementary instruction in elementary art and physical education may again have to be dropped. Support staff for libraries and IMC may have to cut back.

At the secondary level, programs and co-curricular activities will probably be reduced. Athletics for boys and girls and music will probably survive, but clubs and low participation sports face an uncertain future. The senior high building will continue to be a problem. At some point, grade 6 probably will be accommodated at the present junior high to facilitate better plant utilization at both elementary and secondary levels.

The biggest management challenge and educational problem will be to offset the rigidity and pessimism that accompany program reduction. As the question of survival looms greater, there is danger that student needs and program development will receive inadequate attention. The District has already suffered a silent erosion of supervisory and management potential as a result of the administrative cuts that have been made. The former leadership posture of the District needs to be revived, not to deal with the bigger-better growth syndrome but with the more difficult challenge of delivering a good educational program in ways that adapt themselves to smaller numbers.

Study Questions

1. What characteristics does District B have which make it possible to deal with the problems associated with declining enrollment? Which characteristics make it difficult to deal with these problems?

2. What role do you think the community will play in future School District decisions?

3. How would you describe the educational program in District B and what guidelines would you recommend in future cutback decisions?

4. What do you speculate will be the long-range enrollment trends in District B? Why?

5. What are the plant facility problems in the District and what can be done to alleviate them?

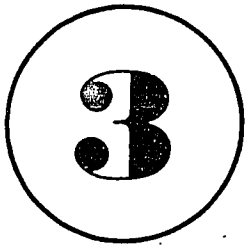
6. What characteristics of the staff make it an asset to the District? What characteristics might be considered liabilities?

7. How would you describe the financial future of District B?

8. Had you been the chief administrator in District B in 1970 and by some clairvoyant means were allowed to read this case before it happened, how would you have prepared the District for the events that were to happen during the next five years?

9. How would you describe the School Board meeting of March 3, 1975? Why do you think the chair called for a recess?

CASE STUDY NUMBER



SCHOOL DISTRICT C
A COMPLETE AGRICULTURAL SERVICE CENTER

MANAGING SCHOOL DISTRICTS with DECLINING ENROLLMENT

Prepared for
Human Resources Planning
Minnesota State Planning Agency
by the
Bureau of Field Studies and Surveys
Department of Educational Administration
College of Education
University of Minnesota
April 1976

FOREWORD

These case study materials were prepared to assist school officials and interested citizens in dealing with problems associated with enrollment decline. The case study approach is most useful in dealing with complex problems where several solutions are possible and one "right" answer is not implicit in the data.

The subjects in these case materials are actual districts in Minnesota. The districts were selected because their enrollments had declined at least ten percent or 100 students from 1970-71 through 1974-75. Secondly, the districts were chosen as being representative of differences in size and community background. None of the cases are offered as complete studies of the districts involved. While real data and management actions are reported, the cases themselves were written as study materials intended to stimulate discussion and not to present a complete report on the selected district. Fairly extensive data were included in the materials when available because of the authors' conviction that planning for declining enrollment must be data based. While there is much similarity in the nature of problems among the five districts, important differences do exist.

The Bureau of Field Studies and Surveys and the State Planning Agency wish to thank officials in the local districts and the Minnesota Department of Education who generously gave of their time and talent in providing information for the case study materials.

EXECUTIVE SUMMARY

School District C is located in a town of about 5,300 people in a rich agricultural area of the state. Enrollment decline is recognized as a problem, but poses no threat to the existence of the District. K-12 enrollment was at a recent high of 2,393 students in 1967-68. By 1975-76 K-12 enrollment had declined to 1,767, a drop of 626 students or 26 percent over the eight-year period.

The District has had to make staff reductions and take other actions to maintain a balanced budget. The actions taken include staff reductions which were covered by attrition, closing of two elementary schools in rural areas, and reorganization of instruction on a K-5-3-4 basis. The new organization for instruction not only provided better building utilization, but it provided better instructional opportunities for sixth grade students.

The District has adopted some components of an Individually Guided Education (IGE) program at the elementary level. At the senior high level, a trimester program has been adopted which makes a large number of electives available. Each elective is not offered every year; only when enough students have signed up to make the course feasible to offer. This approach appears to reduce the rigidity and wall-building that sometimes occur when staff feel it necessary to preserve the status quo for reasons of job security.

The future of District C will be determined by how well it can adapt to change. The changes, in all probability, will be associated with continued enrollment decline in some grade levels. The District can expect further staff reduction, reduced or less frequent course offerings, and

increased unit costs. While the actions taken thus far have not been easy or popular, District officials believe the current policies are adequate to accommodate decline with minimal program impact for the foreseeable future.

CASE STUDY NO. 3

The School District

School District C serves a community in a rich agricultural area of the state and is located in a town of 5,300 people. The student enrollment has declined each year since 1968-69 at a fluctuating rate with declines ranging from 142 students in 1974-75 to 32 students in 1975-76. The beginning-of-year enrollment in 1975-76 was 1,767 students, a decrease of 626 students or 26.2 percent during the period from 1968 to the present

The School District operates three buildings; two elementary schools and one middle school-senior high combination which also houses District offices. The District's instructional program is organized on a K-5-3-4 basis. School District C was one of the first districts in the state to institute Individually Guided Education (IGE).

The District participates in a number of cooperative educational programs. A school-community library opened in the fall of 1975. Community education and recreation services are provided under a joint agreement with the city. Special education including educable mentally retarded (EMR) and trainable mentally retarded (TMR) programs are provided under a joint-powers arrangement with three neighboring districts. A regional cooperative provides a wide range of services to the District including a psychologist, SLBP services, a speech therapist and cooperative purchasing. The District has a certificated staff of 103 persons and a non-certificated staff of 53 persons.

District C would be considered a high expenditure district for state aid purposes. Its average expenditure per pupil unit in average daily attendance (ADA) in 1970-71 was $690,[1] just slightly over the

[1] Source: Accounting Memo No. 1, State Department of Education.

adjusted state mean of $663. Slightly over half of its assessed valuation comes from agricultural property. The total assessed valuation for the District has been increasing largely due to the increased value of agricultural property. The District operates an Area Vocational Technical Institute (AVT) which is not discussed in the case materials. A School Lay Committee has been established to facilitate communications between the schools and community.

The Community

The focal point of the school community is the town of approximately 5,300 people which is also the county seat. The town presents an image of being a typical, full-service agricultural community. The economy is dominated by businesses which support or stem from agriculture. Diversified industries include boat building and clothing manufacture. It is a non-union town with none of the manufacturing workers being unionized. The economy appears to still be affected by the bankruptcy of an expanding, diversified company in 1969-70. The bankrupt company had purchased local businesses and caused others to close down. The community adjustment has included recruitment of new businesses and a new optimistic outlook toward the future.

In the area of people services, the town has a new hospital. Skilled care unit, intermediate care unit, home health care and "Meals on Wheels" services are available. A 12-story apartment structure for low-income elderly persons is located in the downtown area. Many retired farmers live in the town.

Elementary Program

The organization of the elementary instructional program is based on the modified self-contained classroom for grades K-5. Teachers are

organized into teams and have unit leaders. Teacher workshops are used to disseminate new subject matter and techniques. Metric workshops are now being implemented. The School District uses IGE materials. Music is provided by special teachers. Two hundred Title I students are given assistance by three Title I aides.

The following subjects are taught in the elementary grades:

Reading	Remedial Reading Title I
Spelling	Penmanship
Language	Linguistics Program
Math-Arithmetic	Social Studies
Health and Safety	Science
Art	Physical Education
General Music	Band 4th grade, 5th grade
Choral Groups 5th grade	

Middle School Program

The middle school program was established in 1974-75 as part of the response to declining enrollment. The sixth grade continues to use a modified self-contained classroom as a base, but also participates in departmentalized instruction in home economics, industrial arts and physical education. Grades 7 and 8 have a basic required curriculum taught in a departmental organization. The following subjects are taught in the middle school grades:

Grade 6	Grade 7	Grade 8
Art	English	English
Home Economics	Home Economics	Home Economics
Industrial Arts	Industrial Arts	Industrial Arts
Language Arts	Mathematics	Mathematics
Mathematics	Physical Education	Physical Education
Music	Science	Science
Physical Education	Social Studies	Social Studies
Science		
Social Studies		

Secondary Program

The secondary instructional program for grades 9-12 is on a 12-week

trimester basis allowing a large number of elective course offerings and class sizes of 12-15 students. The curriculum is incorporating more vocational education. All courses are not offered every year; only when a sufficient number of students elect the course.

At the 9th grade level, the following courses are offered:

Required:

Department/Course	Trimest	Credits
Language Arts		
Oral Communications	1	
Written Skills	1	
Literature A or B	1	
Physical Education	6	
Science		
IPS ABC	3	
Natural World ABC	3	
Social Studies		
American Political Process & Law	1	
Geography of the Cities	1	
Cultural Geography	1	
Health	36 hours	

Optional:

Agriculture		
Exploring Ag and Nat. Resources A, B, C, D	4	
Home Economics		
Foods and Nutrition	1	
Clothing Construction	1	
Grooming, Decorating, etc.	1	
Independent Study	1	
Music		
Senior Band A, B, C	3	
Elementary Spanish IA, IB, IC	3	
Mathematics		
General Mathematics A, B, C	3	
Pre-Algebra A, B, C	3	
Algebra A, B, C,	3	
Comprehensive Algebra A, B, C,	3	
Shop		
Introduction to Wood Shop	1	
Machine Woodworking 1A, 1B	2	

High School graduation requires completion of 50 credits in grades 10, 11 and 12 including the following requirements:

Successful completion of Grade 9

Grade 10
- a minumum of one language arts course per trimester
- a minimum of one social studies course per trimester
- a mimimum of one physical education course per trimester
- a minimum of one biology course per trimester

Grade 11 and Grade 12
- a minimum of one communication course per trimester
- a minimum of one social studies course per trimester

The courses offered at the High School are listed on the following page.

Co-Curricular Activities

Co-curricular activities include a variety of athletic and non-athletic activities. Athletic opportunities for boys include baseball, basketball, B-squad basketball, 9th grade basketball, 7th-8th grade basketball, cross-country, football, B-football, 9th grade football, 7th-8th grade football, golf, gymnastics, tennis, track, 7th-8th grade track, wrestling and junior high wrestling. Gymnastics, track, volleyball, basketball, tennis and golf are provided for female students. The non-athletic co-curricular activities are debate, declamation, drill team, newspaper, play (1 act), yearbook, play (3 acts), speech and cheerleading.

Supporting Services

A North Central Accreditation report stated the inadequacies of School District C's library. A first bond issue to build a school library failed, but the second bond issue, a joint city-school bond issue, passed. The school and the city have combined services in this new library which connects to the high school and has a street entrance for the public. The School District administers the library

Department/Course	Trimester Credits	Grade
Agriculture		
Exploring Ag. & Nat. Resources A,B,C,D	4	10
Animal Science A,B	2	10,11
Crop Production	1	10,11,12
Production Ag A,B,C	3	11,12
Ag Mechanics I-VIII	8	10,11,12
Farm Management A,B,C	3	12
Ag Occupations A,B,C	3	10,11,12
Ag Occupations O-T-J,A,B,C	3	12
Ag Leadership A,B,C	3	11,12
Art		
Art A,B,C	3	11,12
Business Education		
Accounting A,B,C	3	11,12
Machines A,B,C	3	11,12
General Business	3	10,11,12
Basic Bookkeeping A,B,C	3	11,12
Marketing I A,B,C	3	11
Occupations Relations Class A,B,C	3	12
Work Experience A,B,C	3	12
Shorthand I A,B,C	3	11,12
Shorthand II A,B,C	3	12
Office Practice I,II,III	3	11,12
Typewriting A,B,C	3	10,11,12
Advanced Typing I	1	11,12
Business Mathematics I,II,III	3	11,12
Personal Law I,II	2	11,12
Language Arts		
Language	1	10,11,12
Practical English	1	10,11,12
Basic Composition	1	10,11,12
Creative Writing	1	10,11,12
Advanced Composition	1	10,11,12
Public Speaking	1	10,11,12
Oral Interpretation & Declam	1	10,11,12
Play Production	1	10,11,12
Literature Appreciation	1	10,11,12
Poetry	1	10,11,12
Short Stories	1	10,11,12
Nonfiction	1	10,11,12
Western U.S. Literature	1	10,11,12
American Humor	1	10,11,12
Shakespeare	1	10,11,12
World Novel	1	10,11,12
Development of Western Drama	1	10,11,12
New World Issues	1	10,11,12
Mass Media	1	10,11,12
Debate	1	10,11,12
TV Production	1	10,11,12
Journalism	1	10,11,12
Yearbook	1	10,11,12
Elementary Spanish IA,B,C	3	10,11
Secondary Spanish IIA,B,C	3	10,11,12
Advanced Spanish IIIA,B,C	3	10,11,12
Home Economics		
Foods for the Family	1	10,11,12
Experience in Culinary Arts	1	11,12
Beginning Clothing	1	10,11,12
Intermediate Clothing	1	10,11,12
Advanced Clothing	1	10,11,12
Creative Stitchery	1	11,12
The Child in the Family	1	11,12
The Home	1	10,11,12
Crafts in the Home	1	10,11,12
Cooking with Natural Foods	1	11,12

Department/Course	Trimester Credits	Grade
Mathematics		
Pre-Algebra A,B,C	3	10,11,12
Algebra A,B,C	3	10,11,12
Geometry A,B,C	3	10,11,12
Intermediate Algebra A,B,C	3	11,12
Advanced Algebra A,B,C	3	11,12
Trigonometry	1	12
Vector Analysis & Ana Geo	1	12
Real Analysis	1	12
Polynomial Analysis	1	12
Music		
Senior High Chorus A,B,C	3	10,11,12
Senior High Band A,B,C	3	10,11,12
Physical Education & Health		
Girls' Physical Education A,B,C	3	10
Boys' Physical Education A,B,C	3	10
Health	1	10
P.E. for Girls, F,W,S	3	11,12
P.E. for Boys, F,W,S	3	11,12
Leadership Training Project	3	12
Science		
Modern Biology A,B,C	3	10,11,12
BSCS Biology A,B,C	3	10,11,12
Ecology	1	11,12
Microbiology	1	11,12
Genetics	1	11,12
Plant & Animal Development	1	11,12
Human Anatomy and Kines.	1	11,12
Physics A,B,C	3	10,11,12
Basic Chemsitry A,B,C	3	10,11,12
Chemistry A,B,C	3	10,11,12
Probing the Natural World	1	10,11,12
Shop		
Carpentry	1	11,12
Drawing, Mechnical	1	11,12
Cabinet Making	1	10,11,12
Architectural Drawing A,B	2	11,12
General Shop	1	12
General Metals, A,B,C	3	10,11,12
Advanced Metals	1	11,12
Machine Shop Practices	1	11,12
Power Mechanics	1	11,12
Social Studies		
American West	1	10,11
Colonial Development to the Jacksonian Era	1	10,11
20th Century	1	10,11
The Civil War to Progressive Era		10,11
Driver Training	1	10,11
Family Relations	1	11,12
Crime & Delinquency	1	11,12
Ind. Study in Social Studies	1	11,12
Anthropology	1	11,12
Asian Studies	1	11,12
Rap on Prejudice	1	11,12
Hammer and Sickle	1	11,12
Futuristics	1	11,12
Economics: American Style	1	11,12
Death and Dying	1	11,12
Psychology A,B,C	3	11,12
Humanities	1	11,12
Rise of Labor	1	11,12

with the city contributing an estimated $15,000 annually. The library presently contains 25,000 hard-cover books and serves an average of 50 students per hour. The decline in the School District's budget will, according to a school staff member, have no negative effect on the library services. The public has access to the audio-visual services and equipment which are located in the library center.

Bus transportation is provided for 825 students. There are 16 bus routes with the School District owning one of the 16 buses.

Each building provides food services to the students. Approximately 1,050 lunches are served per day in a School District operated lunch program.

Two high school counselors and one middle school counselor meet each of the 1,200 students at least three times a year A part-time psychologist, a social worker and extensive use of referral agencies complete the pupil personnel services for School District C. The school's achievement testing program includes the Metropolitan for grades K-2 the Iowa Test of Basic Skills for grades 3-8, the Lorge-Thorndike for 8th graders and the Differential Aptitude Tests for students in the 9th grade.

Enrollment Trends

Table 1 presents the history of beginning-of-year enrollments for District C for the years 1965-66 through 1975-76.[2] The overall picture presented in this table is one of stable enrollment during the three years 1965-66 through 1967-68, then an overall decline, most consistently experienced in the elementary and junior high grades.

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[2]Enrollment history is reported in the K-6-3-3 format, even though the District moved to a K-5-3-4 organization in 1974-75. This format makes direct year-to-year comparisons of grade groupings easier.

Table 1

BEGINNING-OF-YEAR ENROLLMENT HISTORY FOR SCHOOL DISTRICT C, 1965-66 THROUGH 1975-76

	K	1	2	3	4	5	6	Total 1-6	7	8	9	Total 7-9	10	11	12	Total 10-12	Total 1-12	Total K-12	Change
1965-66	208	186	188	162	198	184	185	1,103	172	197	202	571	178	167	155	500	2,174	2,382	--
1966-67	203	198	174	178	161	192	181	1,084	184	177	198	559	205	173	159	537	2,180	2,383	+ 1
1967-68	205	220	189	172	180	158	188	1,107	165	190	168	523	196	193	169	558	2,188	2,393	+ 10
1968-69	182	187	204	177	165	179	158	1,070	184	169	188	541	172	191	187	550	2,161	2,343	- 50
1969-70	162	187	174	196	177	166	178	1,078	155	184	167	506	175	173	181	529	2,113	2,275	- 68
1970-71	139	159	185	163	194	173	168	1,042	174	147	181	502	164	185	162	511	2,055	2,194	- 81
1971-72	147	150	137	172	159	181	188	967	162	172	151	485	179	160	179	518	1,970	2,117	-124
1972-73	113	135	140	135	169	161	183	923	167	160	161	488	149	168	152	469	1,880	1,993	-124
1973-74	120	104	133	140	132	161	157	827	186	172	157	515	169	145	165	479	1,821	1,941	- 52
1974-75	114	116	94	124	134	129	156	753	154	175	168	497	144	160	131	435	1,685	1,799	-142
1975-76	112	116	102	100	126	137	124	705	158	153	179	490	164	141	155	460	1,655	1,767	- 32

Special education students averaged throughout grade levels served.

Sub-totals are kept uniform in the K-6-3-3 format to allow enrollment comparison, even though the K-5-3-4 organization was adopted in 1974-75.

Kindergarten enrollment at the beginning of the period was at a high of 208 students. Except for 1971-72 and 1973-74, when minor increases were reported, each successive year have seen fewer kindergarten students enrolled. A low of 112 students were enrollment in 1975-76, 96 fewer than was reported 10 years earlier.

In elementary grades 1-6, a high enrollment of 1,107 students was recorded in 1967-68. Each year since then, except for 1969-70, elementary enrollment has dropped, to a low of 705 students in 1975-76. The drop in numbers of students in grades 1-6 from 1967-68 to 1975-76 was 402 or almost one-third.

In junior high grades, the high enrollment was 571 students in 1965-66, the low 490 students in 1975-76, the last year of the history period. This change was a decrease of 81 students or 14 percent. The decrease during that time was continual except for 1968-69, 1971-72 and 1973-74 when increases over the previous year occurred.

The highest senior high enrollment for the period was 558 students in 1967-68; the lowest 435 students in 1974-75. An increase to 460 students was reported for the present year, 1975-76. While the pattern in the senior high has been somewhat more erratic than that of other grade levels, the general trend over the 11 years reported is downward, with no evidence of a reversal of this trend in the near future.

The highest K-12 total enrollment of 2,393 occurred in 1967-68. Each following year saw a decrease of 32 to 142 students in District C to a low of 1,767 students in 1975-76; a total decrease of 626 from the 1967-68 high. This represented a drop of 26 percent in eight years.

Table 2 reports School District C census data for the years 1965 through 1975. Of most significance in these data are the numbers of students in the pre-school years, as these can provide assistance in

Table 2

CENSUS HISTORY FOR SCHOOL DISTRICT C, 1965 THROUGH 1975

School Census Year	Ages																					Grand Total 0-17
	0	1	2	3	4	5	Total 0-5	6	7	8	9	10	11	Total 6-11	12	13	14	15	(Att) 16	(Not Att) 16	17	Total 12-17
1965	77	131	158	180	181	200	927	203	185	183	202	185	182	1,140	185	206	211	192	9	163	168	1,134	3,201
1966	119	149	151	165	200	212	996	195	194	181	180	198	185	1,133	187	213	194	203	6	189	158	1,150	3,279
1967	91	141	171	157	189	209	958	218	207	200	191	178	202	1,196	191	189	209	192	12	184	194	1,171	3,325
1968	73	91	133	143	138	169	747	187	190	181	188	192	162	1,100	191	179	183	205	1	184	196	1,138	2,985
1969	95	146	125	157	171	162	856	208	184	212	205	193	191	1,193	176	208	196	197	0	218	187	1,182	3,231
1970	55	94	117	109	129	154	658	141	183	171	182	190	163	1,030	178	156	190	183	0	183	188	1,078	2,766
1971	47	107	107	128	105	133	627	155	130	174	175	180	181	995	174	174	162	190	0	173	183	1,056	2,678
1972	109	93	126	99	119	99	645	130	147	132	173	169	189	940	190	172	169	164	0	183	175	1,053	2,638
1973	80	113	101	116	93	118	621	96	135	141	134	167	165	838	189	182	170	173	0	167	180	1,061	2,520
1974	87	88	116	104	126	100	621	119	87	132	147	136	168	789	162	182	191	167	0	182	153	1,037	2,447
1975	75	98	92	117	106	123	611	101	113	93	136	146	132	721	166	165	186	184	0	167	175	1,043	2,375

projecting future elementary school enrollments. The greatest number of pre-school children was counted in 1966; 996 0-5-year-olds. The lowest number, 611, was recorded in 1975, 385 fewer than the high nine years earlier. The intervening years saw substantial fluctuations in numbers of pre-school children, but the trend was generally downward through the period.

Table 3 presents a forecast of school enrollments in District C for the five-year period 1976-77 through 1980-81. These enrollments were forecast by the case study team using a cohort survival method which produced the best prediction of current year enrollments. School District personnel do not think enrollment will decline quite as rapidly as the forecast indicates.

Table 3

PROJECTED ENROLLMENTS FOR SCHOOL DISTRICT C, 1976-77 THROUGH 1980-81

Year	K	1	2	3	4	5	Total 1-5	6	7	8	Total 6-8	9	10	11	12	Total 9-12	Total 1-12	Total K-12	Change
1976-77	112	110	103	102	99	126	540	132	124	153	409	153	169	158	132	612	1,561	1,673	- 94
1977-78	130	111	98	103	100	99	511	122	132	120	374	153	145	163	148	609	1,494	1,624	-.49
1978-79	104	129	99	98	102	100	628	95	121	127	343	120	145	139	153	557	1,428	1,532	- 92
1979-80	115	103	115	99	97	102	516	97	95	117	309	127	113	139	131	510	1,335	1,450	- 83
1980-81	98	114	92	115	97	97	515	98	97	92	287	117	121	109	130	477	1,279	1,377	- 73

Because the district has moved from a K-6-3-3 organization to a K-5-3-4 organization, the sub-totals for elementary, middle school and senior high projections are reported in the latter format. This format will provide more useful figures for the determination of facility adequacy for the current program.

Kindergarten enrollment through the five-year forecast period is expected to fluctuate with the high for the period projected to be 130 in 1977-78; the low 98 in 1980-81.

Elementary enrollments are also expected to fluctuate, but with a more consistent pattern of decline being apparent. A high of 540 students is forecast for 1976-77 and a low of 511 students in the following year. The increase to 528 in 1978-79 is the only year of increase during the period.

In the middle school, the projection is for steady annual decline from the high of 409 students in 1976-77 to a low of 289 by 1980-81.

A similar situation is projected for the senior high school with a forecast high enrollment of 612 students in 1976-77 declining annually to a low of 477 students five years later.

The total K-12 enrollment is projected to decrease each year of the forecast from 49 to 94 students. By 1980-81, the forecast is for 390 fewer students than in 1975-76, a 22 percent decrease.

It should be noted that in 1975-76, about 77 children residing in District C attended parochial schools. This number has held steady over the several years, and School District officials are confident that it will remain so or at least stay in approximately the same ratio to public school enrollment. Should a change in these enrollment ratios occur, caused by elementary grade drops, or conversely increased services by the parochial schools, the School District enrollment would be affected. This would be the case particularly if enrollments continue to drop beyond those projected for the five years reported here.

Plant Facilities

School District C has made several changes in school plant utilization

in response to declining enrollment. Elementary School No. 1, located in a rural part of the District about 10 miles from town, was closed at the end of the 1971-72 school year. Elementary School No. 2, also located in a rural part of the District about 15 miles from town, was closed at the end of the 1973-74 school year. Elementary School No. 3, located in the same building as the secondary programs was also closed at the end of the 1973-74 school year. While some elementary classes continue to be housed there, it is administered as an extension of another elementary school program. In 1974-75, the change from K-6-3-3 to K-5-3-4 organization was made. The change improved building utilization and program opportunity.

The instructional program is currently housed in three buildings, two elementary schools and a middle school-senior high facility. One kindergarten, two elementary grade classes and a special education class are housed in the secondary building. All of the presently used buildings are located within the city limits.

An athletic complex with football, baseball and track facilities used for outdoor physical education teaching stations and extra-curricular sports is located approximately two miles from the high school. Gymnasium facilities are rented in a now closed parochial school and an armory for extra-curricular activities. Elementary gyms are also used for secondary school sports.

A summary of each of the school buildings in the District is presented below.

Elementary School No. 4

Location: Residential area of town

Date of Construction: 1956

Type of Construction: Block and brick, one story

Site: Approximately 6 acres

Capacity and Utilization:
Present enrollment: 263
Highest enrollment served: 300
Estimated maximum capacity:[2] 342

Present Utilization of Building:

Grade	Enrollment	Grade	Enrollment
1	22	4	26
1	21	4	26
2	21	4	24
2	20	5	28
3	24	5	28
3	24		

Facilities in Building:

12 General classrooms — Library
Cafeteria/Gym — Principal's & nurse's offices

Comments: Eleven of the 12 classrooms are used as semi-self-contained classrooms. An Individually Guided Education (Wisconsin Design) program is in use which necessitates inter-class grouping of children as their learning needs dictate. One classroom is used for remedial reading and tutoring.

The building is in good structural condition, well maintained and has a pleasant atmosphere. Its most notable deficiency is the lack of sufficient storage space for audio-visual equipment and lack of space for working with small groups of students or individuals. This need is more apparent because of the demands of the IGE program. Though class sizes are generally small, the building has the appearance of being overcrowded because of its lack of flexible space.

Elementary School No. 5

Date of Construction: 1963

Type of Construction: Block and brick, one story

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[2]Calculation of estimated maximum capacity:
12 General classrooms x 30 students x 95% utilization = 342
0 Kindergarten classrooms x 25 students x 2 sections = 0
Total 342

Site: 6 acres

Capacity and Utilization:

Present enrollment: 343
Highest enrollment served: 400 (estimated)
Estimated maximum capacity:[3]

K =	50
Grades 1-6 =	370
Total	420

Present Utilization of Building:

Grade	Enrollment	Grade	Enrollment
K	24	3	25
K	28	4	25
Transition	12	4	24
1	27	5	28
1	24	5	29
2	21	5	28
2	22	EMR - counted in regular class enrollments	
3	26		

Facilities in Building:

13 General classrooms	Principal's & nurse's offices
1 Kindergarten room	2 Small tutoring rooms
Cafeteria/gym	Library

Comments: The instructional program at Elementary School No. 5, like that at School No. 4, is largely based on the IGE approach. The need for specialized spaces for small group work and individual work in this building makes it appear overcrowded. All classrooms are currently being used. In addition to K-5 programs, the transition rooms services and special education for EMR children from across the District are located here. EMR children are "mainstreamed" into the K-5 programs and appear on regular class lists. The transition room functions as an identifiable class of students between kindergarten and grade 1. The building is modern, well maintained, and pleasant. It is lacking in adequate storage space and spaces for special services personnel in speech therapy, psychological testing and tutoring.

Middle School-Senior High School

Location: Centrally located in city

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[3]Computation of estimated maximum capacity:

13 Classrooms x 30 pupils x .95 utilization	= 370
1 Kindergarten room x 25 pupils x 2 sections	= 50
Total	420

Date of Construction: 1918

Dates of Additions: 1939, 1956, 1960 and 1973

Type of Construction: Brick with considerable wood in interior, three stories.

Site: Building itself completely uses plot on which it is built. Students must be bussed to remote athletic complex for outdoor physical education and extra-curricular activities.

Capacity and Utilization:

Current enrollment: Middle School 435
Senior high 639
Elementary 98

Highest secondary enrollment served in past ten years: 1,096

Estimated maximum capacity:[4] Middle School = 717
High School = 635
Total 1,352

Facilities in Building:

School District offices
30 general classrooms (shared)
Special classrooms

Middle School and High School administrative & counseling offices

Middle School only

Science rooms (3)
Industrial arts shop
Study hall

Shared

Home economics suite (3 rooms)
Art rooms (2)
Chorus room
Band room
Gym
Lunchroom
Auditorium
Library (also serves as community library)

Senior High only

Science labs (2)
Business lab
Typing lab
Distributive education lab
Language lab
Study hall
Vocational agriculture shop
Metal/machine shop
Wood/drawing shop

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[4]Computation of estimated maximum capacity:

Middle School
19 General classrooms x 30 students x 90% utilization = 513
10 Special classrooms x 24 students x 85% utilization = 204
Total 717

High School
15 General classrooms x 30 students x 85% utilization = 383
14 Special classrooms x 24 students x 75% utilization = 252
635

Comments: The building is in good repair and is structurally sound. While virtually all of the instructional spaces in the building are utilized, many of them stand empty for some hours during the day, accounting for the discrepancy between actual utilization and the estimated maximum program capacity.

Lack of space for physical education, both indoors and out, industrial arts and art are the most apparent shortcomings of the building to adequately house the program. The necessity of sharing specialized teaching stations between the Middle School and Senior High programs has necessitated "locking together" the schedules of the two programs. The administrators of both programs indicated this practice is not to the advantage of either program.

While the elementary classrooms are not needed for general Middle School and High School classroom space, some of them could be readily convertible to industrial arts use for the Middle School program and could be well used for that purpose. A unique feature of the facility is the community-school library (1973 addition) which houses the collections for the middle school, senior high and elementary programs as well as a wide range of materials of broad adult interest.

Staffing

Staffing considerations are primary variables. Four types of information about District C's staff are of interest; 1) size of the certificated staff, 2) distribution of staff on the salary schedule, 3) implications of staffing adequacy for programs in terms of class size, and 4) size of the non-certificated staff

The size of the certificated staff is indicated in the following list:

Position/Classification	Number (FTE)
Superintendent	1
Assistant Superintendent/ Business Manager	1
A.V. Director	1
Elementary Principals	2
Secondary-Middle School Principals	2.5
Elementary Teachers	35
Secondary Teachers	52.7

Position/Classification	Number (FTE)
Librarians	3
Nurses	2
Counselors	3
Speech Therapist	1
Total	103.2

The data in Table 4 constitute a composite of the present salary schedule and the numbers of certificated personnel by experience and training for 1974-75. Contract negotiations were not completed at the time of data collection. Table 4 indicates that almost half of the certificated staff are at the B.A. level of training and that one-half of the certificated staff are at the maximum salary step. The total salary cost in 1974-75 was $1,196,480.

Another way to examine the relationship of staff and educational program is in terms of pupil-teacher ratio and class size. The student enrollment for K-5 is 705, with 35 certificated staff giving an elementary pupil to teacher ratio of 20:1. The 1,088 secondary (6-12) students and 52.7 secondary teachers give a secondary pupil to teacher ratio of approximately 21:1.

The average elementary class size is 26 students in kindergarten and 25 students in grades 1-6. The distribution of class sizes in the middle school by subject area is presented in Table 5. The largest number of classes, 33 or 35 percent, fall in the 21 to 25 student interval. Only physical education and music classes exceed 30 students. A similar distribution of class sizes by subject matter for the senior high school is presented in Table 6. The data in Table 6 indicate that while there are a number of classes with 15 or fewer students, 63 percent of the classes have 21 or more students. These data indicate that the District is able to offer a relatively large number of classes without a prohibitively low average class size.

Table 4

SALARIES AND NUMBERS OF CERTIFICATED PERSONNEL BY EXPERIENCE AND LEVELS OF TRAINING IN SCHOOL DISTRICT C, 1974

	Level of Training and Number of Staff by Cell															
Experience	B.A.	No. of Staff	B.A. +15	No. of Staff	B.A. +30	No. of Staff	B.A. +45	No. of Staff	M.A.	No. of Staff	M.A.+15	No. of Staff	M.A.+30	No. of Staff	M.A.+45	No. of Staff
0	$ 8,000	1	$ 8,200		$ 8,400		$ 8,600		$ 8,800		$ 9,000		$ 9,200		$ 9,400	
1	8,200	6	8,490		8,700		8,910		9,120		9,330		9,540		9,750	
2	8,570	1	8,790	1	9,010		9,230		9,450		9,670		9,890		10,110	
3	8,870	3	9,100		9,330		9,560		9,790		10,020		10,250		10,480	
4	9,180	8	9,420	1	9,660	1	9,900		10,140	1	10,380				10,620	
5	9,500	4	9,750	1	10,000		10,250		10,500		10,750				11,250	
6	9,830	5.5	10,090		10,350	2	10,610		10,870	1	11,130		11,390		11,650	
7	10,170	2.5	10,440		10,710		10,980		11,250		11,520		11,790		12,060	
8	10,520	2	10,800		11,080		11,360		11,640		11,920		12,200		12,480	
9	10,880		11,170		11,460		11,750		12,040	1	12,330		12,620	1	12,910	
10	11,250	2	11,550		11,850		12,150		12,450	1	12,750		13,050	1	13,350	
11	11,630	1	11,940		12,250		12,560		12,870	1	13,180	1	13,490		13,800	
12	12,100	14	12,340		12,660		12,980	1	13,300	3	13,620		13,940		14,260	
13			12,750	5	13,080	1	13,410	5	13,740	13	14,070	1	14,400	7	14,730	1
TOTAL		51		9		4		6		21		2		9		1

Note: Two teachers have two years of training.

Table 5

MIDDLE SCHOOL (GRADES 6-8) CLASS SIZE, SCHOOL DISTRICT C

Subject	Class Size 1-15	16-20	21-25	26-30	31-35	Over 35	Total
Grades 7 and 8							
Agriculture	1						1
Art		4					4
English			5	7			12
Home economics	1	2					4
Industrial arts		3	1				4
Mathematics		2	8	3			13
Music		7				1	8
Physical education				1		9	10
Reading	1	2	2				5
Science		1	8	4			13
Social Studies			5	7			12
Grade 6							
Self-contained room			2	3			5
Home economics			1				1
Industrial arts			1				1
Physical education					1	1	2
TOTAL	3	22	33	25	1	11	95
PERCENT	3	23	25	26	1	12	100
CUMULATIVE PERCENTAGE	3	26	61	87	88	100	

Table 6

SENIOR HIGH SCHOOL (GRADES 9-12) CLASS SIZE, SCHOOL DISTRICT C

Subject	Class Size 0-15	16-20	21-25	26-30	31-35	Over 35	Total
Agriculture	5	1	2				8
Art		1	1				2
Business education	3	5	6	6	1		21
Drivers' Training				2			2
English	1	9	12	8			30
Foreign Language	2		1				3
Home economics	1	1	2	1			5
Industrial arts	4	10	2	1			17
Mathematics	3	3	7	2			15
Music		1	1			2	4
Physical education	1		4	4	2	1	12
Science	4	6	8	4			22
Social Studies	1		12	13			26
TOTAL	25	37	58	41	3	3	167
PERCENT	15	22	34	25	2	2	100
CUMULATIVE PERCENTAGE	15	37	71	96	100		

The non-certificated staff is distributed as follows:

Classification	Number
Custodial	12
Food Services	12
Secretarial	8
Instructional Aides	15
Total	47

evenues and Expenditures

Declining enrollment is a significant variable in school fiscal nagement. Under the Foundation Aid Formula, revenue receipts from ie state level vary directly with the district's number of pupil units; the same time, pupil unit costs tend to rise because districts ways respond immediately to enrollment drops and because of incr aff maturity as personnel are released in inverse order of seniority.

The data in Table 7 indicate the amount of general fund revenue by vel of source for District C from 1970-71 through 1974-75.

Table 7

GENERAL FUND REVENUE RECEIPTS IN SCHOOL DISTRICT C BY SOURCE LEVEL, 1970-71 THROUGH 19[illegible]-75

vel/Source	Year 1970-71	1971-72	1972-73	1973-74	1974-75
cal[a]	$1,037,471	$ 521,080	$ 790,826	$ 577,539	$ 874,497
unty	9,678	9,879	10,250	13,243	11,164
ate	351,800	1,090,065	1,328,520	1,348,953	1,425,204
deral	122,396	80,715	77,787	59,779	77,275
her Non-School	2,281				
TAL	$2,523,626	$1,701,739	$2,207,383	$1,983,514	$2,388,140

[a]Amounts do not include sales of materials and abatements.
irce: Annual Reports, State Department of Education.

These data taken from annual financial reports indicate a tendency for revenue from local tax sources to be relatively constant for the last two years and showing a moderate increase from state level sources (including replacement taxes). The total revenue picture tends to appear stable. These data must be interpreted and compared with some caution because of cash accounting procedures employed in Minnesota school districts.

Table 8 presents a summary of selected General Fund expenditures by function for the 1970-71 through 1974-75 period.

Table 8

GENERAL FUND EXPENDITURES BY FUNCTION BY YEAR FOR SCHOOL DISTRICT C, 1970-71 THROUGH 1974-75

Function	Year 1970-71	1971-72	1972-73	1973-74	1974-75
Administration (100)	$ 66,701	$ 59,436	$ 46,296	$ 53,347	$ 57,405
Instruction (200)	2,214,334	1,479,479	1,444,312	1,477,056	1,570,712
Attend. & Health (300-400)	15,452	19,083	18,419	18,723	19,204
Transportation[a] (500)	116,612	116,689	109,484	123,544	147,209
Operation of Plant (600)	199,611	169,123	168,044	190,211	202,319
Maintenance of Plant (700)	50,993	37,121	37,756	34,936	43,386
Fixed Charges (800)	71,648	61,981	65,760	74,709	77,296
TOTAL	$2,735,351	$1,942,912	$1,890,071	$1,972,526	$2,117,531

[a]Separate fund starting 1973.
Source: Annual Reports, State Department of Education.

These data tend to indicate a very moderate increase in General Fund expenditures from 1971-72 through 1974-75. In other words, District C has declined in enrollment without increases in expenditure of the magnitude incurred in other districts.

The data in Table 9 tend to indicate that enrollment decline has had a greater affect on unit costs.

Table 9

PUPIL UNITS AND UNIT COSTS IN ADJUSTED MAINTENANCE EXPENDITURES IN AVERAGE DAILY MEMBERSHIP FOR SCHOOL DISTRICT C, 1970-71 THROUGH 1974-75

Selected Data (ADM)	Year				
	1970-71[a]	1971-72	1972-73	1973-74	1974-75[b]
Resident Pupil Units	2,448	2,450	2,385	2,225	2,120
State Median	NA	938	953	948	NA
Adj. Maint. Cost PPU[c]	$724	$732	$747	$807	$898
State Median	$636	$681	$722	$780	NA
Foundation Aid PPU	$265	$327	$472	$499	$533
State Median	NA	$345	$468	$506	NA
Bonded Debt PPU	$600	$516	$325	$413	$370
State Median	$710	$693	$701	$713	NA

[a]All 1970-71 reported in ADA and adjusted to ADM with exception that bonded debt PPU and its state median are ADA.

[b]1974-75 data are preliminary data as of January 16, 1976.

[c]Adjusted maintenance cost excludes expenditures for veterans training, community services and receipts from sale of lunches, materials, student activities and refunds as specified by the State Department of Education for a particular year.

Source: Selected Data Reports, State Department of Education.

From 1972-73 through 1974-75, adjusted maintenance cost per pupil unit in average daily membership rose from $747 to an estimated $898.

Responses to Enrollment Decline

School District C has responded to enrollment decline in ways which have had positive implications for the educational program. At the same time that staff has been reduced, instructional program opportunities have been maintained or increased. The decrease in elementary enrollment appears to have had no effect on the IGE program. Enrollment decline led to the K-5-3-4 organization for instruction which made more

specialized instructional opportunities available to sixth grade students. The trimester plan made more electives available to senior high students in spite of the decline.

The District closed two elementary buildings. While the closings were not popular in the communities affected, the closings helped the District keep expenditures responsive to the enrollment decline. In fact the enrollment decline has led to upgrading and better utilization of facilities. Additional actions taken by the School District as a result of decline in number of students include reducing the number of bus routes, increases in class size and moving kindergarten classes from churches into the school buildings.

Nearly all staff reduction has been covered by attrition. In the process, the District has not replaced a curriculum director. No new staff positions have been added since 1970-71 with the exception of a part-time home economics instructor.

Alternatives for the Future

District C faces the future expecting enrollments to continue to decline and expecting to continued present policies in dealing with the problems. Future enrollment decline can be expected to bring further staff reduction, cutback or less frequent course offerings and increased unit costs. While the actions taken have not been easy or popular, the District officials believe that its policies are adequate to accomodate decline for the foreseeable future.

Study Questions

1. How would you characterize District C and the community it serves?
2. How has enrollment decline affected the District's educational program?

3. How would you describe and attempt to explain the census and enrollment trends in the District?

4. What have been the District's policies concerning plant facilities?

5. How would you describe the staff in District C?

6. What effects have enrollment decline has on revenue and expenditure?

7. What planning actions or policies could another district take to prepare for a similar enrollment decline?

8. How small could the enrollment in District C become before present policies would become ineffective in dealing with the problems of decline?

CASE STUDY NUMBER 4

SCHOOL DISTRICT D

A COMPLETE NON-AGRICULTURAL SERVICE CENTER

MANAGING SCHOOL DISTRICTS with DECLINING ENROLLMENT

Prepared for:
Human Resources Planning
Minnesota State Planning Agency
by the
Bureau of Field Studies and Surveys
Department of Educational Administration
College of Education
University of Minnesota

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FOREWORD

These case study materials were prepared to assist school officials and interested citizens in dealing with problems associated with enrollment decline. The case study approach is most useful in dealing with complex problems where several solutions are possible and one "right" answer is not implicit in the data.

The subjects in these case materials are actual districts in Minnesota. The districts were selected because their enrollments had declined at least ten percent or 100 students from 1970-71 through 1974-75. Secondly, the districts were chosen as being representative of differences in size and community background. None of the cases are offered as complete studies of the districts involved. While real data and management actions are reported, the cases themselves were written as study materials intended to stimulate discussion and not to present a complete report on the selected district. Fairly extensive data were included in the materials when available because of the authors' conviction that planning for declining enrollment must be data based. While there is much similarity in the nature of problems among the five districts, important differences do exist.

The Bureau of Field Studies and Surveys and the State Planning Agency wish to thank officials in the local districts and the Minnesota Department of Education who generously gave of their time and talent in providing information for the case study materials.

EXECUTIVE SUMMARY

School District D serves a mining community of over 5,000 people in northern Minnesota. Its K-12 enrollment has dropped from a high of 2,046 students in 1967-68 to 1,442 students in 1975-76; a drop of 604 students or nearly 30 percent over the ten-year period. Much of the decline early in the period was attributed to the decline in mining activity.

Responses to the enrollment decline are marked by a reluctance to plan for and adjust to change. As a result of community pressure for maintaining neighborhood schools, the District continues to operate two elementary buildings below 50 percent of capacity. Early staff reductions were accomplished through attrition and reassignment. The first termination action was taken to court and ended with reinstatement of the teacher. The next year procedures were carefully observed and four teachers were terminated. Administrative positions have been reduced to a point where the capability to plan and respond to change has been minimized.

Over 68 percent of teachers are at the top of the salary schedule. Further cutbacks will result in increased staff maturity and higher unit costs. Planning is done on a budget year basis, sometimes on a biennium basis. The District incurred a deficit of approximately $150,000 in 1974-75. A deficit of $200,000 is expected in 1975-76 with an expenditure budget of $2,550,000. Declining enrollments will bring less state revenue and the local assessed valuation has dropped markedly.

Many classes are small. No new programs are being introduced. The effect of enrollment decline on the traditional program currently offered appears to be minimal. Projected short-range declining secondary enrollments necessitate program cuts.

District D has resisted change brought about by declining enrollments. It has not forecast its future enrollments, revenues and expenditures. Taking change as it comes instead of planning for it has resulted in underutilized buildings, delayed maintenance, small classes, deficit spending and uncertainty about the future. Hope for the future is tied to a reversal in enrollment trends as a result of the construction of a taconite plant about three miles from town. Certainly, the operation of the new plant will provide a boost for the economy, but will the opportunities attract enough new families to the School District to reverse the enrollment trends? Data indicate that in-migration which is now taking place is bringing in children in all age groups but principally in the pre-school and elementary age groups. Even if in-migration continues, District D can expect to anticipate change and plan for adjustments.

CASE STUDY NO. 4

The School District

School District D serves a mining community in northern Minnesota. In 1970-71 the District enrolled 1,761 students in grades K-12, making it a rather large district in a state where the median enrollment was 729 students during that year. The beginning-of-year enrollment in 1975-76 was 1,442 students, a decrease of 319 students or 18 percent during the period. The District operates one senior high, one junior high and three elementary school buildings. The instructional program is organized on a K-6-3-3 basis. Special education including educable mentally retarded (EMR) and trainable mentally retarded (TMR) programs are provided under a joint powers arrangement with two neighboring districts. In 1975-76 the staff consisted of 87 certificated and 45 non-certificated employees. District D was a high expenditure district in 1970 when it spent $854 per pupil unit in ADA compared with a state adjusted average of $663.[1] The District's 1975 total assessed valuation was $16,733,333 and is declining.

The Community

All of the District's plant facilities are located in a small city which is a trade center for approximately 6,000 people. Both the economy of the city and the operations of the school are linked to the mining industry. Depletion of iron ore deposits and changes in mining technology have had profound effects on the school community. There is presently a surge in economic activity primarily due to the construction of a new taconite plant located in the neighboring school district. The new plant is only three and one-half miles from the town. The taconite plant, to be

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[1] Source: Accounting Memo No. 1, State Department of Education.

completed in 1977, is expected to employ 2,000 persons. It is estimated that up to one-third of these employees may reside in the School District community.

The community work force tends to be in the older age groups. About 80 percent of all workers are unionized and early in 1976 the unemployment rate was 6 percent. While the community is essentially a "one-industry-town," there are signs of diversification beyond the usual service industries. Notable among the are clothing manufacture and tourism. Communit growth and activi ere credited with keeping the enrollment decline smaller than sch cials expected in the fall of 1975.

Eleme ary Program

District D's elementary program is based on a self-contained class organization. Instruction is provided by special teachers in music, physical education, special education and spe ch. The following subjects are taught in the elementary grades:

Reading	Remedial Reading Title I
Spelling	Penmanship
Language	Math-Arithmetic
Social Studies	Health and Safety
Science	Art
Physical Education	General Music
Band	Orchestra

Swimming is offered for 5th and 6th graders once a week. The elementary curriculum does not provide for choral music groups or foreign language instruction. Two of the three elementary schools have science centers. Each of the elementary schools has a library. The per pupil expenditure for elementary library materials was $3.54 last year. The three elementary school libraries have a total of 12,693 hard cover books.

Secondary Program

At the junior high level all courses are required, except that 7th and 8th graders may choose one elective from five alternatives and 9th graders may choose two electives from ten alternatives. The curriculum of the first three grades in the secondary schools is summarized below.

Grade 7	Grade 8	Grade 9
Required:	Required:	Required:
Math	Science	English
Science	Math	Algebra/geometry
History	Geography	Physical education
Health	Health	Science
Physical education	Physical education	Civics
English	English	
Home economics	Home economics	
Art	Art	
Music	Music	
Industrial arts	Industrial arts	

Electives: Grade 7 and Grade 8	Electives: Grade 9	
Band	French I	Band
Choir	Spanish I	Choir
Speech	Industrial arts	Orchestra
Orchestra	Home economics	Study
Study	Art	Group counseling
Group counseling	Speech	

At the senior high level, the following courses are required for graduation:

Grade 10	Grade 11	Grade 12
American history	English 11	English 12
English 10	plus five one-credit courses	Social studies 12
Physical education		plus four one-credit courses
plus three one-credit courses		

The elective courses available and the grade levels at which they are offered are shown on the following page. The junior high library contains 7,100 volumes and $4.81 per pupil was spent for library materials last

Department and Course	Credits	Grade
Art		
Introduction to Art	1	10,11,12
Painting and Sculpture	½	11,12
Arts and Crafts	½	11,12
Advance Art	1	12
Business Education		
Accounting	1	11,12
Business Law	½	10,11,12
Consumer Economic Problems	½	10,11,12
Office Practice	1	12
Record Keeping	1	11,12
Shorthand I	1	11,12
Shorthand II	1	12
Typewriting I	½	10,11,12
Typewriting II	1	10,11,12
Foreign Language		
French I	1	10,11,12
French II	1	10,11,12
French III	1	11,12
French IV	1	11,12
Spanish I	1	10,11,12
Spanish II	1	10,11,12
Spanish III	1	11,12
Spanish I	1	11,12
Home Econom		
Family R[illegible]nishing	½	10,11,12
Child D[illegible]ment	½	10,11,12
Housin	½	10,11,12
Consum[illegible]ds	½	10,11,12
Consumer Clothing	½	10,11,12
Consumer Education	½	10,11,12
Bachelor Know-How	½	10,11,12
Advanced Clothing	½	10,11,12
Industrial Arts		
Architectural Drafting	1	11,12
Auto Mechanics	1	12
General Metals I	½	10,11,12
General Metals II	½	10,11,12
Industrial Arts I (Girls)	½	10,11,12
Industrial Arts II (Girls)	½	10,11,12
Machine Shop	1	11,12
Machine Shop (Advanced)	1	12

Department and Course	Credits	Grade
Industrial Arts (continued)		
Mechanical Drawing	1	10,11,12
Welding	½	10,11,12
Woodworking (Advanced)	1	10
Mathematics		
Advanced Albegra & Trigonometry	1	11,12
Consumer Mathematics	1	10,11,12
Geometry (Plane & Solid)	1	10,11,12
Introductory Analysis	1	11,12
Introduction to Calculus	1	12
Music		
Band	1	10,11,12
Choir	1	10,11,12
Orchestra	1	10,11,12
Physical Education		
Physical Education (Boys)	1	11,12
Physical Education (Girls)	1	11,12
Swimming (Boys)	1	11,12
Swimming (Girls)	1	11,12
Science		
Biology (Applied)	1	10,11,12
Biology (BSCS - Green)	1	10,11,12
Chemistry (Chems)	1	11,12
Chemistry (IAC)	1	11,12
Electronics I	1	11,12
Physics	1	11,12
Social Studies		
Current Issues	½	11,12
Minnesota History	½	10,11,12
Modern History	1	11,12
Recent Political Thought	½	11,12
World History	1	11,12
Speech and Drama		
Acting	½	10,11,12
Appreciation (Literature)	½	10,11,12
Dramatic Production	½	10,11,12
Oral Interpretation	½	10,11,12
Speech I	1	10,11,12
Miscellaneous		
Aviation Fundamentals	½	11,12
Basic Flight Systems	½	11,12

year. The senior high library contains 9,997 volumes and $6.02 per pupil was spent for library materials last year.

Co-Curricular Activities

The co-curricular activities available to the students of School District D include a wide variety of athletics and some non-athletic

activities. The non-athletic activities include the junior and senior high school papers, junior and senior high dramatics, one-act plays, declamation, school annual and cheerleading. Athletic opportunities provided for senior high school girls are swimming, track, volleyball and basketball. Boys' athletics are the dominant co-curricular activities. In both football and basketball, there are three teams. Basketball is also provided for 7th and 8th grade boys. Swimming, track, baseball, hockey and cross country fill out the senior high school boys' athletic opportunities. The total salaries for staff leadership for all co-curricular activities was $25,460 in 1975-76.

Supporting Services

Bus transportation is provided for 579 students. Six of the bus routes are by school-owned buses and two of the bus routes are contracted to an outside firm.

A central kitchen located in one of the elementary schools provides food service to each of the other school buildings. As a result of previously losing money when the School District operated the food services, the School District now contracts with an outside firm for the approximately 400 lunches served.

Enrollment Trends

Enrollment fluctuations are not new in School District D. Table 1 presents a summary of end-of-year school enrollments in the District from 1906-07 through 1974-75. In 1926-27 the District had its largest enrollment, 3,615 students. Gradual decline was experienced thereafter through 1947-48 when a low of 1,393 students were enrolled. The trend

Table 1

END-OF-YEAR ENROLLMENTS IN SCHOOL DISTRICT D, 1906-07 THROUGH 1974-75

Year	Enrollment	Year	Enrollment	Year	Enrollment
1906-07	584	1929-30	3,214	1952-53	1,759
1907-08	733	1930-31	3,228	1953-54	1,903
1908-09	871	1931-32	3,176	1954-55	1,906
1909-10	1,081	1932-33	3,156	1955-56	1,953
1910-11	1,236	1933-34	3,010	1956-57	2,091
1911-12	1,345	1934-35	2,741	1957-58	2,204
1912-13	1,550	1935-36	2,693	1958-59	2,219
1913-14	1,731	1936-37	2,522	1959-60	2,214
1914-15	1,884	1937-38	2,317	1960-61	2,209
1915-16	2,100	1938-39	2,187	1961-62	2,151
1916-17	2,313	1939-40	1,982	1962-63	2,114
1917-18	2,370	1940-41	1,852	1963-64	2,049
1918-19	2,696	1941-42	1,717	1964-65	2,005
1919-20	2,890	1942-43	1,626	1965-66	2,046
1920-21	3,062	1943-44	1,490	1966-67	--
1921-22	3,235	1944-45	1,440	1967-68	1,943
1922-23	3,367	1945-46	1,378	1968-69	1,860
1923-24	3,581	1946-47	1,355	1969-70	1,772
1924-25	3,461	1947-48	1,393	1970-71	1,676
1925-26	3,615	1948-49	1,451	1971-72	1,633
1926-27	3,615	1949-50	1,480	1972-73	1,579
1927-28	3,159	1950-51	1,545	1973-74	1,481
1928-29	3,009	1951-52	1,650	1974-75	1,442

then reversed through 1959-60 when 2,214 students were served. The present downward trend has persisted since that time.

Table 2 reports an 11 year history of beginning-of-year enrollments in the District during the period 1965-66 through 1975-76. It is immediately apparent that the District has experienced generally declining enrollment throughout the period.

Kindergarten enrollment reached a high of 144 in 1966-67 and a low of 83 in 1972-73; in each of the three years since then, however, enrollment in kindergarten has been over that mark with 102 being enrolled in 1975-76, a number not exceeded since 1968-69. Elementary

Table 2

BEGINNING-OF-YEAR ENROLLMENT HISTORY FOR SCHOOL DISTRICT D, 1965-66 THROUGH 1975-76

	K	1	2	3	4	5	6	TOTAL 1-6	7	8	9	TOTAL 7-9	10	11	12	TOTAL 10-12	TOTAL 1-12	TOTAL K-12	CHANGE
1965-66	120	141	144	158	151	143	160	897	172	182	159	513	150	181	141	472	1,882	2,002	--
1966-67	144	123	138	150	161	163	150	885	169	175	187	531	161	148	177	486	1,902	2,046	- 44
1967-68	126	152	130	140	152	165	162	901	150	170	178	498	188	158	151	497	1,896	2,022	- 24
1968-69	141	118	137	122	134	151	160	822	162	149	161	472	172	182	154	508	1,802	1,943	- 79
1969-70	97	137	109	137	116	134	145	778	159	159	148	466	165	177	177	519	1,763	1,860	- 83
1970-71	87	101	133	108	138	115	129	724	148	162	154	464	151	158	177	486	1,674	1,761	- 99
1971-72	92	87	100	135	106	138	111	677	125	145	160	430	162	150	156	468	1,575	1,667	- 94
1972-73	83	93	88	104	135	112	140	672	113	124	147	384	161	153	154	468	1,524	1,607	- 60
1973-74	97	84	92	87	107	130	114	614	142	114	125	381	146	159	151	456	1,451	1,548	- 59
1974-75	88	93	82	87	90	102	132	586	124	137	115	376	125	147	159	431	1,393	1,481	- 67
1975-76	102	93	96	89	92	90	110	570	140	119	140	399	122	116	133	371	1,340	1,442	- 39

students in grades 1-6 reached a high of 901 in 1967-68 and have declined steadily since then reaching a low of 570 in 1975-76. In the junior high (grades 7-9) the highest enrollment for the 11 year data period was 531 students in 1966-67. The fewest students in any year was 376 in 1974-75 with an increase of 23 students to 399 students enrolled in 1975-76. In the senior high (grades 10-12), the peak enrollment was reached in 1969-70 with 519 students. Each year since then the number of students has held steady or decreased to a 1975-76 enrollment of 371 students. The annual decrease in total number enrolled has ranged from 24 to 99 students with the total decrease over the 11-year period being 560 students.

Table 3 presents the annual census of School District D during the period 1965 through 1975. Of greatest significance in projecting school enrollment are the census figures for 0-year-olds through 4-year-olds. The smallest number of 0-year-olds recorded during the 11 year period were in census years 1972 and 1973 when 45 children were counted each year. This was 43 fewer then the 1966 high of 88 children. The 1974 and 1975 counts of 56 and 59 respectively show a reversal in the previous pattern of decline in the 0-year-old population. Of even greater importance for projecting school enrollments, however, is the year-to-year growth of age groups of pre-school children. During the census years 1973 through 1975, a growth pattern has been evident in every age group of pre-school children. For example, there were 45 0-year-olds in 1973. This group grew to 60 1-year-olds in 1974 and 83 2-year-olds in 1975. Likewise, the 74 3-year-olds in 1973 grew to 83 4-year-olds in 1974 and to 97 5-year-olds in 1975. This pattern has occurred to

Table 3

SCHOOL CENSUS HISTORY FOR SCHOOL DISTRICT D, 1965-1975

School Census Year	0	1	2	3	4	5	TOTAL 0-5	6	7	8	9	10	11	TOTAL 6-11	12	13	14	15	(Not Att) 16	(Att) 16	27	TOTAL 12-17	TOTAL	CHANGE IN GRAND TOTAL
1965	78	74	90	127	113	132	614	120	131	132	162	154	156	855	195	174	156	172	2	134	174	1,007	2,476	--
1966	88	79	89	104	128	117	605	137	125	137	138	173	158	868	159	200	179	159	1	168	140	1,006	2,479	+ 3
1967	69	78	67	84	103	127	528	115	128	120	140	131	169	803	152	161	199	172	1	155	171	1,011	2,342	-137
1968	61	87	71	70	86	99	474	128	111	127	124	134	129	753	171	156	155	197	1	175	159	1,189	2,416	+ 74
1969	66	68	89	72	73	87	455	103	130	112	128	121	128	723	136	171	157	157	0	188	176	986	2,107	-252
1970	60	78	77	90	79	87	471	87	103	129	113	139	121	692	130	136	171	160	0	160	187	944	2,107	- 57
1971	66	74	82	83	91	85	481	77	91	105	132	115	129	649	121	124	134	178	0	162	161	880	2,010	- 97
1972	45	75	72	89	74	91	446	83	82	90	104	123	115	596	132	127	133	134	0	168	157	851	1,893	-117
1973	45	57	84	74	87	83	428	92	79	79	93	105	133	581	122	129	132	117	0	136	168	804	1,813	- 80
1974	56	60	68	99	83	96	462	81	98	81	91	101	107	559	155	124	132	122	1	129	140	783	1,804	- 9
1975	59	77	83	82	107	97	505	100	95	104	82	92	105	578	112	143	126	141	4	127	137	790	1,873	+ 69

some degree in other years, but the magnitude and uniformity of the growth since 1973 appears to indicate a reversal of the overall decline of pre-school population. This is reflected in the total pre-school census trends from a high of 614 children in 1965 to a low of 428 children in 1973, then increasing in 1974 to 462 children and in 1975 to 505 children. This pattern indicates an in-migration of young families in their child-bearing years and suggests a pattern of elementary school enrollment stabilization or growth in the near future.

No mid-range forecast of enrollments had been prepared by School District D prior to the study team's visit. The writing team prepared and presented several forecasts based on different sets of input data. Table 4 presents a five-year forecast of beginning-of-year enrollments which was admittedly optimistic but was judged to most accurately project enrollment in the District. The data in Table 4 indicate that during the period 1976-77 through 1980-81, District D will experience growth in kindergarten enrollment from the 1975-76 total of 102 to 151 in 1980-81. A growth is also projected for grades 1-6 from the 1975-76 enrollment of 570 to 712 in 1980-81. These forecasts of increase are predicated on the assumption that in-migration of couples in child-bearing years will continue. This, in turn, is contingent upon the sustaining of recently revitalized industrial activity in the area to provide the incentive for in-migration. Junior high enrollments are projected to decline through 1979-80 to a low of 298 then begin to increase slightly as current in-migration of younger children in early elementary years begins to affect them. High school enrollments are expected to increase slightly, then begin another period of decline

Table 4

FORECAST OF ENROLLMENTS IN GRADES K-12 FOR SCHOOL DISTRICT D
1976-77 THROUGH 1980-81

Year	K	1	2	3	4	5	6	Total 1-6	7	8	9	Total 7-9	10	11	12	Total 10-12	TOTAL	Change
1976-77	120	103	93	97	93	90	94	570	118	135	121	374	144	118	110	372	1,436	- 6
1977-78	101	121	103	95	102	91	94	606	101	114	137	352	125	140	112	377	1,436	+ 0
1978-79	122	102	121	105	99	100	95	622	101	97	115	313	141	120	133	394	1,451	+ 15
1979-80	146	123	102	123	110	97	104	659	102	97	99	298	119	136	115	370	1,473	+ 22
1980-81	151	147	124	104	129	107	101	712	112	98	99	309	102	115	130	347	1,519	+ 46

throughout the projection period with current low elementary and junior high enrollments reaching the high school level. Total enrollment in the District is projected to stabilize during the first two years of the forecast period, then begin a moderate year-to-year increase through 1980-81.

Plant Facilities

School District D currently operates one senior high, one junior high and three elementary school buildings. No other school buildings are owned by the District and none have been disposed of as enrollment has declined. A summary description of each of the five buildings is provided below.

Senior High School

Location: Centrally located in city

Date of Construction: 1913

Type of Construction: Brick, three stories

Site: Located on 8.7 acre site shared with junior high school. Bus garage also located on same site.

Capacity and Utilization: Current enrollment in grades 10 through 12 is 371. Students also use the adjacent junior high for some classes. Designed capacity in 1913 was 800 students. A maximum of 826 students has been enrolled. Estimated maximum capacity[2] is 489.

Facilities in Building:

- School District offices
- Senior High administrative and counseling offices
- Chemistry, physics, biological laboratories
- Home economics labs
- 10 general classrooms
- Typing and business machine laboratories
- Theatre/music room
- Gym
- Woodshop
- Learning resource center

Comments: The building has been routinely well-maintained, and is physically in serviceable condition. Efforts have been made to keep the building educationally adequate and physically safe and comfortable. Nevertheless, lighting is inadequate in many teaching stations, spaces are inflexible because of the basic structural design and special-purpose areas for laboratories, shops, physical education and music are generally small and inadequate. Extensive renovation would be necessary to bring the building up to modern instructional standards. Because of inadequate specialized space, some senior high programming in music, art, home economics and industrial arts are housed in the adjacent junior high building. The lack of adequate outdoor teaching stations in physical education results in the necessity of moving students to a distant athletic field.

Junior High School

Location: Centrally located in city

Date of Construction: 1924

Type of Construction: Brick, three stories

Site: Located with Senior High School on 8.7 acre site

Capacity and Utilization: Current enrollment in grades 7 through 9 is 399. Senior high students from the adjacent building also use several teaching stations in the building. Designed

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[2] Estimated maximum capacity calculated as follows:

10 General classrooms x 30 students x 85% utilization =	255
13 Special classrooms x 24 students x 75% utilization =	234
Total	489

capacity in 1924 was 1,200 students. A maximum of 776 has been enrolled. Estimated maximum capacity[3] is 1,198. Utilization of the building at estimated maximum capacity may not be possible due to the lack of balance between general and special classroom space.

Facilities in Building:

- Junior High administrative and counseling offices
- 30 general classrooms
- 19 specialized areas, including auditorium (used for Senior High and community events in addition to Junior High)
- Gym - Associated locker areas
- Pool
- Orchestra and band room
- Science laboratories
- Language laboratory
- Industrial arts facilities in wood, electricity, electronics, welding, auto body and machine
- Art rooms
- Home economics suite
- Library

Comments: Overall maintenance programs have preserved the building well, and its structural soundness will likely be sustained for many years. General classrooms are adequate except for somewhat below standard lighting. Specialized facilities vary in adequacy: industrial arts stations serve the junior high program well and offer sufficient space (if not a convenient location) for present senior high enrollments which share them; music and physical education also shared with senior high classes are somewhat small and generally inadequate. The basic structural design of the building makes major modification difficult and program modernization is somewhat limited by the present instructional spaces, though space itself is not in short supply.

Elementary School No. 1

Location: Residential area in heart of city

Date of Construction: 1912

Type of Construction: Brick, two stories

Site: 5.5 acres (staff perceives the playground are to be inadequate for their program).

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[3]Caculations for estimated maximum capacity are as follows:

30 General classrooms	x 30 students	x .9 utilization	=	810
19 Special classrooms	x 24 students	x .85 utilization	=	388
		Total		1,198

Capacity and Utilization: Current enrollment in grades K-5 is 152. Designed capacity in 1912 was 450. A maximum of 434 have been enrolled. Estimated maximum capacity based on the self-contained classroom organization[4]

K =	50
Grades 1-6 =	342
Total	392

Current enrollment distribution:

Grade	Enrollment	Grade	Enrollment
K - one section	25	3 - one section	26
1 - one section	27	4 - one section	19
2 - one section	25	5 - one section	30

Facilities in Building:

Principal's & nurse's offices
12 general classrooms
Kindergarten room (double classroom)
Lunch room
Gym
Library (classroom size)

Comments: This building has been well-maintained, but its age and general design puts it on the margin of serviceability. Steep stairways, poor lighting, inflexibility, general deterioration of the structure and a large amount of wood in the structure makes its continued use questionable. Only five of the 12 general classrooms are currently used for grade level instruction. The remaining rooms are used for special purposes such as tutoring, science classes, television and other audio-visual presentations and speech therapy. Even though these special purpose rooms provide a certain potential for flexibility, the essentially self-contained classroom organization does not make use of it. This is an underutilized building.

Elementary School No. 2

Location: Residential area

Date of Construction: 1920

Type of Construction: Brick, two stories

Site: 2.4 acres

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[4]Calculation for maximum capacity as follows:

No. of regular classrooms x 30 students x .95 utilization
+ No. of K classrooms x 25 students x 2 sections

Capacity and Utilization: Current enrollment in grades K-4 is 103. Designed capacity in 1920 was 360. A maximum of 297 students has been enrolled. Estimated maximum capacity based on self-contained classroom organization[4]

K =	50
Grades 1-6 =	314
Total	364

Current enrollment distribution:

Grade	Enrollment	Grade	Enrollment
K - one section	24	3 - one section	14
1 - one section	26	4 - one section	21
2 - one section	18		

Facilities in Building:

Principal's and nurse's offices	Lunch room
11 general classrooms	Library
Kindergarten classroom (double classroom)	

Comments: This building is, as the above data show, being utilized far below its capacity. Many characterisitics of the building -- poor lighting, deteriorating windows, inflexible design, small site and a large amount of wood in the construction -- make the building marginal for continued use. Rooms not used for self-contained classrooms are currently used for speech therapy, tutoring, music, science and office space for an administrator working on an alternative education feasibility study.

Elementary School No. 3

Location: Recent residential development near edge of town

Date of Construction: 1958

Type of Construction: Block and brick, single story

Site: 40 acres

Capacity and Utilization: Current enrollment in grades K-6 and special education (TMR) is 426. The designed capacity in 1958 was 500. The largest number enrolled was 435. Estimated program capacity based on self contained organization[4]

K =	50
Grades 1-6 =	456
Total	506

Current enrollment distribution:

Grade	Enrollment	Grade	Enrollment
K (a.m.)	28	4	23
K (p.m.)	20	5	31
1	24	5	30
1	25	6	32
2	24	6	31
2	24	6	30
3	27	TMR	7
3	28	TMR	9
4	24	TMR	9

Facilities in Building:

Principal's and nurse's offices
16 classrooms
Kindergarten room
Gym/Lunch room
Audio-visual/music room
Library
Speech therapy room

Comments: This building is the most adequate one in the District in which to house an elementary program. Though nearing 20 years old, it is characterized by adequate lighting, a bright atmosphere, easy-to-maintain surfaces and modern safety features including fire-safe construction. The large site assures adequate playground area. The location while in a newer area of town is not the area where continued growth is expected. In addition to the K-6 program, three sections of special education (TMR) are housed in the building. Most of these students live in a residential treatment center in the city and are tuition students from their home districts. The building is, in the principal's opinion, now utilized to capacity.

With the exception of the Elementary School No. 3 building, all of the facilities of the District are old and would require extensive renovation in order to provide learning facilities of adequate flexibility and design to accommodate developing instructional programs. Because of the buildings' construction characteristics, extensive changes would be extremely expensive or impossible. Beyond this, the current fiscal priorities of the District are making it necessary to choose among necessary maintenance projects needed to keep the building safe. The necessity for a new smokestack at the high school, for example, preempted

the replacement of windows needed at an elementary building. The high school is inadequate in several special purpose areas, with the Junior High absorbing some of the overflow. Between the two secondary buildings the programs are being housed adequately though not conveniently.

Two of the three elementary buildings are currently utilized far below capacity, especially considering the self-contained classroom organization. The third and newest building is currently used to capacity and is, by far, the most adequate facility in the District.

Community loyalty to the neighborhood school appears to have continuing influence on keeping all three elementary buildings open.

Staffing

Staffing is an important function of management because education is a labor-intensive industry with over 80 percent of school districts' budgets expended for salaries. Four types of information about District D's staff are of interest; 1) size of the certificated staff, 2) distribution of staff on the salary schedule, 3) implications of staffing adequacy for program in terms of class size, and 4) size of non-certificated staff.

The size of the certificated staff is indicated in the following list:

Position/Classification	Number
Superintendent	1
Senior High Principal	1
Junior High Principal	1
Elementary Principal	1
Elementary Teachers	28
Secondary Teachers	46
Librarians	3
Secondary Counselors	2
Speech Therapist	1

Position/Classification	Number
Nurse	1
Certificated Aides	2
Total	87

The distribution of the teaching staff on the salary schedule is presented in Table 5. Table 5 presents both the 1975-76 salary schedule by step by lane and the number of persons on each step in each lane. These data indicate that District D has a mature staff. Over 68 percent of the teachers are at the top of the schedule and the average age is 58 years.

Table 5

SALARIES AND NUMBERS OF CERTIFICATED PERSONNEL BY EXPERIENCE AND LEVELS OF TRAINING IN SCHOOL DISTRICT D, 1975-76

Step	Three Year	No. of Staff	B.A.	No. of Staff	B.A. +15	No. of Staff	B.A. +30	No. of Staff	B.A. +45	No. of Staff	M.A. or B.A. +60	No. of Staff	M.A. +15 B.A. +75	No. of Staff
0			8,600	4	8,800		9,250		9,700		10,200		10,600	
1			8,940		9,340		9,790		10,240		10,740		11,140	
2			9,380	1	9,780		10,230		10,680		11,180	1	11,580	
3			9,960	2	10,360		10,810		11,260		11,760		12,160	
4			10,540		10,940		11,390		11,840		12,340		12,740	
5			11,120	1	11,520		11,970	1	12,420		12,920		13,320	
6			11,500	4	11,900	2	12,350		12,800	1	13,300		13,700	
7			12,200	2	12,600		13,050	1	13,500		14,000		14,400	
8			12,850		13,250	2	13,700		14,100		14,600	1	15,200	1
9			13,700	1	14,100	1	14,550		15,000		15,500		15,900	
10	10,150	3	14,600	9	15,000	9	15,650	6	16,200	3	16,600	10	17,100	17
TOTAL		3		24		14		8		4		12		18

One way to look at the relationship of numbers of staff to educational program is to examine class sizes and pupil teacher ratios. In 1975-76 the average elementary class size was 20.4 students per class in grades 1-6 and 24 students per kindergarten class. There are 28 elementary teachers serving the 688 elementary students, this number includes one music teacher, one physical education teacher, two kindergarten teachers and two special education teachers for an overall

elementary pupil teacher ratio of 24.6:1.

The data in Table 6 indicate the distribution of class size by subject matter area in the junior high school.

Table 6

JUNIOR HIGH SCHOOL CLASS SIZE, SCHOOL DISTRICT D

	Class Size						
Subject	1-15	16-20	21-25	26-30	31-35	Over 35	TOTAL
Math		4	6	4	1		15
Music	2			2			4
Social Studies			6	4			10
Business Education							
Agriculture							
English	2	6	4	4			16
Art	1		2		1		4
Reading	3						3
Science		5	5	10			20
PE/Health		3	2	6	2		13
Home Economics	4	3					7
Industrial Arts	1	6	1				8
Foreign Language	4	1	3	1			9
Drivers' Education						1	1
TOTAL	17	28	29	31	4	1	110
PERCENT	15.5	25.4	26.4	28.2	3.6	.9	100
CUMULATIVE PERCENTILE	15.5	40.9	67.3	95.5	99.1	100	

Of the 110 classes, only drivers' education, two physical education classes, one art class and one math class has over 30 students per class. There are 25 or fewer students in 67.3 percent of the classes. Table 7 shows data on class size by subject area for the senior high school. The data indicate that all senior high classes have 30 or fewer students except for band and chorus. Seventy-nine and nine-tenths percent of all classes have 25 or fewer students. The overall ratio of secondary students to classroom teachers is 17.8:1.

Table 7

SENIOR HIGH SCHOOL CLASS SIZE, SCHOOL DISTRICT D

Subject	Class Size 1-15	16-20	21-25	26-30	31-35	Over 35	TOTAL
Math	3		4	2			9
Music					1	1	2
Social Studies		2	2	5			9
Business Education		5	8				13
Agriculture							
English	2		10	5			17
Art 5	5						5
Reading							
Science	2	9	2	3			16
PE/Health		1	3	2			6
Home Economics	3	5		2			10
Industrial Arts	3	7	5	1			16
Foreign Language	4	1					5
Drivers' Education							
Aviation	1						1
TOTAL	23	30	34	20	1	1	109
PERCENT	21.1	27.5	31.2	18.4	.9	.9	
CUMULATIVE PERCENTILE	21.1	48.6	79.9	98.2	99.1	100	

The numbers of non-certificated staff are distributed as follows:

Classification	Number (FTE)
Custodial	13
Food Service	4
Instructional Aides	2
Secretarial/Clerical	14
Other	12
Total	45

Selected Financial Data

Enrollment trends interact with the financial condition of a school district. As enrollment declines, revenues tend to decline under the present aid formula. At the same time, unit costs increase because smaller numbers of students are served and staff persons with lowest

seniority are released first. A five-year history of General Fund revenue receipts by level of source is reported in Table 8.

Table 8

GENERAL FUND REVENUE RECEIPTS IN SCHOOL DISTRICT D
BY SOURCE LEVEL, 1970-71 THROUGH 1974-75

Level/Source	Year 1970-71	1971-72	1972-73	1973-74	1974-75
Local[a]	$964,647	$991,311	$ 556,585	$ 810,539	$ 535,237
County	11,211	10,622	21,708	16,215	13,604
State	817,389	989,692	1,065,589	1,038,374	1,195,605
Federal	30,933	46,057	31,986	31,635	36,700
TOTAL	$1,824,180	$2,037,682	$1,675,868	$1,896,763	$1,781,146

[a]Amounts do not include sales of materials and abatements.
Source: Annual Reports, State Department of Education.

The data in Table 8 indicate that revenues from local sources have tended to decrease and revenues from state sources have tended to increase since 1972-73. Total revenues reported during the period have fluctuated. Caution must be exercised in interpreting these data because they are derived from a cash accounting system which recognizes revenue upon receipt. Table 9 presents a summary of selected General Fund expenditure by function for the same period, 1970-71 through 1974-75. These data indicate that the selected General Fund expenditures rose from $1,760,523 to $2,141,703 during the five-year period. This increase represents a gain of 21.7 percent for the same period of time during which enrollments dropped by 319 students or 18 percent.

The effect of declining enrollment in District D on unit costs is suggested by the data in Table 10. These data indicate that the

Table 9

GENERAL FUND EXPENDITURES BY FUNCTION BY YEAR FOR SCHOOL DISTRICT D, 1970-71 THROUGH 1974-75

Function	1970-71	1971-72	1972-73	1973-74	1974-75
Administration (100)	$ 73,176	$ 77,113	$ 86,597	$ 84,788	$ 97,853
Instruction (200)	1,140,050	1,165,954	1,212,144	1,226,936	1,409,774
Attend. & Health (300-400)	12,668	13,088	13,459	13,444	14,157
Transportation[a] (500)	57,309	58,038	64,739	65,902	85,283
Operation of Plant (600)	286,133	306,645	309,412	338,305	317,982
Maintenance of Plant (700)	44,659	53,429	44,567	24,442	25,596
Fixed Charges (800)	146,528	160,725	165,111	121,577	191,058
TOTAL	$1,760,523	$1,834,992	$1,896,029	$1,875,394	$2,141,703

[a]Separate fund starting 1973.

Source: Annual Reports, State Department of Education.

Table 10

PUPIL UNITS AND UNIT COSTS IN ADJUSTED MAINTENANCE EXPENDITURES IN AVERAGE DAILY MEMBERSHIP FOR SCHOOL DISTRICT D, 1970-71 THROUGH 1974-75

Selected Data (ADM)	1970-71[a]	1971-72	1972-73	1973-74	1974-75[b]
Resident Pupil Units	1,957	1,873	1,793	1,726	1,654
State Median	NA	938	953	948	NA
Adj. Main. Cost PPU[c]	$932	$926	$997	$1,025	$1,212
State Median	$636	$681	$722	$780	NA
Foundation Aid PPU	$202	$339	$480	$511	$587
State Median	NA	$346	$468	$506	NA
Bonded Debt PPU	--	--	--	$116	$118
State Median	$710	$693	$701	$713	NA

[a]All 1970-71 reported in ADA and adjusted to ADM with exception that Bonded Debt PPU and its state median remain in ADA.

[b]1974-75 data are preliminary data as of January 16, 1976.

[c]Adjusted Maintenance Cost excludes expenditures for veterans training, community services and receipts from sale of lunches, materials, student activities and refunds as specified by the State Department of Education for a particular year.

Source: Selected Data Reports, State Department of Education.

adjusted maintenance cost per pupil unit has risen from $832 in 1970-71 to $1,212 in 1974-75, an increase of 30 percent.

The financial condition of District D is further complicated by a declining local assessed valuation primarily due to declining mineral valuation. The total assessed valuations by year are as follows:

Year	Assessed Valuation
1974	$19,835,748
1975	$16,733,383
1976	$14,773,642

This decline in assessed valuation means that a higher local mill rate is needed each year to generate a comparable amount of revenue.

The District incurred a deficit of approximately $150,000 in 1974-75. In looking ahead to 1975-76, the District anticipates revenues in the amount of $2,350,000 and expenditures of $2,550,000 producing an end-of-year deficit of $200,000.

Management Responses to Enrollment Decline

Declining enrollments have confronted District D with difficult and trying management situations. The District has responded to these problems from year to year with essentially no mid-range planning effort. The District has no forecasts of enrollment, revenue or expenditures. Cutback decisions have been made as each annual budget has been prepared.

Each year since 1966-67 the elementary staff has been reduced. Records indicating the numbers reduced for each year were not readily available because early reductions were handled routinely through attrition and reassignment through 1971-72. In the spring of 1972, one secondary teacher was terminated effective during the 1972-73 school year. The termination was appealed in court and the District was

required to reinstate the teacher. In the spring of 1973, four teachers, one elementary and three secondary teachers, were terminated for the 1973-74 school year. In addition, one elementary principal now serves the three buildings which were formerly served by three administrators.

To date, the educational program has suffered minimal curtailment from what it has previously been. The opportunity for innovation and development appears diminished. Administrative and supervisory services have been cut to a minimum with three principals. The Superintendent is the only central office administrator with direct responsibility for District administrative affairs including general administration and business management.

The District is aware that its elementary buildings are under-utilized. Community loyalty to the traditional neighborhood school has caused the District to avoid closing any elementary schools.

Alternatives

Alternatives for the future of District D will be affected by variables other than enrollment. However, it is possible to speculate on the types of actions that may be taken if enrollments continue to decline, stabilize at present levels or increase.

If very recent increases in numbers of pre-school and school age children do not continue, total enrollments could continue to decline. The current optimistic viewpoint in the District does not expect continued decline. It is possible that continued decline could occur. Should enrollments continue to decrease substantially the District may be forced to consider the following:

1. Substantial budgetary and programmative cutbacks to avoid deepening deficit spending.

2. Closing one and perhaps eventually two elementary buildings.

3. Increasing class sizes at both elementary and secondary levels.

4. Setting minimum class sizes for electives in secondary programs; if course enrollments are insufficient, the programs would be dropped.

5. Reduce and eventually eliminate co-curricular activities including low participation sports, high cost music programs, junior high athletics and others depending on community priorities.

6. Entering into more extensive cooperative programs with neighboring districts to provide needed services that the District could not provide alone.

7. Consolidation with a neighboring district with similar problems may provide a partial solution.

Should enrollments stabilize at their present levels, the District would still have to deal with difficult management problems. Among them would be the following:

1. The problem of budgetary cutbacks would persist because of increasing staff maturity, inflation and current deficit spending practices.

2. Plant facility problems of underutilization and increasing maintenance cost would continue; one elementary building may have to be closed.

3. Staff would have to be eliminated to balance the budget and along with moderate staff reduction would come an increase in class size and a struggle to maintain program offerings.

The most optimistic set of circumstances for the District would include a substantial enrollment increase. The hope for an increase in enrollment is tied to the taconite mining activity. While the new plant is located in a neighboring district, it is actually closer to District D. Will the employment opportunities there be filled by local residents currently employed or underemployed in other firms or industries? Will there be an in-migration of new families and opportunity for local young people to remain and find employment? If the enrollments should increase, the implications for District D would include the following:

1. A somewhat improved financial condition because of the added revenue.
2. Better utilization of both staff and plant facilities in the District. A significant increase would allow updated or new programs and new facilities for physical education and other areas.
3. Larger enrollments would permit employment of more leadership and supporting personnel for the instructional program.

Case Study Questions

1. What characteristics make School District D different from other districts in the state?
2. What is the school community like and how do its characteristics affect the District?
3. What would you list as the strengths and weaknesses of District D's educational program?
4. If you had to predict future enrollments in District D, how would you interpret the trend data presented in the case materials?
5. How would you characterize the District's staff?

6. What policies would you recommend to the Board of Education to ease the District's financial difficulty?

7. List the steps you would take in planning future directions for District D.

FOREWORD

These case study materials were prepared to assist school officials and interested citizens in dealing with problems associated with enrollment decline. The case study approach is most useful in dealing with complex problems where several solutions are possible and one "right" answer is not implicit in the data.

The subjects in these case materials are actual districts in Minnesota. The districts were selected because their enrollments had declined at least ten percent or 100 students from 1970-71 through 1974-75. Secondly, the districts were chosen as being representative of differences in size and community background. None of the cases are offered as complete studies of the districts involved. While real data and management actions are reported, the cases themselves were written as study materials intended to stimulate discussion and not to present a complete report on the selected district. Fairly extensive data were included in the materials when available because of the authors' conviction that planning for declining enrollment must be data based. While there is much similarity in the nature of problems among the five districts, important differences do exist.

The Bureau of Field Studies and Surveys and the State Planning Agency wish to thank officials in the local districts and the Minnesota Department of Education who generously gave of their time and talent in providing information for the case study materials.

EXECUTIVE SUMMARY

District E was small before its enrollment began its recent decline. In 1967-68 it reached a high of 684 students in grades K-12. In 1975-76, its K-12 enrollment was 464 students, a drop of 220 students or 32 percent over the eight-year period. The enrollment decline reflects smaller family size, an aging population and increasing farm size in the agricultural area it serves. The District's buildings are located in a small town which had a population of 750 persons on the 1970 census. The town itself shows signs of decline.

A small district such as District E has less room to trade-off and maneuver as enrollment declines. The basic issue in District E is a question of survival. Starting in 1971-72, and in each subsequent year, the staff has been reduced. All reductions have been handled through attrition and reassignment. Starting in 1972-73 an elementary grade level position has been eliminated starting in grade one and in 1975-76 reaching grade four. Eventually there will be only one section per grade in the elementary school. If enrollment continues to decline, combination grades may have to be established. Co-curricular basketball for grades five and six were eliminated this year.

At the secondary level, the German teacher and one business teacher have not been replaced. As the smaller elementary enrollments feed into the secondary grades, even more cut-backs will be necessary. School officials are considering the use of correspondance study for individual students when programs have to be cut.

The District is engaged in several cooperative efforts with other districts to provide desired services. District E and a neighboring district jointly employ a speech therapist, an elementary principal, an

art teacher and several coaches. The Superintendent will retire at the end of 1975-76.

Difficult decisions about the District's future need to be made. In five years, the K-12 enrollment is expected to drop to 370 students. The District can expect to have financial problems. In October, 1975 the voters approved a supplementary levy by a vote of 104 to 97, one of very few extra levies approved in the state. Seven votes is a narrow margin.

The school is undoubtedly the strongest cohesive force in the small town. The values of educational opportunity and community vitality have to be carefully weighed. Another alternative is district reorganization. If the District were to reorganize, it might well be divided among two or more districts also experiencing enrollment decline.

CASE STUDY NO. 5

The School District

School District E serves a predominantly rural community in southwestern Minnesota. For the past nine years the student enrollment has steadily declined from 684 students in 1967-68 to its present enrollment of 464 students. This 220 student decline represents a decrease of 32.2 percent. A school official identified the primary reasons for the decline as decreasing family size and increasing farm size resulting in fewer family-owned farms. The instructional organization is K-6-6. The District operates one elementary school and a junior-senior high school combination building which also houses the District offices.

School District E participated in a number of cooperative educational programs. Two transfer of student agreements with other school districts, one formal and one informal, resulted in a net gain of 60 students enrolled in School District E. The increase is the result of 80 students being transferred into the School District, while 20 students from School District E attend a school district geographically closer to their homes. District E and a third neighboring district jointly employ a speech therapist, an elementary principal, an art teacher and several athletic coaches. A regional cooperative provides a part-time psychologist and a supervisor of special education. The District's computer services are provided by the Minnesota Educational Computing Consortium (MECC). A summer community recreation program for young people and adults is funded jointly by the School District, local churches and the city. School District E sends its educable mentally retarded (EMR) and trainable mentally retarded (TMR) students to still another neighborhing district.

In 1975-76 the staff consisted of three administrators, 13 certificated elementary staff, 19 certificated secondary staff, five cooks, three custodians and nine other staff persons. Community support for the District was expressed when last year the voters approved a three-mill levy for support of the District. The District expended $637 per pupil unit expenditure in Average Daily Attendance (ADA) in 1970-71 compared with the state adjusted mean of $663.[1] The District's 1974 total assessed valuation was $6,991,596, 87 percent of which was accounted for by agricultural property.

The Community

The school community is really part of several communities when viewed from a services standpoint. The focal point of the School District community is the small town in which the school buidings are located. The 1970 Federal Census reported a population of about 750 persons in the town. The principal industry in the community is agriculture with some of the most productive farm land in the state located in the area. The land is used for grain farming, dairy and farms producing hogs and feeder pigs. The small town's economy is based on small businesses which support agriculture; implement dealers, feed stores and a coop elevator. The business climate appears to be declining with several store buildings on Main Street being vacant. The public library closed five years ago. A number of retired farmers live in town. Construction has been started on a two bedroom apartment building for moderate income persons, but there appears to be a shortage of adequate housing.

[1]Source: Accounting Memo No. 1, State Department of Education.

Elementary Program

The elementary program is organized on the self-contained classroom approach to instruction. Elementary teachers receive assistance from Title I teachers, a psychologist, a speech therapist and secondary music and art teachers. All elementary students receive first aid instruction and participate in interest groups. The following subjects are taught in the elementary grades:

Reading
Spelling
Language
Social Studies
Science
Physical Education
Band
Remedial Reading Title I
Penmanship
Math-Arithmetic
Health
Art
General Music

A School District official mentioned the possibility of adding a computer-assisted instruction program for the elementary students.

Secondary Program

The secondary education program is divided into semester courses offered during a seven period day. The curriculum of the first three grades in the secondary school is summarized below:

Grade 7

Required:

1st semester	2nd semester
Art	English
English	History
General Music	Home Economics (girls)
History	Industrial Arts (boys)
Mathematics	Mathematics
Physical Science	

Grade 8

Required:

1st semester	2nd semester
English	Art

Home Economics (girls)	English
Industrial Arts (boys)	General Music
Mathematics	Mathematics
Physical Education & Health	Physical Sciences
World Geography	World Geography

Grade 9

Required:

1st semester	2nd semester
Agriculture I	AgricultureI
Algebra I	Algebra II
Civics	Basic Wood
Computational Arithmetic	Civics
Drafting	Earth Science
Earth Science	English I
English I	General Business
Home Economics	Home Economics
Physical Education & Health	Physical Education & Health

Electives:

Grade 7 and Grade 8	Grade 9
Junior High Chorus	Chorus
Junior High Band	Band

The following courses are required for graduation:

Grade 10

1st semester	2nd semester
American History	American History
Language Arts	Language Arts
Physical Education	Physical Education & Health

Grade 11

1st semester	2nd semester
Language Arts	Language Arts

Grade 12

1st semester	2nd semester
Language Arts	Language Arts
Social Problems	Social Problems

In addition, one semester of each of the following are required for graduation: speech, composition and literature.

The elective courses available are as follows:

Department and Course	Semester	Grade(s)
Agriculture		
Agriculture II	1,2	10
Agriculture III	1,2	11
Agriculture IV	1,2	12
Art		
Art Methods	1,2	10,11,12
Advanced Art Methods	1,2	10,11,12
Business Education		
Typing	1,2	10,11,12
Shorthand I	1,2	11,12
Transcription	1,2	10,11,12
Bookkeeping	1,2	10,11,12
Office Practice	1,2	10,11,12
Home Economics		
Advanced Clothing (75-76)	1	10,11,12
Advanced Foods	2	10,11,12
Child Care (75-76)	2	10,11,12
Spending Money Wisely (74-75)	1	10,11,12
Family Living	1	10,11,12
Contemporary Housing (74-75)	2	10,11, 12
Bachelor Living	2	11,12
Industrial Arts		
Metals I	1	10,11,12
Metals II	2	10,11,12
Advanced Woods	1	10,11,12
Cabinet Making	2	10,11,12
Girls' Shop	1	10,11,12
Finishing Techniques	2	10,11,12
Language Arts		
Short Study	1	10,11,12
American Novel	2	10,11,12
Basic Grammar	1	10,11,12
Research Paper	2	10,11,12
Speech	1,2	10,11,12
Literary Cavalcade	1,2	10,11,12
Drama	2	10,11,12
Art and Man	1,2	10,11,12
Independent Reading	1,2	10,11,12
Creative Writing	1	10,11,12
Journalism	2	10,11,12

Department and Course	Semester	Grade(s)
Mathematics		
Algebra I	1	10,11,12
Algebra II	2	10,11,12
Algebra III	1	10,11,12
Trigonometry	2	10,11,12
Geometry I	1	10,11,12
Geometry II	2	10,11,12
Calculus	2	10,11,12
Analysis	1	10,11,12
Occupational Math	2	10,11,12
Music		
Band	1,2	10,11,12
Chorus	1,2	10,11,12
Science		
Biology	1,2	10,11,12
Chemistry	1,2	11,12
Physics	1,2	12

Co-Curricular Activities

Co-curricular activities have been reduced this year with debate and basketball teams for grades 5, 6 and 9 being eliminated. The non-athletic activities include declamation, drama, school paper, yearbook, clubs, student council and music groups. The athletic opportunities for girls include track, basketball and volleyball. Boys' athletics include football, basketball, wrestling, baseball, volleyball, 7th-8th-9th grade track, 7th-8th grade basketball and 7th-8th grade football.

Supporting Services

The library services have received Title IV B, Title II and Title III funds to purchase learning materials. The librarian is also responsible for the extensive number of audio visual materials owned by the district.

The School District provides food services for approximately 345 students in grades K-12 each day at the elementary school. Bus transportation is provided for 75 percent of the School District's students. The contracted bus service provides eight routes including service for kindergarten and special education. Supervision of the teachers and curriculum development are the responsibilities of the principals. The School District employs a high school counselor in addition to a part-time psychologist at the elementary school. Their responsibilities include testing, counselling and working with parents. The Iowa Basic Achievement Test is given to elementary students. The Minnesota Achievement Test is an optional test provided by the School District to test secondary student achievement.

Enrollment Trends

Table 1 presents the beginning-of-year enrollments for School District E over the 11-year period from 1965-66 through 1975-76. During this period, a general and persistent pattern of decline has characterized the enrollment data.

In kindergarten, the highest enrollment was in 1965-66 when 52 students were enrolled. With some fluctuation, the pattern has been one of general decline, with the lowest kindergarten enrollment of 16 reported in 1972-73. In the three succeeding years, some relatively minor growth has occurred with the 1975-76 enrollment reported at 23 students. This number is fewer than half of the number of students enrolled in 1965-66.

In grades 1-6, the pattern is of even more consistent decline. During the three-year period 1965-66 through 1967-68, identical enrollments of 295 elementary students were recorded. Each year since then, fewer

Table 1

BEGINNING-OF-YEAR ENROLLMENT HISTORY FOR SCHOOL DISTRICT E, 1965-66 THROUGH 1975-76

	K	1	2	3	4	5	6	Total 1-6	7	8	9	Total 7-9	10	11	12	Total 10-12	Total 1-12	Total K-12	Change
1965-66	52	48	45	46	51	52	53	295	51	61	58	170	62	45	58	165	630	682	--
1966-67	40	53	45	46	48	50	53	295	58	54	67	179	56	60	47	163	637	677	- 5
1967-68	48	43	52	49	48	52	51	295	55	56	54	165	65	57	54	176	636	684	+ 7
1968-69	47	51	41	54	46	46	53	291	52	53	56	161	53	61	55	169	621	668	- 16
1969-70	38	52	45	40	53	46	44	280	57	52	49	158	53	54	58	165	603	641	- 27
1970-71	42	39	47	45	41	54	45	271	45	56	49	150	48	52	51	151	572	614	- 27
1971-72	30	42	43	47	46	41	51	270	49	45	54	148	48	48	50	146	564	594	- 20
1972-73	16	30	42	39	45	43	40	239	49	46	45	140	54	47	46	147	526	542	- 52
1973-74	18	21	27	44	37	44	45	218	41	50	44	135	43	53	48	144	497	515	- 27
1974-75	21	17	22	28	47	40	46	200	46	40	51	137	43	40	52	135	472	493	- 22
1975-76	23	22	17	24	29	45	39	176	46	43	39	128	52	44	41	137	441	464	- 29

elementary pupils have been enrolled with 176 being counted at the beginning of the 1975-76 school year. The overall elementary school decrease over the period 1965-66 to 1975-76 was 119 students. Grades 5 and 6 now have two sections. The other elementary grades, including kindergarten, have only one.

The junior high enrollment decline has been consistent from a high of 179 students in 1966-67, except for 1974-75 when an increase of two students over the previous year occurred. The lowest number reported was in 1975-76 with 128 students. This low represents a drop of 51 students since the 1966-67 high.

In the senior high, the highest enrollment for the period, 176 students, was reached in 1967-68. A generally declining pattern has been evident since then with a low of 135 students being reached in 1974-75. This number increased in 1975-76 by two students to 136. The decrease from the high of 176 students in 1967-68 to the 137 students in 1975-76 was 39 students.

The K-12 totals for District E show that the 1967-68 enrollment of 684 was the highest in the reporting period. The total enrollment has been consistently lower each year since then, decreasing between 16 and 52 students per year to a low of 464 in 1975-76. This enrollment reflects a 220 student drop in the eight years since the 1967-68 high.

Table 2 reports School District E census data for the years 1965 through 1975. The data for ages 0 through 5 are particularly important in that they can assist the district in forecasting future enrollments. The number of 0-year-olds in the district is determined primarily by live births but also reflects migration of families in and out of the

Table 2

SCHOOL CENSUS HISTORY FOR DISTRICT E, 1965 THROUGH 1975

School Census Year	Ages																						Grand Total 0-17
	0	1	2	3	4	5	Total 0-5	6	7	8	9	10	11	Total 6-11	12	13	14	15	(Not Att) 16	(Att) 16	17	Total 12-17	
1965	41	32	38	48	42	45	246	45	47	46	52	50	56	296	63	52	55	58	0	47	46	321	863
1966	28	37	32	40	46	41	224	47	44	46	45	48	50	280	57	64	52	56	0	53	44	326	830
1967	16	23	37	33	36	40	185	41	47	44	49	45	48	274	48	57	62	49	1	51	57	325	784
1968	13	17	23	38	35	40	166	40	48	47	44	48	48	275	50	48	57	62	0	47	53	317	758
1969	17	15	11	22	37	34	136	41	39	44	46	43	46	259	47	50	45	53	0	60	50	305	700
1970	28	15	18	9	23	38	131	37	39	39	44	46	42	247	46	49	47	44	0	54	62	302	680
1971	22	21	18	18	11	24	114	38	36	36	41	43	46	240	42	44	46	47	0	43	51	273	627
1972	21	20	24	18	17	12	112	26	38	37	35	40	39	215	45	40	44	47	0	47	43	266	593
1973	14	22	24	21	21	17	119	15	23	39	35	35	42	189	43	46	40	47	0	47	48	271	579
1974	14	15	21	22	22	21	115	18	13	27	38	40	35	171	43	41	46	38	0	45	45	258	544
1975	18	12	16	24	26	22	118	19	20	15	26	39	37	156	35	39	40	48	0	37	44	243	517

District. Changes in numbers of 1 through 5 year olds are determined primarily by the migration of families. The number of 0-year-olds has fluctuated during the period reported, but the overall trend has been downward. The largest number of 0-year-olds, 41 children, were reported in 1965; the smallest, 13 children, in 1968. Fluctuations in such small numbers as those reported here cannot be interpreted as significant except as long-term trends are seen. District E appears to have slowly decreasing numbers of 0-year-olds. The total numbers of pre-school children are somewhat more useful in that they deal with a larger group and present a more discernable trend. The largest number of pre-school children resided in District E in 1965; a total of 246 children. This number has decreased each year of the period except for 1973 and 1975 when increases of seven and three children respectively were reported. The overall decrease in pre-school children from 1965 to 1975 was 128 children or approximately one-half.

It may be noted that some discrepancy occurs between the number of children reported in an age category on the census history and the number of children enrolled in the corresponding grade. This occurs because of an interaction of the following factors:

1. Several children residing in the community attend a parochial school outside the District.
2. Because of the size of the District and proximity of a neighboring district's schools to some parts of it, some students attend in the other district on a tuition basis. Conversely, District E enrolls some students from another neighboring district on a tuition basis.

In each of the above circumstances, the numbers of students involved remain essentially in the same proportion to the District's total enrollment each year. It is not, therefore, discussed in detail in this study. Should the proportion change, however, adjustments would have to be made in the data as enrollment forecasts were made.

Table 3 presents a forecast of beginning-of-year enrollments for grades 9-12 in District E for the years 1976-77 through 1980-81 as projected by the District's administration. This projection was based on the assumption that all persons enrolled in the elementary and junior high programs would continue through 12th grade and did not project in- or out-migration. This projection was made in November of 1974.

Table 3

PROJECTED DISTRICT E HIGH SCHOOL ENROLLMENTS, 1976-77 THROUGH 1980-81

Year	Male	Female	TOTAL
1976-77	93	85	178
1977-78	91	91	182
1978-79	89	81	170
1979-80	94	83	177
1980-81	81	79	160

Table 4 presents a forecast of beginning-of-year enrollments for the period 1976-77 through 1980-81 using the cohort survival ratio method which takes into account migration patterns reflected in census and enrollment data during a given historical period. The forecast presented in Table 4 utilizes historical data from the years 1970-71

Table 4

FORECASTS OF PRESCHOOL CENSUS AND GRADE LEVEL ENROLLMENTS
IN SCHOOL DISTRICT E, 1976-77 THROUGH 1980-81

Year	K	1	2	3	4	5	6	Total 1-6	7	8	9	Total 7-9	10	11	12	Total 10-12	TOTAL	Change
1976-77	30	24	22	17	24	29	45	161	40	45	42	127	38	51	44	133	451	- 13
1977-78	31	32	25	23	17	24	29	150	46	39	44	129	42	38	51	131	441	- 10
1978-79	21	33	33	25	23	17	24	155	29	45	38	112	43	41	37	121	409	- 32
1979-80	17	22	34	33	25	23	17	154	24	28	44	96	38	43	41	122	389	- 20
1980-81	24	18	22	34	33	25	22	154	18	24	28	70	43	37	42	122	370	- 19

through 1975-76. This forecast anticipates an overall decline in enrollment in elementary, junior high and senior high grades.

Kindergarten enrollments are expected to rise from 23 in 1975-76 to 30 in 1976-77, then to 31 the following year. Kindergarten enrollments are then expected to decrease each year to a low of 17 in 1979-80, then rise to 24 students in 1980-81. This appears to be a picture of stability with fluctuation rather than certain decline.

Continual decline is somewhat more consistent in the totals forecast for grades 1-6. From the 1975-76 enrollment of 176 students, the projected number drops off to 150 students in 1977-78, then stabilizes at 155 or 154 students for the following three years. By 1977-78, it is likely that there will be only one section of each grade, K-6.

Junior high enrollments are projected to remain stable through 1977-78 with 129 students in that year compared to 128 students in 1975-76. Then they are expected to fall off substantially each of the following years to 70 students in 1980-81. These data represent a 46 percent decrease over the five-year period.

Senior high enrollments are expected to decrease from 137 students in 1975-76 to 121 students in 1978-79, then stabilize at 122 students for the following two years.

Total K-12 enrollment in District E is expected to decrease annually from 10 to 32 students throughout the period of the forecast from 464 students in 1975-76 to 370 students in 1980-81, an overall decrease of 94 students.

Plant Facilities

District E houses its instructional program in one elementary school and one junior-senior high school. No other school buildings are owned by the District, and none have been closed as a result of declining enrollment. A summary description of each of the school buildings is presented below.

Elementary School

Location: Edge of town

Date of Construction: 1957

Date of Addition: 1965

Type of Construction: Block and brick, one story

Site: Located on ten acres adjacent to secondary school athletic field. Physical education stations shared with secondary school.

Capacity and Utilization: Current enrollment is 199. Highest enrollment served was 350. Estimated maximum capacity[2]

K - 5(
Grades 1-6 - 34:
Total 39:

[2]Calculation of estimated maximum capacity:
12 classrooms x 30 students x 95% usage = 342 students 1-6
+ 1 classroom x 25 students x 2 sections = 50 students K

Present Utilization of Facilities:

Grades	Enrollment	Grades	Enrollment
K - one section	23	4 - one section	29
1 - one section	22	5 - two sections	45
2 - one section	17	6 - two sections	39
3 - one section	24		

Facilities in Building:

12 general classrooms
1 kindergarten room
Gym/lunchroom combination
Library
Principals' & nurses' office

Comments: Eight of the 12 general classrooms are in use as self-contained classrooms. The kindergarten room is used for half of the day. Three of the other four general classrooms are currently used for Title I tutoring, art/speech instruction and music instruction. One classroom is not in regular use. The gym/lunchroom is used to serve lunch to elementary and secondary students, the secondary students walking the three blocks each noon. The building is in excellent condition, both structurally and from an educational program standpoint. it is currently underutilized.

Junior-Senior High School

Date of Construction: 1911

Dates of Additions: 1938, 1957, 1965

Number of stories: 3

Type of Construction: The 1911, 1938 and 1957 sections are all stone; the 1965 section is block and brick.

Site: The building virtually fills the site on which it is located, leaving no room for parking or outdoor athletic facilities. A stadium and outdoor teaching stations (approximately ten acres) are located three blocks away at the elementary school.

Capacity and Utilization:

Current enrollment: Junior High - 128
Senior High - 137
Total 265

Highest enrollment served: 333

Estimated maximum capacity: 429[3]

Facilities in Building:

District administrative office	Science laboratory
Secondary administrative and counseling offices	Agriculture shop & classrooms
9 general classrooms	Industrial arts shop
Gym	Art room
Home economics room	Typing laboratory
Band/chorus and practice rooms	Library
	Study hall

Comments: All sections of the building are extremely well-constructed and are structurally in sound condition. Structural design makes the building quite inflexible, however, and not easily modified. Electrical service, lighting and plumbing are inadequate in the three oldest sections.

All classes are small and partially account for the fact that the building is housing a program for slightly over half the estimated maximum capacity. Students must leave the campus for outdoor physical education and lunch, walking three blocks to the elementary school where facilities for these services are available.

Staffing

The most important resource of any school district is its staff. Four types of information about School District's E staff are of interest; 1) size of the certificated staff, 2) distribution of staff

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[3]Calculation for estimated maximum capacity:

Jr. High:	5 General classrooms x 30 students x 90% utilization =	135
	5 Special classrooms x 24 students x 85% utilization =	102
	Total	237
Sr. High:	4 General classrooms x 30 students x 85% utilization =	102
	5 Special classrooms x 24 students x 75% utilization =	90
	Total	192

(General and specialized facilities shared equally by junior and senior high programs)

Total for Building = 429

on the salary schedule, 3) implications of staffing adequacy for program in terms of class size, and 4) size of the noncertificated staff.

The size of the certificated staff is indicated in the following list:

Position/Classification	Number
Superintendent	1
Elementary principal	.5
Secondary principal	1
Elementary teachers	10
Title I elementary teachers	3
Secondary teachers	17
Librarian	1
Counselor	1
Psychologist	.5
Nurse	1
Speech therapist	.5
Total	36.5

The data in Table 5 indicate the present salary schedule and the numbers of certificated personnel by experience and training. Table 5 data indicate that one certificated staff member is at the two-year training level, 22 staff members are at the B.A. level, three staff members are at the B.A. + 15, one certificated staff members is at the B.A. + 30 level and eight certificated staff including the three administrators are at the M.A. level. The distribution of the certificated staff tends to be bimodal. One group of certificated staff members tends to hold B.A. degrees and have fewer than five years of experience. The second sub-group has both more training and more experience.

Table 6 indicates the distribution of junior high school class sizes by subject matter area. The data indicate that typically the class sizes fall in the 21-25 student range with 92 percent of the classes having fewer than 25 students. Similar data are provided in Table 7 for senior high classes. Over one-third of the senior high

Table 5

SALARIES AND NUMBERS OF CERTIFICATED PERSONNEL BY EXPERIENCE AND LEVEL OF TRAINING IN SCHOOL DISTRICT E, 1975-76

Two Year	No. of Staff	B.A.	No. of Staff	B.A. + 15	No. of Staff	B.A. + 30	No. of Staff	M.A.	No. of Staff
0		8,500	5	8,880		8,950		9,100	
1		8,800	1	9,135		9,300		9,470	
2		9,100	4	9,470		9,650		9,840	
3		9,400	4	9,805		10,000		10,210	
4		9,700	2	10,140		10,350		10,580	
5		10,000		10,475		10,700		10,950	1
6		10,300		10,810		11,050		11,320	
7		10,600	2	11,145		11,400		11,690	
8		10,900	1	11,480		11,750		12,060	
9		11,200		11,815	1	12,100		12,430	2
10		11,500	2	12,150		12,450		12,800	
11		11,800		12,485		12,800	1	13,170	1
12	1	12,100	1	12,820	2	13,150		13,540	3
TOTALS	1		22		3		1		7

Table 6

JUNIOR HIGH SCHOOL CLASS SIZE, SCHOOL DISTRICT E

Subject	Class Size 1-15	16-20	21-25	26-30	31-35	Over 35	TOTAL
Math			4				4
Music			1				1
Social Studies		2	2				4
Business Education							
Agriculture							
English		1	5				6
Art			1				1
Reading							
Science			2				2
Physical Education/ Health		2	1	1			4
Home economics	1			1			2
Industrial Arts		1					1
TOTAL	1	6	16	2			25
PERCENT	4	24	64	8			100
CUMULATIVE PERCENTILE	4	28	92	100			

Table 7

SENIOR HIGH SCHOOL CLASS SIZE, SCHOOL DISTRICT E

Subject	Class Size 1-15	16-20	21-25	26-30	30-35	Over 35	TOTAL
Math	4	1	1				6
Music							
Social Studies		2	4	1			7
Business Education	3		3				6
Agriculture	5						5
English	3		2	1			6
Art		2					2
Reading		1		1			2
Science	1	6					7
Physical Education/ Health			1		1		2
Home Economics	1	1	1				3
Industrial Arts	1		2				3
TOTAL	18	13	14	3	1		49
PERCENT	36.8	26.5	28.6	6.1	2		100
CUMULATIVE PERCENTILE	36.8	63.3	91.9	98	100		

classes have 15 or fewer students. As enrollment continues to decline, some of these courses will become increasingly uneconomical to offer. Secondary pupils in grades 7-12 are served by 17 classroom teachers for a pupil-teacher ratio of 15.6 to 1.

At the elementary level, there is one kindergarten section with 23 students. The average class size in grades 1-6 is 22 students. Dividing the 199 pupils in grades K-6 by number of teachers yields a pupil-teacher ratio of 20 to 1.

The number of non-certificated staff are distributed as follows:

Classification	Number
Cooks	5
Custodians	3
Secretaries	3
Other	3
Total	14

The relationship between enrollment, revenues, expenditures and unit costs is complex. The data in Table 8 indicate the receipts for the General Fund by level of the source (excluding sales of materials and abatements) for the years 1970-71 through 1974-75. The data in Table 8 indicate that adjusted total general fund revenue decreased from $446,791 in 1970-71 to $404,249 in 1974-75. The data in Table 9 indicate that during the same period selected General Fund expenditures increased from $512,633 to $569,931. Table 10 presents selected unit cost data from the same period; 1970-71 through 1974-75. These data indicate that the adjusted maintenance expenditure per pupil unit in average daily membership increased from $671 to $824 during the same period. The K-12 enrollment in 1970-71 of 614 declined 121 students to 493 during this period. Many variables including inflation, staff maturation and the Omnibus Tax Law of 1971 were affecting the financial picture, but the net effect was a drop in enrollment and revenue and an increase in expenditure and unit costs. The District has not prepared forecasts of revenue or expenditures beyond the annual budget.

Table 8

GENERAL FUND REVENUE RECEIPTS IN SCHOOL DISTRICT E
BY SOURCE LEVEL, 1970-71 THROUGH 1974-75

	Year				
Level/Source	1970-71	1971-72	1972-73	1973-74	1974-75
Local[a]	$204,855	$162,406	$168,612	$158,576	$ 97,717
County	2,059	2,097	2,623	2,517	2,038
State	213,831	243,197	294,964	265,424	284,439
Federal	26,046	30,267	37,689	25,097	21,910
TOTAL	$446,791	$437,967	$503,888	$451,614	$406,104

[a]Amounts do not include sales of materials and abatement.

Source: Annual Reports, State Department of Education.

Table 9

GENERAL FUND EXPENDITURES BY FUNCTION BY YEAR FOR SCHOOL DISTRICT E, 1970-71 THROUGH 1974-75

Function	Year 1970-71	1971-72	1972-73	1973-74	1974-75
Administration (100)	$ 27,172	$ 28,277	$ 29,275	$ 28,635	$ 31,747
Instruction (200)	369,311	413,290	396,768	365,806	409,298
Attend & Health (300-400)	4,249	4,370	4,445	4,486	2,964
Transportation[a] (500)	45,838	44,668	46,422	47,833	49,587
Operating Plant (600)	40,555	40,716	40,163	42,978	49,916
Maintenance of Plant & Plant (700)	10,546	6,634	9,112	6,781	6,525
Fixed Charges (800)	14,965	18,752	17,797	17,737	19,897
TOTAL	$512,636	$556,707	$543,982	$514,256	$569,934

[a] Separate fund starting 1973.

Source: Annual Reports, State Department of Education.

Table 10

PUPIL UNITS AND UNIT COSTS IN ADJUSTED MAINTENANCE EXPENDITURES IN AVERAGE DAILY MEMBERSHIP FOR SCHOOL DISTRICT E, 1970-71 THROUGH 1974-75

Selected Data (ADM)	Year 1970-71[a]	1971-72	1972-73	1973-74	1974-75[b]
Resident Pupil Units	634	610	575	539	509
State Median	NA	938	953	948	NA
Adj. Maintenance Cost Per Pupil Unit[c]	$671	$712	$713	$727	$824
State Median	$636	$681	$722	$780	NA
Foundation Aid Per Pupil Unit	$170	$249	$375	$393	$420
State Median	NA	$346	$468	$506	NA
Bonded Debt Per Pupil Unit	--	$770	$765	$761	$619
State Median	$710	$693	$701	$713	NA

[a] All 1970-71 reported in ADA and adjusted to ADM with exception that Bonded Debt PPU and its State Median are ADA.

[b] 1974-75 data are preliminary data as of January 16, 1976.

[c] Adjusted training, community services and receipts from sale of lunches, materials, student activities and refunds as specified by the State Department of Education for a particular year.

Source: Selected Data Reports, State Department of Education.

Responses to Enrollment Decline

Enrollment decline has precipitated some unique management problems in School District E. The District was small even during its peak enrollment years. Consequently, there has been less room to trade-off and maneuver as enrollment declined.

Staff reduction has been the most significant action taken by School District E in response to declining enrollment. In the school year 1971-72 and every subsequent year, staff reductions were made, but were managed through attrition and reassignment. In 1971-72 the part-time German teacher and one business teacher were not replaced. In 1972-73 a first grade position was eliminated; a second grade position was eliminated in 1973-74; a third grade position in 1974-75; and this year a fourth grade position was eliminated. Co-curricular basketball for grades 5 and 6 was also eliminated this year. One of the actions taken by District E in response to the effects of declining enrollment and other factors was to ask the voters to approve an additional levy. A copy of the official ballot is presented below.

Official Ballot
SPECIAL ELECTION

INDEPENDENT SCHOOL DISTRICT E
OCTOBER 7 ,1975

INSTRUCTION TO VOTERS: VOTERS DESIRING TO VOTE IN FAVOR OF SAID PROPOSITION PUT A CROSS MARK (X) IN THE SQUARE OPPOSITE THE WORD YES. VOTERS DESIRING TO VOTE AGAINST SAID PROPOSITION PUT A CROSS MARK (X) IN THE SQUARE OPPOSITE THE WORD NO.

VOTE ON THE PROPOSITION STATED BELOW:

☐ YES
☐ NO

SHALL INDEPENDENT SCHOOL DISTRICT E OF MINNESOTA, INCREASE ITS LEVY FOR GENERAL AND SPECIAL SCHOOL PURPOSES IN AN AMOUNT EQUAL TO THREE MILLS TIMES THE MOST RECENT ASSESSED VALUATION OF THE DISTRICT WHICH WHEN APPLIED TO THAT VALUATION WILL RAISE $20,975.00; SUCH LEVY TO BE ADDED TO THE AMOUNT OF MILLS AS ALLOWED BY MINNESOTA STATUTES SECTION 275.125, SUBD. 2a (1) AND (2) WHICH ADDITIONAL MILLAGE SHALL BE ALLOWED EACH YEAR THEREAFTER UNTIL OTHERWISE REVOKED BY LAW.

The need for the levy increase was explained to the voters as indicated in the document below.

TO THE VOTERS OF SCHOOL DISTRICT E

There will be a special election of District E on Tuesday, October 7th, from 4:00 p.m. to 9:00 p.m. at the Grade School Building to vote on whether the school board shall be authorized to levy additional taxes above the amount set by the state. People will be asked to decide on whether or not to allow an additional three mills which would raise $20,975.00 based on the last available assessed values.

The board earnestly requests that voters express their opinions on this matter at the polls on that day.

The reason for requesting this increase in taxes is that the district income is locked in by a state formula to a figure for operating expenses. The costs of operating a school have increased at a much more rapid rate than the formula has projected.

Because of many factors involved, including changes in assessed valuations and other changes in the tax laws, it is impossible to predict accurately what increase in taxes there would be if this additional levy is passed. Some representative pieces of property, neither the highest nor the lowest in the district, are estimated to have the following results:

Property	*1975 Total Tax*	*1975 School Tax*	*1976 School Tax*
A home in _____	$ 349.43	$ 142.18	$ 153.71
"Farm" in _____	570.78	328.40	363.31
"Farm" in _____	504.80	275.83	290.57
"Farm" in _____	537.14	333.13	364.29

A "Farm" means 160 acres with buildings and owner lives on the farm.

Some significant figures, latest available, are:

1975 Mill Rates Non-Ag.

Neighbor No. 1	56.92
Neighbor No. 2	49.38
Neighbor No. 3	48.45
Neighbor No. 4	46.76
Neighbor No. 5	45.68
Neighbor No. 6	45.22
District E	43.89

Ag rates, in all cases, will be exactly 8.33 mills less.

1973-1974 Per Pupil Costs

Neighbor No. 1	$ 1,567.00
Neighbor No. 2	1,246.00
Neighbor No. 7	1,157.00
Neighbor No. 8	1,155.00
Neighbor No. 4	1,139.00
Neighbor No. 6	1,117.00
Neighbor No. 9	1,108.00
Neighbor No. 10	1,048.00
Neighbor No. 11	1,020.00
Neighbor No. 5	992.00
District E	990.00
Neighbor No. 12	935.00

The voters approved the special levy with a vote of 104 yes and 97 no.

Alternatives

The principal issue in District E is simply one of survival. The Superintendent will retire at the end of the 1975-76 year placing an even greater leadership requirement on the School Board during the transition. The special referendum passed by a narrow margin. The enrollment forecast indicates a continued decline. What are the alternatives?

One alternative for District E is to continue to operate. Continued operation will mean still higher unit costs and will require continued community support in the form of additional levy authorizations. Program opportunities at the secondary level will be reduced. School officials are aware of this problem and are considering replacing dropped course offerings with approved correspondence courses. Further cooperative efforts and staff sharing with neighboring districts are also being considered. Combination classes may have to be considered at the elementary level to reduce the effects of lower enrollments and rising costs. The School District is an important part of the community. Continued operation will contribute to community vitality. The major question to be faced by the School District officials is how long the school system should function to contribute to community vitality as opposed to adequacy of educational program.

A second alternative is for District E to reorganize with neighboring districts. If this were to happen, the District might well be divided among two or more districts that are also experiencing enrollment decline. Dealing with the second alternative involves questions of education program, transportation routes, staff employment, debt retirement, use

of plant facilities and many others. What kind of reorganizational action can produce better educational opportunity for the young people in the School District E community?

Case Discussion Questions

1. How do you think the citizens of the town and the larger school community feel about District E?

2. If you had children in both the elementary and secondary grades, how would you assess the quality of their education if they attended School District E?

3. What generalizations would you make about demographic trends in the School District community as you study their census and enrollment trends?

4. What are the implications of enrollment trends for school plant facilities in District E?

5. What do you think will happen to the staff in District E as the enrollment continues to decline?

6. What are the significant variables and relationships in the fiscal condition of District E in the years ahead?

7. If you were the next Superintendent in District E, what planning or other techniques might you employ to help the Board of Education make key policy decisions?

8. Would you recommend continued operation or consolidation? Justify your position based on data presented in the case.

9. How would you interpret the pre-school census data for 1973 through 1975?