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Solution Options to the Problem of Growth/Overcrowding as It Manifests Itself in Illinois' Public Schools

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SOLUTION OPTIONS TO THE PROBLEM OF GROWTH/OVERCROWDING
AS IT MANIFESTS ITSELF IN ILLINOIS' PUBLIC SCHOOLS

by

Teddy Stephen Struck

A Dissertation Submitted to the Faculty of the Graduate School
of Loyola University of Chicago in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Education

May
1993
The purpose of this study was to validate the problem of growth/overcrowding in Illinois' public schools and to identify the solution options that would solve the stated problem.

The first step toward meeting the purpose of this study was to review related literature. In the review of related literature the following research questions were used as a guide in the acceptance or rejection of the data: (1) can the data provide for substantiation or elaboration of any of the solution options; (2) is the practical application of the data that provides for a solution to the problem legal in Illinois; (3) are the data based on practical application in districts past attempts to solve the problem or have the data been proven in theory as a practical part or whole solution option and (4) do the data provide for the identification of solution options? As a result of this first step the following solution options were identified:

1. Bonding and Building
2. Reorganization/Consolidation
3. In-District Utilization of Space
4. Rent/Lease of Non-District Owned Space
5. Joint Facility Use Agreements
6. Year Round School
7. Multiple Shifting

The second step in this study was to present each identified solution option to a sample of school districts made up of districts that had been identified as having been impacted by
the stated problem. As a result of interviews with the decision makers of the sample districts with regard to the identified solution options the following conclusions were reached:

1. The Seven Solution Options Presented Are Legal And Were Proven Effective In Providing Some Degree Of Solution To The Problem.

2. Beyond The Seven Solution Options Presented No Other Solution Options Were Identified.

3. The Bonding And Building Solution Option Was The Solution Option School Districts Chose The Most In Their Efforts To Solve The Problem.

4. Upon Implementation All Seven Of The Solution Options Cause Side Effects That Can Be Beneficial Or Detrimental To The School District.

5. The Ability To Successfully Implement A Solution Option Can Be Enhanced When A Solution Option Known To Be Unpopular In A Community Is Offered As An Alternative To The Solution Option Desired By The School District.

6. Each School District In Illinois Is Unique And As Such Requires A Tailor Made Application Of One Or More Of The Solution Options To Solve The Stated Problem.
ACKNOWLEDGMENTS

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T. S. S.
VITA

The author, Teddy Stephen Struck, is the son of Theodore and Esther Struck. He was born April 9, 1949, in Morris, Illinois.

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Chapter One

This study was undertaken in an effort to provide a number of practical solution options to the problem of growth and overcrowding as it manifests itself in Illinois' schools. As an introduction to the total text of this study, this chapter presents a validation of the stated problem of growth and overcrowding in select Illinois' schools and an overview of the information presented in the following chapters.

During the last decade, issues regarding the educational system in Illinois have been noteworthy enough to be reported as front page news, the topic of learned debate and generally the subject of much public discussion both positive and negative. Issues such as accountability, resource equalization
and falling test scores have provided fodder for the media as well as impetus for legislative action. Although the aforementioned issues are for the most part of broad importance to the residents of Illinois, one area of particular concern to several school districts that has not generally been the subject of state wide public debate or media coverage is the issue of overcrowding in public schools.

Illinois, like several other states, is experiencing significant localized population growth in several areas. In a report by American Demographics, Illinois was shown to have four of the top ten housing growth counties in the United States.¹ Along with accountability, resource equalization, etc., the issue of growth and overcrowding of schools in these areas is very real and very pressing.

One does not have to have more than a basic understanding of school finance in Illinois to understand that a school district may very well be considered wealthy by comparative standards and, without passing a building referendum, not have anywhere near the capability of being financially able to maintain the space required to provide adequately for a child's education.

Certainly the opportunity for a school district to grow along with the population of its students is available through the issuance of building bonds. However, realizing that the issuance of bonds, and therefore adding to the district's tax rate is the subject of a referendum vote, one must understand that increasing the district's levy through a referendum is not a "sure thing." For example, a report on success rates for school tax rate propositions in *IASB News Bulletin/No. 469*, shows that in the last ten years, referenda for the purpose of increasing school district tax rates in Illinois have passed in only 564 out of 1543 attempts.² Given the urgency of most building needs, a rate increase success ratio of 26% does not seem to be very encouraging to those districts that are in fact impacted by growth and subsequent space problems. For the 26% of the districts who were able to access new dollars, hopefully, the problem can be resolved. However, for the 74% of the districts that were not able to get new resources, the problem not only remains but will continue to grow as the student population increases.

Perception of crowded classrooms as a problem is an issue that not only varies in communities, but also by individual interest groups within communities. A common excuse used to

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ignore crowding as a problem is to refer to large class sizes "back when I was in school." In reality, Hallinan and Sorensen, found that in our current society not only do teachers believe that small classes are essential for quality education, but research studies have verified that large class size has a significant negative effect on student achievement. Further, Finn and Achilles, have shown that manifestation of class size as a problem in public schools is more evident in communities, schools or classrooms that have a higher proportion of special needs populations. In essence, it would seem that by not addressing or perceiving a need to address the issue of overcrowded classrooms, a school district is hurting the educational growth of its students, especially if those students exhibit special needs or are a member of a minority group.

As has been stated, overcrowded classrooms and subsequent increased difficulty of quality learning may in and of itself offer impetus to a community to address the issue of overcrowding; however, for those in a community not convinced

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that student learning should be the only criterion for addressing a crowding problem, several other manifestations of the problem may be used to further add validity to the need for change.

As a school's population rises and the amount of space that is available to service the population remains constant, the classrooms are not the only areas that prove to be negatively affected by growth. "Common areas," that is, areas used perhaps daily by the entire population of students, also give rise to problems. A school cafeteria that is designed to feed 600 students a day, now having to serve 800, can lead to a very stressful, if not dangerous problem. Students may be forced to eat in a lesser period of time or may end up with a poorly prepared or inadequate lunch simply because of a lack of capacity in the cafeteria. The same scenario could be followed with regard to available capacity in the gymnasium, library and washrooms. Weldon, Loewy, Winer and Elkin, show that the effects of high density in educational environments were uniformly negative and could be devastating. Further, McAffee found that aggressive behavior in elementary students was consistently and markedly higher under high density situations.

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Clearly the effects of overcrowding in schools on children are not limited only to classrooms and learning.

Logistically, management of an overcrowded school can also mean inefficiency, inadequacy, and therefore misspent resources. As more and more space is needed to service children less and less space becomes available for ancillary needs. As conference rooms become classrooms or resource space, storage space becomes conference space and so on. A loss of storage can mean a loss of efficiency in purchasing needed supplies. No conference room space leads to an inability to accommodate special needs as they arise. The end result is the appearance of mismanagement, a loss of purchasing power and ultimately, deteriorating effectiveness. Another area that is negatively impacted is administrative and office space. Recordkeeping, nursing stations, disciplinary areas, are all likely to exhibit their own specific inefficiencies as the number of expectations and requirements of those given areas rise with the burgeoning student population.

Programmatic requirements also grow, both with and without regard for student population growth. For example,

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new technology in education has made demands on space regardless of the number of new students enrolled. Language labs, computer labs, reading labs all require space and are as much a part of education today as the chalkboard was fifty years ago. Special needs populations must be serviced by law without regard for space concerns. In an interview with Gordon Dremann, Director of the Grundy County Special Education Cooperative he indicated that identified special needs populations are presently growing at a rate of 10% per year.7 This being the case, there is a 10% demand for new special needs space per year that schools are mandated by law to meet.

Finally, from a legal perspective, Honeyman, notes that there appears to be a growing interest by the courts regarding the ability of school districts to provide adequate facilities.8 For example, in the decision in Abbot v. Burke a New Jersey administrative law judge noted:

... It is obvious on this record that facilities present a statewide problem.... I do not believe that widely differing physical plants can be justified on an equal

7 Interview with Gordon Dremann, Grundy County Special Education Cooperative, Morris, Illinois, 11 April 1991.

I find that a more systemic way of dealing with replacing and renovating ... should be incorporated into the financing system.\(^9\)

Regardless of all the negative factors associated with overcrowding in schools it seems that, very simply put, the majority of school boards in Illinois believe that the only way or the best way to solve the problems caused by overcrowding in their schools is by passing a referendum and building classrooms. Yet, many taxpayers have not been willing to pay the price necessary to solve overcrowding problems by building new space.

Research by Newman seems to point to decreasing educational effectiveness or quality as classroom size increases.\(^10\) Solving the problem, then, becomes a question of quality of service versus a community's willingness to do whatever is necessary to solve the stated problem. Too often taxpayers have taken services for granted, especially when a


loss of some of those services is not immediately evident to them. A community's ability to educate a child adequately is not always immediately evident. In fact, shortcomings in a child's education may not become evident until significant deficits have been incurred. Therefore, in order to offer an appropriate and adequate education to children in districts with overcrowded classrooms the district must:

- Make the community understand why/how overcrowding is detrimental to a child's education.

- Offer the community more than just one option ie: a building bond referendum to solve the problem.

Previously cited studies offer a great deal of data with which a district can substantiate the need to maintain and control classroom size for the purpose of continuing the ability to educate children appropriately. Further, Newman, offers that there seems to be agreement that:

- Smaller classes in the lower grades have a positive effect on student learning, attitudes and behavior.
• Minority, disadvantaged and low achieving students perform better in smaller classes.

• Lowering class size to 20 may have a positive effect on student learning, but lowering it only to 30 may not.

• Many positive results are believed to come from small classes.\textsuperscript{11}

Humphrey and Weber, in their study of why finance elections fail, suggest that the best way to get the public to listen is to offer year round information and solicit community involvement of any kind with the schools. "Districts should exercise caution in excluding or targeting individual groups."\textsuperscript{12} Finally, "districts should become more politically wise in the community by forging allegiances with community leaders and power blocs."\textsuperscript{13} Based on this information, it is possible that issues are not always settled based on specificity, quality or quantity of information but rather are settled based on the

\textsuperscript{11} Ibid.


\textsuperscript{13} Ibid.
overall community perception of the district and the district's ability to become a political force in the community. Options or alternatives to a rate increase for bonding and building purposes can also provide significant opportunities for the district to offer the community enough information over a period of time to give the impression that the district is doing everything possible to solve the problem and only as a last resort must ask for a rate increase.

In summary, recognition and substantiation of the problem of growth and overcrowding in schools have been made. The problem is real. It is, therefore, necessary to identify and define options for solving the stated problem. Those options are presented to provide information about the solutions that were researched and explored throughout the remainder of this study.

The Options

A significant effort has been made to identify all research previously submitted as solutions to the problem of growth and overcrowding in schools. The result of that effort was a recognition of the fact that research based data that is topic specific to the identified problem was at best minimal. Therefore in order to continue this study a broad base of related topics was viewed extensively in an effort to identify bits of
data that could in any way relate to the stated problem. The result of this non topic specific review was a quantity of information which when analyzed produced a group of options that could be studied, researched and ultimately categorized as viable solutions to the stated problem. The following list, therefore, is a product of a broad based research effort to identify solution options available for addressing the problem of growth and overcrowding in Illinois' schools. For the purpose of clarity a brief explanation of each solution is presented. Further insight and research into each option is presented in Chapter Two of this study.

SOLUTION OPTIONS FOR ADDRESSING THE PROBLEM OF GROWTH AND OVERCROWDING IN ILLINOIS' SCHOOLS

1. Bonding and Building.
2. Reorganization/Consolidation.
3. In-district Utilization of Space.
4. Rent/Lease of Non-district Owned Space.
5. Joint Facility Use Agreements.
6. Year Round School.
7. Multiple Shifting.
Bonding and Building

Bonding and Building is a process by which new space can be added to school districts in Illinois. To further explain, a bond is a written promise, signed by the President and Secretary of a school board, to pay a specified amount of money (the face value) at a fixed time in the future (the maturity date) and at a fixed rate of interest. Building bonds are bonds sold for the purpose of acquiring or constructing school buildings and/or sites for school buildings. Further, a school district's ability to incur debt (bonding power) is limited by Illinois State Statute to 6.9% of its equalized assessed valuation in dual districts and 13.8% of its equalized assessed valuation in unit districts. The statutory limit may be 15% when certain requirements are met. (Section 19-1, The School Code)\textsuperscript{14}

In order for a board of education to exercise its ability to go into debt for building purposes, it must first gain approval to do so from the registered voters residing within the boundaries of the school district. The process through which voter approval is requested is called a referendum. The entire referendum process is very laborious and time consuming in that definitive plans for the building or building addition that is to be

\textsuperscript{14} Illinois, School Code sec. 19-1.
constructed must have been certified by an licensed architect and must be completed prior to the referendum in order to arrive at the amount of money that will be requested in the referendum.

**Reorganization/Consolidation**

Reorganization and Consolidation are terms that in the text of this document can be used interchangeably as general terms that cover many different methods for school districts to be combined, deactivated, or reorganized. The following is a list of types of reorganization methods that are germane to this study.

**School District Boundary Change (Article 7)**

Permits boundary changes through Annexation, Detachment, Division, Dissolution or any combination of same. No new school districts can be formed under this article.

**Unit School District Conversion in Districts Grades 9-12 (Article 7A)**

Establishes the basic requirements for dissolving a unit district, annexing its territory to a contiguous high school district and converting it into an elementary district.
**Unit School District Formation (Article 11A)**

Establishes the requirements for forming a unit school district from the territory of two or more unit districts or the adjacent territories of dual district territories.

**Combined District Formation (Article 11B)**

Formation can come from either two or more entire elementary districts or two or more entire high school districts.

**District Conversion (Article 11D)**

Provides for new districts formed from dissolving a unit district and forming a new high school district and one or more elementary districts.

**In District Utilization of Space**

Provides for an ability to managerially create new student space by redefining: a.) in district attendance center boundaries, b.) grade level designation of attendance centers, and c.) designation of non classroom areas in the attendance centers.
Rent/Lease Non-district Owned Space

This option is exercised through a written agreement that makes it possible to acquire from another party appropriate space that is needed to help address the problem of overcrowding. It is important to note that this study will deal with the rentee/lessee side of rent/lease agreements since statutory requirements differ as to rentee/lessee and renter/lessee responsibilities.

Joint-Facility Use Agreement

This type of agreement is entered into for the purpose of the sharing of a facility's physical assets for the benefit of both parties involved. For the purpose of this study, the asset involved would be space. Unlike a rent/lease agreement, money does not usually change hands in these agreements.

Year Round School

This term is used to describe a change in a school district's schedule to reflect, dependent on the plan implemented, staggered and alternating schedules. A "summer vacation" for all district students would no longer be possible. The purpose of year round school is to utilize school space more efficiently. In essence, by rotating students into schools that were formerly
not used during the summer months, the district will significantly increase its ability to house students who attend school only nine months or 174 student attendance days.

(Note: Year round school does not add attendance days to the student schedule and is not therefore to be confused with year round schooling.)

**Multiple Shifting**

This approach in schools refers to the practice of offering a minimum (in Illinois) of five academic hours during two or more separately scheduled sections of the day. A district utilizing multiple shifting is in actuality using one set of buildings to provide space for two or more separate school programs, one five hour minimum a.m. program, one five hour minimum p.m. program, etc.
Research Questions

If any data were found that provided for a negative response to any of the four following research questions those data were not accepted into this project.

1. Can the data provide for substantiation or elaboration of any of the solution options?

2. Is the practical application of the data that provides for a solution to the problem legal in Illinois?

3. Are the data based on practical application in districts past attempts to solve the problem or have the data been proven in theory as a practical part or whole solution option?

4. Do the data provide for the identification of solution options?
Sample and Procedure

The initial pool from which the sample was generated was made up of all school districts in the State of Illinois. This pool was then analyzed as to student population growth over a four year period. The result was a sample pool of 38 school districts. Specifically, the analysis of the initial pool was as follows. First, a four year control period was established from July 1, 1986 to June 31, 1990. Second, a growth district was defined as any district that had endured a twenty five percent cumulative increase in students over the four years analyzed. The 38 districts identified as a result of this criterion analysis were then contacted and interviewed with regard to their attitude toward the impact of a 25% growth over a four year period. From this interview process it was found that 31 of the 38 school districts in the sample pool had in fact had to address overcrowding problems or were in the process of addressing overcrowding problems. The seven districts deleted from the sample pool were deleted for one or more of the following reasons.

1. Growth was a product of reorganization with another district and as such there were no overcrowding issues.
2. Growth was not a problem because the district had suffered from declining enrollment in the past and the new students simply filled previously vacated space.

3. Adequate space was still available.

The sample pool for this study thus became the 31 Illinois school districts that were identified through the above process.

All 31 districts in the sample were again contacted and scheduled for an interview. It was during the interview process that the spokesman of each district was asked to what extent each of the identified solution options were considered or implemented. Further, a response was requested with regard to the use of any solution option other than those identified. Responses from the districts were then compared and contrasted in an effort to identify the factors present that allowed for implementation of any of the solution options or prevented the implementation of any of the solution options.

It was through the analysis of the information provided from the communication with the sample districts that their efforts to solve the stated problem could be studied. As a result of this study the following information with regard to the stated problem can be offered.
1. An in depth insight and understanding of the problem.
2. An in depth understanding of the solution options themselves.
3. An analysis and presentation of how the identified districts have attempted to solve the problem.
4. Recognition of the factors that lead to the success or failure of the solution options.
5. A validation of the solution options presented.
6. Identification of any solution options not initially presented.
Limitations of the Study

The data collected were limited to a very select group of schools and communities. This group was not, therefore, representative of all schools that have encountered overcrowding. As such, solutions offered would have to be adapted to the specific environment of the district within which the problem of overcrowding has manifested itself.

This study is limited to identification and manipulation of solutions to the stated problem of growth and overcrowding in Illinois' schools. Research into related factors such as how to pass a bond issue or the process of establishing a year round school schedule, etc., however germane, are only offered for clarity and reference purpose with regard to the stated problem.
Chapter Two

In an effort to review literature related to the problem of growth and overcrowding in Illinois schools, significant time and energy was put into identification and location of all data available with regard to this specific topic. Extensive review found that minimal information with regard to growth and overcrowding in schools was available. Upon a more broad based search it was found that by researching other areas that could in some way relate to overcrowding and growth in schools a significant amount of data could be found that specifically addressed this issue. Subject areas that were found to contain significant data with regard to solving the problem of growth
and overcrowding in schools were in part as follows:

1. School Size
2. School Taxes
3. Educational Quality
4. Educational Policy
5. Educational Facilities
6. School Buildings
7. Educational Finance and Equity
8. Educational Facility Planning

It was from such broad research topics that seven specific areas from which solutions to the stated problem could be derived were found.

The remainder of this chapter provides a research based insight into the specific factors that make each solution option a viable alternative for solving the stated problem.

According to "Educational Vital Signs," a supplement to the American School Board Journal, new construction costs for schools rose dramatically in the 1980's. Although a large

portion of the building that was done in the 1980's was due to aging buildings, the fact remains that the primary reason for bonding and building is to provide for an appropriate environment for students. Flores and Lake, in their study of successfully approved building bond issues, assert that voters understand the concept that students deserve a warm, comfortable, safe and uncrowded learning space just as voters deserve schools that enhance property values. Therefore, the strategy used to acquire approval of a building referendum is the same whether the impetus behind the need is growth or aging buildings.

Steadily, school buildings in Illinois are growing older and older and the need to replace these buildings will continue. Compounding this financial predicament caused by aging buildings is a growing birthrate. More babies were born in 1988 than in any year since 1964. Given such statistics it is not surprising that the financing of school construction is the "education issue of the 1990's."


18 Ibid., p. 12.
Bonding and Building

Bonding

The power to borrow money (bonding) for the purpose of building additional school space in set forth is Section 19-2 of the Illinois School Code. 19-2 gives school Boards of Education the ability to borrow money through the issuance of bonds for the express purpose of "building or repairing schoolhouses or purchasing or improving the school sites." The power or ability to borrow is, however, contingent upon being authorized to do so by a majority of the voters casting a ballot on said question at an election held in accordance with general election law.

Limits as to the school directors empowerment to issue debts are set forth in Section 19-1 of the Illinois School Code. No elementary (K-8) or High School (9-12) district may "become indebted in any manner or for any purpose to an amount, including existing indebtedness in the aggregate exceeding 6.9% upon the value of taxable property therein." No unit district

19 Illinois, School Code (1990), art. 19, sec. 2.
20 Ibid., art. 19, sec. 1.
21 Ibid.
(K-12) shall "become indebted in any manner or for any purpose to an amount, including existing indebtedness, in the aggregate exceeding 13.8% or the value of the taxable property therein." 22 Exceptions to the recent limitations set forth in Section 19-1 are as follows:

When the voters in the school district approve a proposition for the issuance of bonds for the purpose of acquiring or improving such needed school sites or constructing and equipping such needed additional building facilities at an election called and held for that purpose. Notice of such an election shall state that the amount of indebtedness proposed to be incurred would exceed the debt limitation otherwise applicable to the school district. The ballot for such proposition shall state what percentage of the equalized assessed valuation will be outstanding in bonds if the proposed issuance of bonds is approved by the voters; or

Notwithstanding the provisions of paragraphs (1) through (3) of this subsection (b), if the school board determines that additional facilities are needed to provide a quality educational program and not less than 2/3 of those voting in an election called by the school board on the question approve the issuance of bonds for the construction of

22 Ibid.
such facilities, the school district may issue bonds for this purpose. In no event shall the indebtedness incurred pursuant to this paragraph (b) and the existing indebtedness of the school district exceed 15% of the value of the taxable property therein to be ascertained by the last assessment for State and county taxes, previous to the incurring of such indebtedness or, until January 1, 1983, if greater, the sum that is produced by multiplying the school district's 1978 equalized assessed valuation by the debt limitation percentage in effect on January 1, 1979.

The indebtedness provided for by this paragraph (b) shall be in addition to and in excess of any other debt limitation. (c) Notwithstanding the debt limitation prescribed in paragraph (a) of this Section, in any case in which a public question for the issuance of bonds of a school district maintaining grades kindergarten through 8 received at least 60% of the valid ballots cast on the question at an election have not been issued, the school district may issue the total amount of bonds approved at such election for the purpose stated in the question.

Once there is an understanding of the power to enter into bonded indebtedness and the limitations of same, the school board of education must decide if the district's needs can be met by bonding. If the answer is yes and bonding is a viable vehicle

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23 Ibid.
by which the desired building project can be financed, then the board of directors must request from the voters of the district the authority to issue and enter into debt through the sale of bonds. The only way to acquire the authority to issue bonds for building purposes is to receive a majority vote on the question at a legal election; that is, to pass a referendum.

As stated in Chapter One of this study, referenda for building purposes in Illinois are difficult to pass.\textsuperscript{24} Therefore, it is important for boards of education to understand the importance and dynamics of the processes that go into creating a climate that is conducive to community support of their request to solve overcrowding problems in their schools through a building program. Research shows that boards of education as sellers of tax referenda can affect outcomes positively or negatively by influencing the attitudes of voters toward the product that is provided.\textsuperscript{25} In this case the product is a bond issue for the purpose of adding on to or building a new school. Positively affecting a voter for the specific purpose of gaining support and subsequent passage of a building referendum is


increasingly becoming a more and more sophisticated process. National news magazines, including *Newsweek*\(^{26}\) and *Business Week*\(^{27}\) have devoted extensive supplements on the perceived national crisis in education. In those supplements, the concern was that educators lack the business sense to market and sell and must turn to the business community for guidance. Conyers and Francl give credit to Madison Avenue for tips on selling their building bond issue. When using a "business model" and by turning themselves into a "marketing team" Conyers' and Francl's building bond issue passed by a two to one margin.\(^{28}\) Work by Price espouses a business model for receiving a yes vote at the polls.\(^{29}\) Despite the consequences on successful models for passing a referendum and the techniques that make up those models, ex. "know your audience, know your purpose, be prepared and keep it simple, each separate campaign is unique and requires an adaptation of the basic principles by the seller."\(^{30}\)

\(^{26}\) "Education In America: A New Look," Supplement to *Newsweek* (March 12, 1990).


\(^{30}\) Ibid.
School districts with successful experience in finance campaigns overwhelmingly have a sound, year around public relations program and have worked at knowing and identifying their supporters for campaign purposes. Referenda veterans know that consistently successful strategies are not based on one time three to six month campaigns but are built on a sustained relationship with the public.\footnote{David L. Funk, "Victory At The Polls," \textit{OSSC Bulletin} 33 (May, 1990): p. 41.} Further, the successful campaign should be child-centered throughout. In Appendix A Funk offers a "Planner" that embraces a great deal of the research that has been cited thus far in this chapter.\footnote{Ibid., p.43-44.}

Further, Hubbell offers the following as a profile of elements of successful and unsuccessful school finance elections.

Those districts that lost at the polls:

Started too late and put out too much, too soon, too quick, too fast.
Attempted to "sneak the issue through" and ran a campaign that was too "low key."

Had too much talk about money with everything too dollar-oriented.

Used explanations that were too complex.

Did not use citizen leadership but depended too much on their boards of education and staff members to handle the election information efforts.

Had campaigns that just publicized the campaign—with nothing on needs.

Mixed conviction efforts with persuasion appeals.

Used the wrong information channels—forgot to use those the "average voter" relies on.
Aimed information on district's needs to total district rather than at each area of the district.

The profile of districts that won at the polls showed:

The campaign was citizen led and involved a massive team effort—parents, non-parents, all staff, students, board members and administrators.

It was well-planned and scheduled with ample time for analysis and planning.

It was localized—addressing local concerns.

It was chiefly a neighborhood campaign with lots of face-to-face communications.

The efforts to convince people of the needs and the drive to persuade people to vote for the issues were kept separate.
The campaign was child-oriented needs were humanized; dollar-talk was minimized.

Persuasion efforts were peaked and poured on in the last three weeks.

It was tailored to use voters' information sources.

All information efforts were simplified and didn't allow complex legal, financial, educational jargon.\textsuperscript{33}

Hubbell concluded by telling workshop participants that the winners' driving theme in decision-making was, "Will this make sense to the 'average voter'?" Hubbell urged districts planning finance elections to "put yourself in the other guy's shoes and let him know what he wants to know."\textsuperscript{34}

\textsuperscript{33} Ned S. Hubbell, "Research-School Finance Elections," workshop offered in Los Angeles, California, 1990. (Mimeographed)

\textsuperscript{34} Ibid.
For clarification as well as practical purposes it is important to note that in a study of research concerning voter behavior toward school expenditures Brokaw, Gale and Merz point out that referenda for the purpose of capital improvements, especially new buildings, favorably influencing voter behavior requires less effort by the seller than do referenda calls for increased operating revenue. The feeling being that a building is tangible and there is inherent ownership by the voter.

Given the passage of a referendum for the purpose of allowing bonded indebtedness for building purposes, the board of education can then embark on the building project itself.

Building

Wood et al., in their study recommending the need for the state to commit substantial resources for school buildings in order to address equity issues, made a very strong case that as a vital part of a state's infrastructure, school buildings must be ranked above highways, roads, and prisons and equitable solutions must be found to address the building needs of school

Presently Illinois provides little if any capital support for school building projects. Certainly Wood's strong feelings toward keeping adequate and appropriate learning spaces available in a community considers not only the effect that the school has on property values but also the long term benefits of providing children with the necessities for fostering an appropriate learning environment. When a community finds itself with the need to provide more space by building in order to maintain an appropriate learning environment and authorizes the funding to provide this space, then those charged with constructing the space and expending the money have a responsibility to involve themselves in the planning that will ultimately produce the desired result. That desired result is a school building or addition that has been planned to add to the viability of the community and enhances or remediates deficiencies in students' education.

In order to plan for a school building project the board of education first determines what the school and community needs are. Comprehensive demographic data should be sought with regard to the types of developments that are causing the impact on the district. The demographic study can be

commissioned to any one of a number of consulting services that specialize in this type of information or, if carefully undertaken, can be done by the board itself. Regardless of the entity from which the demographic study is generated, the results must hold up to scrutiny as they will provide the basis from which many of the decisions regarding the building project will be made.\textsuperscript{37}

From the demographic study, with input from local planners and decision makers, the board can put together enrollment projections that will be used as the basis for deciding what the district's building requirements will be. It is important to note that a miscalculation or a poorly done demographic study could very easily result in over or under building. Either case can be the cause for a lack of community trust and support for the school district board of education and administrators.

With sound demographic data in hand the district is in a position to contact an architect, financial advisors and bond counsel for the purpose of developing basic schematic drawings and determining cost and a debt retirement schedule. From this point the referendum process becomes all important. Once the referendum passes, refinement of the building plans can be completed and the school or addition can be built.

The described scenario for adding new space to a district through a building program is not as simple as it would sound. Several factors with regard to determining the actual amount and usage of space needed, planning and designing space appropriate to the needs of the district and financing decisions should be thoroughly studied and determined. If efforts are not taken to address the above issues it is possible that simply passing a referendum, entering into debt and building a building may not turn out to be the solution for growth and overcrowding in a given school.38 Because schools have changed and are continuing to change with regard to program, educational methodology and community expectations, simple classroom space may not provide the total solution to growth. Trotter warns that many architects and engineers are unfamiliar with educational requirements which dictate a need for well defined instructional programs.39 Without such knowledge, it is difficult to design an economical, yet functional, building to house today's complex arrangements of teaching and learning activities.

38 Ibid., E1-E12.

In order to have a basis from which school floor space determinations can be made, the Illinois State Board of Education offers a document entitled Recommendations For Elementary And High School Spaces (Appendix B). By using this document to make square foot determinations those responsible for the school building process can begin to plan for the particular needs that must be addressed in order to solve the school districts' overcrowding problem.

Considerations in planning to solve the problems caused by growth and overcrowding in schools should involve as many resources as possible in order to create the best solution possible. Other than those resources directly associated with the school district one very important resource is the community in which the school district is located. Davis elaborates on the concept of the school district using the community as a resource in her study of school building projects by stating that "without the cooperation of city and county governments in finding resources and spaces to build new schools, a district cannot hope to meet the needs of its community's future students."40

"It is imperative that any planning process for growth covers not only significant efforts in the formulation of a viable master

plan for the school district but also the creation of a city / county / district partnership. 41

A good master plan has many facets that should be considered if the building project is to be properly planned. An architect must be hired; however, as stated previously, architects cannot always be trusted to have the background and expertise to fill the leadership role in developing a master plan. The board, therefore, could use the architect and other planning professionals along with the administration, central office staff, faculty, and students to gather information needed for the purpose of becoming knowledgeable of the needs that must be met by the master plan and the building project. Many of these types of people have a familiarity and an understanding of the school system and can, therefore, add input to the formulation of a master plan. Also, there are persons external to the school organization who can contribute to the process. These types of people are parents, community representatives, educational consultants, and bond attorneys. The information that each of the mentioned individuals bring to the planning process although important need not be enumerated in this document. It is important for the purpose of this study that the reader understand that input from these individuals enhances the

41 Ibid., p. 31.
probability that the final product of the master plan will be a solution to the stated problem as well as ideas for guidance in the areas of curriculum and technology. With regard to the general ideas that will serve as a basis for the planning team to create a master plan the Council of Educational Facility Planners, International offers a General List of Ideas on Planning and Designing Schools for the 21st Century.42 (see Appendix E)

Consideration of the educational specifications of the master plan must not only consider square footage (see Appendix B) but also the programs to be housed and the specific requirements of each program. The Council of Education Facility Planners, International offers several examples of the ideas that should be considered with regard to planning and consideration of needs when building new school space.43 Those ideas are condensed and available in the appendix and are indicated below, when appropriate. For example, needs in the area of technology (see appendix D) and other specialized areas must be addressed and integrated into the overall concept of curriculum and building design. (see appendix C) Rydeen points out that on a per student basis space requirements for modern

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43 Ibid.
school structures has doubled since 1969. Special education, gifted programs, use of computers in instruction, all day kindergarten, counseling, etc. have all added to the need for more space in schools. Because of this diversity of programming it is important to carry integration of these programs a final step in order to conceptualize space relationships and, therefore, understand what the district's space needs really are. (see Appendix F)

Site

Once the space and educational specifications are established a marriage of those requirements to the site can take place. Given the demographics of many districts site selection may be severely limited. However, it is not unreasonable to assume that districts suffering from growth problems are afforded a greater diversity in site selection since the primary cause of growth, new housing, opens up land areas for site selection purposes. The problem of growth and overcrowding then is not usually negatively impacted by a lack of areas in which to place new schools. It is assumed that in an effort to add a building addition to an existing school the planning team will be more restricted.

In the selection of a building site for a new building, specific criteria should be established. Each parcel of land identified as a potential site should be thoroughly examined to determine its suitability in terms of the master plan, accessibility, cost, size and future expansion. Those responsible for site selection should investigate both present and possible characteristics of the site and the surrounding property. In so doing, the following questions should be answered:

Will the site support the educational program?

Is the site's location convenient for a majority of the students?

Is the site the right size and shape?

Is the topography conducive to desired site development?

Is the general environment aesthetically pleasing?

Is the site safe?

Is the air quality healthful?
Is the site free of industrial and traffic noise?

Does the land drain properly?

Does the site have the desired trees and vegetation?45

Classroom and Other Spaces

Spaces for learning in today's schools tend to have separate learning centers for Science, Math, Social Studies, etc. Spaces are needed for large group gatherings, tables for small group work and niches for individual activity. In other words, variety is a guideword to be used when conceptualizing the actual learning spaces. A traditional classroom in which desks are provided for students and arranged in rows or similar order has a different function, that is, facilitation of attentive listening while being lectured to. The future trends in educating our youth seem to be distancing themselves from this model in favor of a more open arrangement that is flexible enough to offer or facilitate student activity and interaction.46


Classroom and learning spaces are not the only requirements of a school building project. Offices for administration, counseling, health, staff facilities and perhaps dining facilities and an auditorium are also considerations especially if the building is to serve the community of students as well as the community at large. When decisions are made concerning adequacy and appropriateness of all the human areas of the structure it is extremely important to consider color, lighting, aesthetics, acoustics and thermal environment. Energy conservation should be inherent in the planning for all spaces regardless of the use.\textsuperscript{47}

Finally, providing for the appropriate and necessary equipment to allow the educational function of the building to take place can make or break the entire project. In elementary and secondary schools appropriate and necessary equipment normally requires 10\% to 15\% of the projected construction budget. Specialized areas that are added to or built separately such as libraries may require up to 50\%.\textsuperscript{48}

\textsuperscript{47} Ibid.

Cost

It is difficult to offer cost estimates for school buildings or additions in Illinois because of the economically diverse conditions that exist in the state. Architects are willing to estimate a range of cost per square foot in the $65 to $95 area. A 30% disparity between the bottom end of the range and the top is significant and therefore reinforces the need to contract with professionals when estimating. Haas offers the following model as a means to "plug in" numbers to a formula for the purpose of arriving at an educated estimate for a building project.

A. Building Cost = $/sq. ft. x total sq. ft.

B. Fixed Equipment Costs = .05(A) (built in fixtures)

C. Movable Equipment Costs = .05(A) (desks, audio-visual, etc.)

D. Total Cost of Building Shell = A+B+C (ready for use)

E. Site Development Costs = .05(D) (landscaping and leveling)

F. Professional Fees = .07(D+E) (architects, engineers)

G. Contingency Fees = .08(D+E)

H. Land Acquisition (if applicable)

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49 Ibid.
I. Demolition Costs (if applicable)

J. Total Cost of Facility
   $D+E+F+G+(H+I)^{50}$

In his study on the effect of architecture on education, Christopher boasts that in a number of the schools visited during his research there was actual improvement by as much as 20% in test scores the first year the students were in the new building as compared to the previous year.\(^{51}\) Christopher further reported that this growth in test scores was due, at least in part, to giving teachers the proper tools, atmosphere and surroundings to do their job.\(^{52}\) If this rationale is accepted, then it becomes exceedingly important while planning the construction project to consider the educational needs in the building and not just square feet per student.

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\(^{50}\) Debra S. Haas, Report to the Faculty of the Graduate School of the University of Texas at Austin, (May 1987): p. 68.


\(^{52}\) Ibid.
The factors that go into making a decision as to whether reorganization is a solution for growth and overcrowding in a given district are endless. Because each school district in Illinois is unique, any decision to reorganize would have to be based on a district's own local circumstances. Those local circumstances seem to be more controlled by sports, traditional rivalries and socio-economic compatibility than other reasons. As a result, the literature available with regard to reorganization/consolidation and its implementation for the purpose of solving the stated problem was nonexistent. The preponderance of information available with regard to the use of reorganization/consolidation as a solution option came from the sample districts and, as such, is offered in Chapter Three of this dissertation.

For the purpose of this study, reorganization options must be considered only as a way to acquire the space needed as a result of growth and overcrowding. It would make no sense, for

example, to combine with, or annex an adjacent district that did not have an excess of space. Further, the review of literature with regard to reorganization/consolidation attempted to identify methodology and the process of the reorganization options and other data that were pertinent to the solution of the stated problem.

The legal authority for reorganization of Illinois' school districts is set forth in Article 7, Article 7A, Article 11A, Article 11B, Article 11D, Article 10-22-22B and Article 10-22-22C of the Illinois School Code.54

Article 7 of the School Code of Illinois - School District Boundary Change

Article 7 (7-1,7-2,7-4) permits boundary changes through Annexation, Detachment, Division, Dissolution or any combination of same. No new school districts can be formed under Article 7.

The State makes merger incentive payments to districts reorganized under Article 7. When one or more districts are dissolved, a supplementary General State Aid Difference Payment is provided in Article 18-8.5(a) of the School Code. A

supplementary State Deficit Payment is provided in Section 18-18.3 of the School Code. A supplementary State Teacher Salary Difference Payment is provided for in Section 18-8.2 of the School Code. A supplementary State Aid Reimbursement of $4000 dollars for each full time certified employee is provided in Section 18-8.5 of the School Code.

A petition to reorganize under Article 7 may be brought by the boards of each affected district, or the majority of registered voters in each district affected, or two-thirds of the registered voters in any territory proposed to be detached or in each one or more districts proposed to be annexed to another district.55

If a petition is filed by two-thirds of the registered voters of a territory proposed to be detached from one district and annexed to another, it must be granted by the Regional Board if the proposed change has the effect of making a high school and elementary school boundaries coterminous in the detachment area and the district to lose territory loses 10% or less of its equalized assessed valuation.

55 Ibid., art. 7.
When a district is annexed to another, the board of the annexing district becomes the governing body for the new district. All assets, obligations and liabilities, including the bonded indebtedness of the annexed district become the the responsibility of the annexing district. However, the bonded indebtedness of a dissolved district would remain the responsibility of the taxpayers of the original district.

Basic requirements for school district boundary change as set forth in Article 7-2a(b) of the Illinois School Code are as follows:

1. School district has a population of less than 5,000.

2. Dissolution petition is filed with regional board of school trustees by the school district board or by a majority of district's registered voters. (Must be filed with regional board of the region in which the regional superintendent of schools has supervision of the school district to be dissolved.)
3. Petition does not specify the district or districts to which the territory will be annexed.

4. Regional Board shall not act on a school board-filed petition if a petition in opposition to board petition is signed by a majority of district’s registered voters and filed with the regional board within a 45-day period.

5. The regional board shall attach the territory of the district to be dissolved to one or more districts and shall have no authority to deny the dissolution to one or more districts and shall have no authority to deny the dissolution petition, but shall exercise its discretion on the issue of annexing the territory of the district being dissolved, giving consideration to, but not being bound by, the wishes expressed by the residents of the various school districts that may be affected by such annexation.  

56 Ibid., art. 19, sec. 7-2a(b).
In a dissolved district(s) the positions of tenured teachers in the district being dissolved are transferred to the annexing district(s). That teacher shall be treated in the same manner in the annexing district as he was in the dissolved district(s). In the event that territory is added to two or more districts, the decision on which positions shall be transferred to which annexing district shall be made giving consideration to the proportionate percent of pupils transferred and the annexing district's staffing needs. Transfers will be made in order of seniority in the dissolving district.

Article 7A-1 of the School Code of Illinois – Unit School District Conversion in Districts in Grades 9-12

The basic requirements for dissolving a unit district, annexing its territory to a contiguous high school district and converting it into an elementary district as set forth in 7A-1 of the School Code of Illinois are as follows:

1. The unit district does not have more than 250 students enrolled in grades 9-12.
2. The elementary district so created will include all the territory of the unit district to be dissolved.

3. An existing high school district is contiguous and as part of the proceedings creating the elementary district, the high school district concurrently annexes all the territory of the unit district to be dissolved.\textsuperscript{57}

The State will make incentive payments for unit school district conversions in the form of a Supplementary General State Aid Difference Payment 18-8.5(a), a Supplementary State Deficit Difference Payment 18-8.3, a supplementary State Teacher Salary Difference Payment 18-8.2 and a supplementary State Aid Reimbursement 18-8.5 of $4,000 dollars for each full-time certified employee.

In order to have a petition filed to begin the conversion process several elements must be present in the procedure of filing the petition and the petition itself. The only two ways that a petition may be filed are 1.) by the boards of each affected

\textsuperscript{57} Illinois, \textit{School Code} (1990), 7A-1.
district or 2), with written signatures of at least 10% of the voters residing in each district affected.

Further, there must be a legal description of the territory involved. The maximum tax rates for education, operations and maintenance, pupil transportation, and life safety which both the annexing high school district and proposed elementary district are authorized to levy.

After the petition is accepted, put on the ballot and passes the Regional Superintendent shall order an election to elect the Board of Education for the new district at the next regularly scheduled election, unless that election took place at the same election that the petition was approved. Upon the close of the current year all board members of the original unit district will have their terms of office dissolved.

The newly created district receives all the assets and is responsible for all the debts of the dissolved unit school district. Any property taxes extended for any existing bonded indebtedness follow the property in the boundaries of the previous district that incurred the debt.
Teachers that had tenure with the unit district will be transferred to one of the newly formed districts by following a specific criteria:

1. Any teacher with five preceding years experience as a full time employee in grades 9-12 will be transferred to the annexing high school district.

2. Any teacher with five preceding years experience as a full time employee in grades K-8 will transfer to the newly created district.

3. Any teacher that does not fit into category one or two above can transfer to the control of either district at his/her request.58

Article 11A of the School Code of Illinois—Unit School District Formation

The requirements for forming a Community Unit School District are set forth in 11A-2 of the School Code of Illinois. The

58 Ibid., 7A-12.
proposed new district can only be formed from territories that are made up of 12 million equalized assessed evaluation and at least 4,000 in population or, the territory of two or more entire community unit districts plus any adjacent dual district territories.\(^5^9\)

The State will make incentive payments for Unit School District Formation in the form of Supplementary Generally State Aid Difference Payment 18-8.5a a Supplementary State Aid Reimbursement of $4,000 dollars for each full time certified employee 18-8.5.

In order to file a petition to form the Unit District, the petition must contain signatures of at least 200 voters which include 50 voters or 10% of the voters, which ever is lesser, from each of the districts affected by the petition. The proposition must be proposed at a regularly scheduled election. It must describe the territory involved and establish the maximum tax rates for the education, operation and maintenance, transportation and fire prevention and life safety funds. Also, the petition may request that election of board members come from seven compact contiguous school board districts rather than at large district elections. The proposition

\(^{59}\) Ibid. 11A-2.
to create a new unit district shall pass if a majority of the voters in each affected district vote in favor of the proposition.

If the proposal passes the Regional Superintendent will order an election to elect Board of Education members at the next regularly scheduled election date. Passage of the proposal will not affect the administration of the district until July 1 following the date the petition is granted.

All bonded indebtedness existing will stay with the property within the boundary of any previous district that incurred the debt.

Tenured teachers in the districts involved in the creation of the new district are transferred to the new district. The new board must treat the transferred teacher as if he/she had always been employed by the new district.

Article 11B of the School Code of Illinois—Combined District Formation

The basic requirements for Organization of Combined Districts is set forth in 11 B of the School Code of Illinois.60

60 Ibid., 11B.
The proposed new district must be contiguous and have an equalized assessed evaluation of at least $5 million dollars and a population of 1,500. Formulation can come from either two or more entire elementary school districts or two or more entire high school districts.61

The State will make Consolidation Incentive Payments to districts formed under 118 in the form of a supplementary State Aid Difference Payment 18-8.5(a), a supplementary State Deficit Difference Payment 18-8., and a supplementary State Aid Reimbursement of $4,000 dollars for each full-time certified employee(18-8.5)

In order to file a petition for Combined District Formation it must be filed by the boards of each affected district with at least 10% of the voters residing within each affected district. The petition must be proposed at a regularly scheduled election for a vote for or against the establishment of a combined school district. The territory involved must be described and the maximum tax rates must be set forth for the education,

61 Ibid.
operation and maintenance, transportation and fire prevention and safety funds.62

Property taxes extended for any existing bonded indebtedness stay assigned to property within the boundary of any previous district that incurred the debt.

If the consolidation proposal passes the election of the new Board of Directors will take place at the next regularly scheduled election; unless the new board was elected at the same election as when the proposal passed. The change will not affect the administration of the schools until July 1.

Any debt stays assigned to the property within the boundary of any district that incurred the debt.

When the new district becomes effective the tenured teachers in the districts involved in the formation of the new districts are transferred to the new district. Once there, they have the same rights they had as tenured teachers in the district they are transferring from.

62 Ibid.
The basic requirements for School District Conversion is set forth in 11 D of the School Code of Illinois.

The proposed new districts formed from dissolving a unit district and forming a new high school district and new elementary district(s) based on the boundaries of the dissolved unit district(s) may be formed from two or more contiguous unit school districts or one or more unit districts and one or more high school districts, if all of which are contiguous. No school district involved may have more than 600 enrolled in grades 9-12 unless a waiver is granted by the State Superintendent of Schools.63

The State will make Supplementary Incentive Payments to elementary and high school districts created under Article 11D. These payments will be in the form of a supplementary General State Aid Difference Payment 11D-11(3), a supplementary State Deficit Difference Payment 18-8.3(c), a supplementary State Aid Reimbursement equal to $4,000 for each full time certified employee.

63 Ibid., 11D.
In order to file a petition it must have the signature of at least fifty voters, or 10% of the voters, whichever is less residing within each affected district and be approved and submitted by the boards of each affected district. Submission of the proposition must be requested at a regularly scheduled election for the purpose of voting for or against the dissolution of the named districts.

Contained within the petition the petitioners must define the following:

1. Description of the territory comprising the proposed districts

2. Establish the maximum tax rates for education, operations and maintenance, pupil transportation, and fire and safety, that each district will levy.

3. The way the supplementary State Deficit Difference Payment to be made.
4. How assets and liabilities will be divided between the proposed new districts.\textsuperscript{64}

The petition passes if a majority of voters in each affected district vote in favor of it. If the proposition passes, there will be an election of new Board of Education at the next regularly scheduled election, unless the board is elected at the same election at which the proposition establishing that district passed. The change shall not affect the administration of the school until July 1 following the date the petition was granted. This date may be accelerated or postponed through petition by the boards of each affected district and approval of the Regional Superintendent.

All property taxes extended for any existing bonded indebtedness will stay assigned to property within the boundary of the previous district that incurred the debt.

The teachers having tenure with the districts at the time of their dissolution shall be transferred according to the following criteria:

\textsuperscript{64} Ibid.
1. If the teacher for the preceding five years was employed full-time in grades 9-12, then that teacher shall be transferred to the new high school district.

2. If of the preceding five years, the teacher was employed full-time in grades K-8, then that teacher will transfer to the elementary district.

3. If neither of the above is true, then the teacher is transferred to the district they request.65

Choosing any form of reorganization as a solution to growth and overcrowding necessitates knowledge of the complex individual circumstances that surround any reorganization effort. Reorganization of any type is such a complex decision that the same rules do not apply to any two reorganization situations. However, because of the complexity surrounding reorganization the attractiveness of using it as a solution to the problem is not always readily evident. Therefore, when searching for a solution to growth and overcrowding,

65 Ibid., 7A-12.
reorganization, because of its diverse options, warrants consideration only after it has been studied with regard to all the effects of its implementation.

The only obvious point that stands out time after time in researching Reorganization/Consolidation as a solution option is that there are very seldom any easy answers.66

IN-DISTRICT UTILIZATION OF SPACE

The way a space starved school district uses its available space to solve overcrowding is the most used and least uniform in its implementation of any other solution option. McGuire notes that in any existing school, schedules and space usage are typically rigid and clearly defined.67 Given McGuire's premise, as schools become space poor, building administrators very often are constrained in the way they will use space by the rigidity of past practice. Further, what can be considered as an option for


use of space in one district, for a number of reasons, may not always be considered as an option in another district. Reasons such as crowded, balanced, comfortable, don't lend themselves to precise definition. Crowded in one school system may be comfortable in another. Turning the band room into a classroom and having band before and after school in competition with other extra-curricular activities, though accepted practice in some districts, may not be considered acceptable in another district where many of the students in the band also are active in athletic or art programs. In short, it can be reasoned that In-District Utilization of Space may be limited by the specific values of the individual school district and the creativity of the district's decision makers.

Each district building offers its own unique potential with regard to "freeing up" new space for student use. In establishing an atmosphere conducive to creatively identifying "new" student space in a building, those involved in the identification process should be committed to finding solutions. That is, the only restrictions on the search for efficient utilization of space are those that the Board of Education may have created. There is no place for self-interest in this process. For example, if the Board of Education states that no space other than regular classroom space is sacred, the art teacher
must acknowledge a decision to use the art room for a classroom and provide art class on an itinerant basis. It is with the idea of cooperation of effort in mind that the value of forming a committee made up minimally of a cross section of teachers and administrators will become evident. This committee should be able to generate a plethora of ideas on how to identify space. The result of this process will be an understanding by everyone that any changes made were the process of logical discussion and not personality.\textsuperscript{68}

Literature with regard to school districts practices and policies or experiences in manipulating or reconfiguring its classroom space is extremely limited. This limit of literature is possibly do to the fact that in district utilization of space is a matter of a district's own preference and philosophy. However, based on the previously cited research of McGuire and Weichel and Dennel, several of the most commonly accepted ideas for identifying usable space for classroom purposes are offered in the following paragraphs in an effort to present insight into how space utilization can be at least a part of a viable solution for overcrowding and a basis from which other options might be drawn.

One of the most obvious ways to recapture space is to drop a program and fill the dropped program space with a regular classroom. The drawback is the loss of a program. However, this loss can at times be lessened through creative use of scheduling and personnel. Art and music teachers can become itinerant, thus bringing their class to the students rather than the students to the teacher's classroom. Likewise, special services, which typically have a high cost in space because of low student-to-teacher ratios can be brought to the regular education classroom again freeing up the space in which the special services were originally provided. Special instruction, such as chapter one, special education resource services, gifted instruction, etc. can take place in the regular classroom. Please note the quality of service provided is under intense pressure and therefore the decision to bring services to classrooms must take into account the effect it has on the student's learning.

Gymnasiums, cafeterias, libraries, auditoriums, hallways, etc. also offer options with regard to utilization of space. Unscheduled gymnasium time can be used for study halls or classrooms. Similarly, auditorium space is not normally scheduled for use during school hours. Often times hallway space is overlooked as usable. Schools have used and are using
hallways as computer labs, study halls and for shelving library books thus opening up space that was formally used as computer labs, libraries or study halls for classrooms. Cafeterias can be used during unscheduled times or closed down as a food service center and converted to classrooms. However, lunches must then be "brown bagged" and eaten in the classroom.

Perhaps the simplest and most used method of increasing efficiency in the use of school space is simply to increase class size. In essence, many of the previous examples offered have this same effect. At some point during discussion regarding space use and increasing class size, subjects such as quality of instruction should be addressed. Chapter One of this study offers insight into class size versus effectiveness with regard to classroom instruction.

In multiple building districts, the concept of efficiency in use of building space can be taken a step further by considering efficiency in use of its buildings. That is, reconfiguration of attendance centers and/or changing attendance boundaries.

Solving an overcrowding problem by reconfiguring attendance centers should also include an analysis of the
districts curriculum and/or program needs. Rike and Wendland show that reconfiguring attendance centers can provide for a total change in a district's curricular system.\footnote{Cheryl J. Rike and Gordon E. Wendlund, "We Solved Overcrowding and Boosted Early Learning," \textit{American School Board Journal} vol. 174, (March 1987): p. 38.} This being the case, the Board has the opportunity to sell the reconfiguration to the community by making two points. First, the change will allow for an easing of the overcrowding and second, the change gives the district the opportunity to reassess and bolster its curriculum and overall program. Any district choosing to use this method of dealing with overcrowding should understand that moving children to different attendance centers is a very political action that will evoke emotions from the community.\footnote{Ibid.} If, for example, two K-6 buildings become K-3 and 4-6 buildings, the Board must be prepared to be confronted by parents whose children will now be bused or put in a building that for some other reason they do not want to see their children in. In short, if there is a strong feeling that reconfiguration will be a solution option exercised then the board should take a sound public relations approach in convincing the community that reconfiguration is worth the perceived problems that it might cause. Groundwork should be laid, planning, including the
curriculum, should take place and the public and the teachers should be a part of the decision making process of proposed change from the beginning. The importance of a good public relations approach cannot be overemphasized.\textsuperscript{71}

Just as reconfiguration can cause public relations problems with a community, so too can changing attendance boundaries. Hyland believes that few things are as potentially disruptive in a community as redrawing school district attendance boundaries. Further, redrawing boundaries is one of the most sensitive tasks a school board can face.\textsuperscript{72} Assuming Hyland is correct, it is again, just as with reconfiguration, the responsibility of the Board of Education to embark on a public relations mission to sell internal boundary changes to the community.

When changing attendance boundaries, for the purpose of solving crowding problems it is important to study and consider past and future demographic trends for the purpose of assuring that the numbers that have caused the overcrowding will continue to be maintained. Several factors that should be

\textsuperscript{71} Ibid.

studied by the Board of Education prior to its decision to change attendance boundaries include:

1. Transportation Costs - Can the transportation system handle the changes required? Will more buses/drivers be required? How greatly will routes be affected?

2. Racial Balance - Will the racial balance of the district be upset? How can the plan make any ethnic inequities present better?

3. Resource Equity - Changing attendance boundaries can equalize resources by assuring that some attendance centers are not overcrowded while others have room thereby giving the district the ability to provide each student a fair share of resources.73

The literature seems to indicate that in district utilization of space offers solutions that can have little or a great deal of effect on the school district. Regardless of the effect or impact, district decision makers who address overcrowding problems have a responsibility to consider all the ramifications and alternatives made available by exercising in district utilization of space as a solution option.

73 Ibid.
RENT/LEASE OF NON-DISTRICT OWNED SPACE

The ability of a school district to rent or lease space is set forth in the Illinois School Code. Several sections of the Illinois School Code establish guidelines for leasing or renting under certain situations or circumstances. For the purpose of this study, those sections of the Illinois School Code that enable school districts to rent or lease non-owned property as opposed to those sections enabling a school district to lease or rent their owned property to others were studied.

Article 10, paragraph 22.12 of the Illinois School Code gives school districts the most latitude into its ability to enter into a lease of property for school purposes. 10-22.12 reads as follows:

Lease of property for school purposes. To lease, for a period not exceeding 99 years, any building, rooms, grounds and appurtenances to be used by the district for the use of schools or for school administration purposes; and to pay for the use of such leased property in accordance with the terms of the lease. The board shall not make or renew any lease for a term longer than 10 years, nor alter the terms of any lease whose unexpired term may exceed...
10 years without the vote of 2/3 of the membership board.\textsuperscript{74}

In general terms, the right of the school district to acquire space through a lease agreement is established in the above article and paragraph of the Code. It is important to note that there are no provisions established for paying the terms of the lease, therefore, the financial requirements of the lease must be met by normally acquired operating expenses and/or a .05 levy ability available to school districts for the purpose of leasing buildings. A district's ability to utilize leasing as a solution option is limited by budgetary constraints. An option to gain the ability to raise a district's levy in order to pay for a lease under this section of the code would be to pass a referendum for a rate increase. Situationally, a request for a rate increase (referendum) would put the district in very much the same position it would be in with regard to bonding and building (discussed earlier in this chapter).

Article 10, paragraph 22.27 of the Illinois School Code gives a school district the right to rent space outside of the district for use in the instruction of exceptional children and reads as follows:

\textsuperscript{74} Illinois, \textit{School Code} (1998), art. 10, sec. 22.12.
Schools outside district for exceptional children. To rent suitable facilities outside of the district and maintain classes therein for the instruction of children from any homes for orphans, dependent, abandoned, or maladjusted children as provided in Section 18-3 of this Act; provided that written consent is secured from the school board of the district wherein such facilities and classes are located.75

The value of this article of the code in providing more space is negligible. Because of the uniqueness of the students and the instruction involved, most districts are a part of a co-operative that provides for the program space. 10-22.27 does allow the district to rent space instead of using its own, however, because the parameters restricting the circumstances under which implementation can occur are so restrictive and so specialized the use of 10-22.27 as all or part of a solution option is not practical.

Article 17, paragraph 2.2C of the Illinois School Code gives school districts the ability to levy a tax for leasing educational...
facilities and for temporary relocation expense purposes. 17-2.2C reads as follows:

Tax for leasing educational facilities, and for temporary relocation expense purposes. The school board of any district, except for school boards of districts in municipalities of 500,000 or more, may, by proper resolution levy an annual tax, in addition to any other taxes and not subject to the limitations specified elsewhere in this Article, not to exceed .05% upon the value of the taxable property as equalized or assessed by the Department of Revenue, for the purpose of leasing educational facilities, and, until the school district has repaid to the State all moneys distributed to it for temporary relocation exceed .05% upon the value of the taxable property as equalized or assessed by the Department of Revenue for the purpose of providing for the repayment of moneys distributed for temporary relocation expenses of the school district pursuant to Section 2-3.77.

The tax rate limit specified by this Section with respect to an annual tax levied for the purpose of leasing educational facilities may be increased to .10% upon the approval of a proposition to effect such increase by a majority of the electors voting on that proposition at a regular scheduled election. Such proposition may be initiated by resolution of the school board and shall be certified by the secretary to the proper
election authorities for submission in accordance with the general election law.\textsuperscript{76}

\textsuperscript{76} Ibid., 17-2.2C.

17-2.2C adds to the value of any consideration toward leasing. The fact that through this article a school district may levy 5\% for the purpose of paying for any lease entered into under article 10-22.12 of the code makes leasing an attractive option from a practical perspective. That is, an ability to acquire new space without necessarily having to use regular operating funds is an option that may be attractive to many districts searching for a solution to the stated problem.

In consideration of leasing as an option, there are a number of issues other than location and expense that should be studied. Dempsey, Rancic, and Steinbach warn that there may be legal ramifications involved in leasing that are not readily apparent to school officials. Hiring an attorney who specializes in lease agreements should be a district's first step in exercising its ability to acquire space through leasing. Writing a lease agreement that protects the school district is a priority.
spending the money for an "expert" to formulate the lease agreement amounts to protecting the public interest.77

Further, Stouer believes that leasing is viable and attractive only when care is taken. Care and consideration should be given to making the leased space ready for student habitation. Life, health and fire safety issues as well as aesthetics should be considered prior to entering into the lease. Insist that any necessary changes to the space be made prior to agreement. The lease agreement should also clearly state the required condition of the space when it is vacated. The district should not have to return the space to its original condition when vacated. Care must be taken in fixing the term of the lease.78

10-22.12 of the School Code of Illinois sets forth the limits of any lease agreement that a school district may enter into.79 Those limits are very broad, as such, the school district should


78 Del Stouer, "But Handled With Care, Leasing Can Be A Bonanza," American School Board Journal vol. 177, (October 1990) p. 3

79 Illinois, School Code (1990), art. 10, sec. 22.12.
put a great deal of thought into the limits and terms of the lease.

It would seem that districts should be prepared to spend some money prior to entering a lease agreement. Specifically, in order to entice a lessor into terms the district may want to share some of the costs that are to be incurred in the preparation of the space. Also, attorney's fees, moving expenses, insurance, furniture etc. are all costs incurred above and beyond the actual cost of the lease. It is important to note that in any agreement with a lessor involving maintenance, upkeep or capital outlay for preparation of the space to be leased, no school district health life safety funds can be expended. Health and life safety funds can only be used on district owned space.

An innovative approach to leasing is called lease/purchase financing. Demers identifies lease/purchase agreements as a viable alternative for financing schools. Although not specifically addressed in the Illinois School Code, according to Richard Krase, Grundy County Regional Superintendent of Schools, such agreements would be considered legal in Illinois as

there are precedents for these agreements.\textsuperscript{81} Lease/purchase agreements can be very attractive under certain conditions. For example, a district does not have to pass a referendum to enter into the agreement. The cost of the agreement does not count against a district's debt limitations. A large amount of "front" money is not required in order to acquire the space. There can be an option of voiding the agreement and walking away from it. The advantages of such lease agreements are more attractive to some districts as opposed to others simply because of the unique factors involved with each individual entity. The same holds true for disadvantages of the lease/purchase agreements. For example, compared to outright purchase, the dollar cost of a lease purchase agreement will be greater. This is primarily due to interest costs accrued over the period of the lease.

Based on Demer's research, the evidence to date indicates that lease/purchase agreements are a promising alternative to traditional financing methods of acquiring new space in school districts.\textsuperscript{82} Given the number of school districts with pressing financial needs and the increasing difficulty in getting voters to

\textsuperscript{81} Interview with Richard Krase, Regional Superintendent of Schools, Morris, Illinois, 14 March, 1991.

approve capital development bond issues, lease/purchase agreements have the potential to become a more used solution by school districts that require more space to educate its students.

JOINT FACILITY USE AGREEMENTS

Perhaps the least formally researched method for a school district to acquire space, yet a method that lends itself to creativity in finding a solution for space problems are joint facility use agreements. A large number of school districts, especially those in areas where continued growth is taking place, are set in communities that maintain library districts, park districts, forest preserve districts and the like. Facilities maintained and governed by governmental bodies, as well as private entities can provide several options with regard to joint space usage for a neighbor school district.

The option of borrowing space from another entity is much the same as a lease/rent agreement. The major difference is that no money changes hands. The joint facility use agreement
takes place because of need and goodwill amongst the participants. A school district that would select joint facility use as a part of its solution to overcrowding should be aware that joint use of a facility may involve a great deal of preparation and planning. If the space involved does not come from another school district, the question of state standards for Life Safety are an issue. Students can only be housed in spaces approved by the Regional Superintendent of Schools and the State Board of Education. That approval is partially contingent on the ability to meet life safety standards. Further, if the space to be used is titled to a religious entity, church-state issues must be clarified again with the Regional Superintendent of Schools and the State Board of Education.

Drawbacks to joint facility use agreements should also be anticipated and understood during the preparation stages of setting up such an agreement. It does not seem very practical to consider joint facility use agreement as a long term solution. The lack of long term attractiveness is primarily do to the fact that the school district in essence becomes a guest of the host space owner. As such, a host would, under normal circumstances, not have any interest in signing a long term agreement. Rather, the host usually looks to offer a short term agreement with, in the best case, renewal clauses.
Wills believes that school districts have a responsibility to their taxpayers to search out joint facility use agreements even if housing students is not a problem.\textsuperscript{83} In Wills' particular case, he uses park district facilities to house his kindergarten classes and athletic events. The district does not need the space, rather it makes use of the park district space which is physically superior to its own. Several instances of elementary districts using space in the high school district they feed were found. For example, Minooka Elementary uses space in Minooka High School to house kindergarten students.\textsuperscript{84} Minooka Elementary is suffering from overcrowding.

A creative use of joint facility use agreements was explained by Holmes, who in her research, refers to a group of rapidly growing school districts who pooled money to purchase and move portable classrooms to the district where they were most needed.\textsuperscript{85} The district that provided the ground to place the portables became the current owner. As new space was

\textsuperscript{83} Interview with Arden Wills Superintendent, South Wilmington Elementary School District, South Wilmington, Illinois, 18 January, 1992.

\textsuperscript{84} Minooka Elementary School District 201, April 13, 1992, School Board Minutes, p. 2.

built and other districts involved in the venture exhibited a need for portables, placement was made to help meet the needs of those districts, thus the ownership of the portable changed from districts that no longer needed portables to those that were in need. In continually growing districts the cited examples represented short term solutions to the problem.

Just as in many of the other solution options researched, the creativity of the decision makers of the district played a large part in the usefulness and potential effectiveness of joint facility use agreements.

YEAR ROUND SCHOOL

Scheduling a school or entire district in such a way so as to utilize its available space over a twelve month period as opposed to using the school(s) over the traditional nine month calendar is a solution option that can offer an efficient use of available space. Before further information is provided, it is important to note the difference between year round school and year round schooling. For the purpose of this study, Year Round
School (YRS) was defined as scheduling students according to a 180 day calendar in varying schedules throughout the entire twelve month year. Year Round Schooling was defined as changing student schedules to cover an entire twelve month year; therefore, creating a school day calendar greater than 180 days. Year Round School is an option available for the purpose of efficiently making use of space for students attending school on a traditional schedule of approximately 180 days.

The State of Illinois gives school boards the authority to operate a year round school plan in 10-19.1 of the School Code of Illinois. 10-19 reads as follows:

**Full year School plan.** Any school district may, by resolution of its board, operate one or more schools within the district on a full year school plan approved by the State Board of Education. Any board which operates under this Section shall devise a plan so that a student's required attendance in school shall be for a minimum of 180 days of actual attendance, including not more than 4 institute days, during a 12 month period, but shall not exceed 185 days. Under such plan, no teacher shall be required to teach more than 185 days. A calendar of 180 days may be established with the approval of the State Board of Education.86

Further, the Code provides for the opportunity to receive funds for the purpose of studying the feasibility of a year round school plan in 10-19.2 of the Code. 10-19.2 reads as follows:

**Full year feasibility study-grant-transitional expenditure reimbursement.** Any school district, including special charter districts, may, by resolution of its board, file an application with the State Board of Education and, if approved, receive funds for the purpose of conducting a study of the feasibility of operating one or more schools within the district on a full year school plan pursuant to Section 10-19.1. Such feasibility study shall include, but not limited to, the educational program, building and space needs, administrative and personnel costs, pupil distribution in the district, community attitudes and transportation costs. The board of Education of any district which conducts a feasibility study pursuant to this Section shall submit a final report to the State Board of Education upon completion of the study or within one year after the receipt of funds, whichever occurs first.

School districts seeking State Financial Support to conduct feasibility studies shall file applications with the State Board of Education on forms provided by the State Board. The State Board of Education may grant or deny applications, in whole or in part, and provide the funds necessary to implement approved applications does not exceed the annual appropriation for that purpose.

If, based upon the results of a full year feasibility study, a school district determines that it will operate one or more schools within the district in accordance with Section 10-19.1, the State Board of Education may, pursuant to guidelines established by the State Board, reimburse such district for expenditures resulting from making such transition, provided that no expenditure shall be reimbursed which would have been incurred by a school district in the absence of a changeover to a full year school program.
In the event any funds appropriated for transition reimbursement during any fiscal year are insufficient for that purpose, payment shall be made in the proportion that the total amount of such expenditures bears to the total amount of money available for payment.87

Year round calendars can increase building space by 25-50 percent. An analysis of work done by Glines88, Haney89, and Ballinger90 provided the following methods of rearranging the school calendar to best utilize building space and are indicative of the vast possibilities available in utilization of year round scheduling.

Staggered 45-15: four groups (tracks) of students are rotated through nine-week learning blocks and three-week vacation blocks - one group is always on vacation. Space saving is 33%.

Block 45-15: only one group of students - everyone follows the same nine-week learning and three-week vacation blocks. Space saving is 33%.

87 Ibid., 10-19.2.


Flexible 45-15: nine-week learning and three-week vacation blocks, but with reading and math especially; and other subjects preferably, individualized so that students may jump tracks for special reasons. Space saving is 33%.

Staggered 60-28: similar to the 45-15 except students rotate through three 60-day learning blocks and three 20-day vacation periods, with one of the four groups again always on vacation. Space saving is 33%.

Block 60-20: same as the staggered, except there is only one group, as in the Block 45-15; a Flexible 60-20 is the same concept as the Flexible 45-15.

Staggered, Block, Flexible 90-38: the same as these plans in the 45-15 and 60-20 calendars, except in the 90-38, students attend school for two separated 90-day learning blocks and have two 30-day vacation blocks. Space saving is 33%.

Concept 6: six 40-44 day learning blocks; students attend four of the six (two in succession) and have two separate 40-44 day vacation periods; this plan provides overlapping days or longer school days to reach the 180-day requirement. Space saving is 50%.

Modified Concept 6: The same calendar as Concept 6, except the units are divided into four weeks. Thus a student attends eight weeks followed by four weeks of vacation. Space saving is 50%.

Concept 8: eight six-week terms. Students select, if voluntary, or are assigned, if mandatory six of the eight terms. Space saving is 33%.

Concept 16: 16 three-week terms - students are selected or assigned 12 of the 16.

Multiple Access: a partially Individualized 45-15 plan where students can enter or learn at any three-week interval, with the curriculum in three or nine-week units, or individualized.

Quarter Plan: four 12-week terms (fall, winter, spring, summer) with the students selecting or being
assigned three of the four terms. Space saving is 25%.

Quinmester: five nine-week quinmesters, with students selecting or being assigned four of the five quins. Space saving is 25%.

60-15: three 60-day terms with three 15-day vacations, plus a common all-school summer vacation, and curriculum in modules that can be taught to overlapping, staggered groups. Space saving is 25%.

Orchard: a five-track, 60-15 calendar is featured. Rather than rotate groups of 38 students with their teacher, the entire track class goes on vacation. However, 20 percent of each classroom go on a three-week vacation. A teacher may have 35 students assigned, but only 28 at one time. The teacher retains his or her own room, teaches 225 days, receives commensurate pay, and still has eight weeks of vacation days. The students rotate in and out in groups of seven. Space saving is 25%.

Extended School Year: more than the 188-day calendar, with staggered blocks, such as four 58-day terms and four 15-day vacations. Space saving is variable.

Flexible all Year: school is open 240 days; students can select 180 of the 240, with the curriculum in small self-paced packages to allow for interrupted learning blocks and differentiated vacation periods - one day to several weeks at any time. Space saving is variable.

Personalized Continuous Year: a completely flexible, personalized calendar where students can come and go as desired on a daily basis; the curriculum is totally individualized. Space saving is variable.

Given the number of plans available for year round school, it was necessary for the purpose of this study to not
differentiate any one plan from another. The fact that any one of the plans provide for an increase in usable space was sufficient with regard to solving the stated problem. Therefore, further data presented with regard to year round school will be based upon the generic concept of year round school and not a specific year round school plan.

According to Glines, space is not and should not be the driving force in establishing a YRS (year round school) calendar. In fact, space should be a side benefit and the real benefits from YRS are educational. Glines attitude toward YRS is indicative of the two distinct positions that advocates of YRS have taken. That is, YRS has a primary purpose to enhance a child's education or YRS has a primary purpose of efficiently using space. Within this study, it is obvious that the position that provides the greatest interest is that of most efficient use of building space. However, it is also important to consider the educational values of YRS since all of the benefits should be available to the district so that the total attractiveness of the option can be viewed by the community. Regardless of the position taken, it is generally agreed by the advocates of YRS that all of the benefits of YRS should be communicated to the community. However, in reality,

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cost efficiency may be the final and most important motivator in a community's acceptance of YRS.92

Even if efficiency of space is the primary motivation for YRS, that part of a community or Board of Education whose actions are more motivated by educational growth than monetary efficiency should be considered. If, as Ballinger states, that resistance to YRS stems from a resistance to change,93 then it is important to break down that resistance with as many benefits as can be offered.94 Further, educators and school boards are now realizing that with a space shortage mandatory year round school is no different than mandating a September through June calendar. Either way, some constituents are going to be inconvenienced.95

Regardless of the significant potential of increasing space and the attitude that what really sells year round school are the

95 Ibid.
educational benefits\textsuperscript{96} as of 1988, only 69 of about 15,000 public school districts in this country operate year round schools.\textsuperscript{97} Based on the small percentage of school districts that implement YRS there seems to be drawbacks associated with the year round concept.

In an effort to better understand the issues that ultimately have restrained the implementation of year round schools, a review of research by Gitlin,\textsuperscript{98} Ballinger,\textsuperscript{99} Glines,\textsuperscript{100} and Parrish\textsuperscript{101} provided markedly similar pros and cons with regard to the utilization of YRS. In expanding on this available research, the following insights into the pluses and minuses of year round school are offered as an overview of the benefits


\textsuperscript{100} Don Glines, "Year Round Education: A Philosophy," \textit{Thrust} vol. 16 (May/June 1987): pp. 14-17.

and pitfalls of creating a year round school schedule to solve an overcrowding problem.

Pluses

Based of the schedule chosen, the school district has the opportunity to increase its capacity by as much as 50 percent.

There are several schedule options available to best fit the needs of the district.

There are indications that student memory loss is reduced by shorter albeit more frequent "vacations."

Students' needs may be monitored and served with less disruption. Remediation can occur throughout the year.

By lowering the number of pupils in a building at any one time, there should be a proportionate drop in daily discipline problems, classroom crowding and waiting lines.

Special needs students especially bilingual seen to benefit the most because of less regression during shorter "vacation" periods.

Although data on the pluses presented are not overwhelmingly convincing, the one factor that is indisputable
and singularly makes year round schools a solution option that must be considered is that YRS increases building capacity.

Minuses

Scheduling would be a monumental task especially in a departmentalized Junior High or Senior High setting.

Special education services would be a difficult issue. Most school districts are a part of a special education cooperative. Any minor calendar change can effect all of the other schools in the cooperative.

Registration of students could be a very time consuming and emotional issue. It will not be possible to give every student the track schedule they would want.

Most schools use the summer break to repair and prepare the building for another year of use - this could be lost.

Painting or other major projects would be very difficult to accomplish while school is in session.

Wear and tear on the building would increase while the ability to fix and maintain would decrease.

Teachers under full year contracts would not gain any benefits from the Illinois Teacher's Retirement Fund despite the 25 percent increase in time spent teaching. It is still
considered one year of teaching credit no matter how many days over 180 a teacher works.

Contractual concerns may be profoundly difficult to solve.

In an elementary school district, children may finish their eighth grade education in April and need to wait to begin High School in September while other students could finish in late August and would immediately begin High School.

School functions and organizations would lack continuity.

Parents may find that their high school student is on a completely different schedule than their elementary school student.

There would be a major impact on community organizations: Scouts, little league, park districts, church activities, etc.

In a growing district, eventually additional buildings will be needed. Why disrupt to put off the inevitable?

Though more students could be housed under a year round school schedule, the overall cost, both monetary and non-monitory, to the community must be weighed by the district before making a decision to chose the YRS solution option.
In the districts that manifested a need for new facilities, year round scheduling can be a very viable solution option, however, given the pluses and the minuses involved, the research of literature seems to bear out the attitude that successful implementation of a year round schedule takes place in an environment where the educational program enhancement is the primary issue and creation of new space is just a side benefit.¹⁰²

**MULTIPLE SHIFTING**

The authority to implement a schedule that allows for more than one session of four or more clock hours to take place in one day is set forth in paragraph 18-8f of the Illinois School Code and reads as follows:

18-8f. A session of four or more clock hours may be counted as a day of attendance upon certification by the regional superintendent, and approved by the State Superintendent of Education to the extent that the district has been forced to use daily multiple sessions.¹⁰³


¹⁰³ Illinois, School Code (1990) art. 18, sec. 8f.
Most multiple shift systems are made up of exclusive schedules; i.e. the first group scheduled completes its day prior to the arrival of the next scheduled group. There are models which allow for overlapping shifts, in which more than one scheduled group is on school grounds at given times.

In an exclusive schedule, one group of students attends, e.g., from 7:40 a.m. to 11:40 a.m., and a second group attends from 12:30 p.m. to 4:30 p.m. etc. It is possible to add more shifts if desirable. The main advantage of this type of multiple shift system is that it allows for a doubling or tripling, etc., of usable student space. The monetary cost of this increase in space is very low when compared to the cost of building new space.

By contrast, an overlapping system that permits two or more scheduled groups on campus at one time does not offer the same advantage of space usage and for that reason was not studied further.

Because two or more groups of pupils use a single set of facilities under a multiple shift schedule, capital costs incurred through building can be minimized. Leo-Rhynie calculated that
double shift schooling permitted a 32% saving.\textsuperscript{104} Kelly, estimated savings at 46%.\textsuperscript{105} There seems to be little doubt that multiple shift schools are very cost efficient.

When calculating cost efficiency it should be recognized that multiple shift schools commonly incur higher maintenance costs because of their more intensive use. Also, multiple shift schools commonly need more storeroom, conference and office space as well as other centralized facilities. However, even after allowances for these factors, the savings are considerable. The real question that a board of education must answer before going to a multiple shift schedule is, is it worth the trade off of a probable loss of quality in the child's education?

Fowkes considers multiple shifting as a costly way to save money. He asserted that the educational costs incurred were severe.\textsuperscript{106} Merrill cited a paucity of data with regard to the difference of a child's education in a multiple shift system as

\textsuperscript{104} E. Leo-Rhynie, (1981) "Report on the Shift System in Jamaican Schools" (Mona, University of the West Indies, School of Education).

\textsuperscript{105} Michael Kelly (Chairman) (1986) "The Provision of Education for All: final report of the Education Reform Implementation Project." (Lukasa, University of Zambia, School of Education).

opposed to a standard schedule. He also suggested that the lack of empirical evidence on the quality of the education in a multiple shift system was the result of the fact that multiple shifts were almost always used as a short term solution to a crisis situation. The fact that a continued, or long term use of multiple shifts did not take place may be indicative of the severity of problems (including program integrity) created through the implementation of multiple shifts. Further, because of the monetary incentive in using multiple shifts, if the district saw no academic disadvantages, then multiple shifts would more than likely be more common. The lesser quality of education argument with regard to multiple shifts is enhanced by the fact that all the multiple shifts data found and studied in this dissertation were based on a school day that was significantly shorter in duration that the normal or standard single shift day. As cited, the Illinois School Code allows for a 20% shorter instructional day in a multiple shift schedule.

Shortened school day notwithstanding, multiple shift schedules by nature force districts to also cut back on extracurricular activities. The primary reason for such a cut back is equal access. It is very difficult to provide for a program of

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extra-curricular activities that would be equally accessible to all shifts in a multiple shift district. Edgar cites the following as the most commonly faced problems in maintaining an extra-curricular program in a multiple shift district.

Inter-school's sports activities must take place either without the support of the entire school or students must be excused from class to attend.

Scheduling is rigid since opponent schools are not usually on a similar schedule.

In order to represent the school, athletes on afternoon shift either have to miss class or be transferred to the morning shift for the duration of the season. This creates overcrowding in the morning shift and the change could very possibly affect the academic work of the students involved.

Clubs have to be duplicated on both shifts.108

Rather than to be confronted by the problems brought on by extra-curricular activities in multiple shift systems, many districts drop the extra-curricular activities. In many cases, districts implement multiple shifting as a means to get through a

financial crisis. In these cases, it would be reasonable to assume that the district's financial position could have a great deal to do with its willingness to cut the extra-curricular programs and thereby save money while avoiding difficult equal access problems. Regardless of the reasons, the review of literature indicates that multiple shifts can also have a negative impact on extra-curricular activities.

Even considering the lack of data that was available, it was found, given the information presented, that multiple shifts can be a way to maximize use of school space while increasing a school district's cost-effectiveness. However, it was also found that there are a number of negative side effects inherent to multiple shifts, not only in the academic areas but also in the extra-curricular and personnel areas.
Chapter Three

Restatement of the Purpose

Several school districts in Illinois are being impacted by sudden and unprecedented growth. The most common long term solution exercised to solve the overcrowding problems caused by this growth has been to incur long term debt for the purpose of building new classroom space. Although building is a viable and often used solution it is very expensive. For any number of reasons taxpayers have become less and less willing to voluntarily pay higher real estate taxes. Therefore, passing a building referendum and building new classrooms has also become much more difficult to do. Because of the difficulty of passing a referendum school districts must look for as many
options as possible in order to become less reliant on the costly bonding and building solution. The purpose of this study is to identify and study all the various solution options available including bonding and building and to offer a working knowledge of those options by analyzing if and how they have been used by other school districts.

**Redefinition of the Sample**

The initial pool from which the sample was generated was made up of all school districts in the State of Illinois. This pool was then analyzed as to student population growth over an identified four year period (July 1, 1986 to June 30, 1990). All school districts that did not show a student growth rate of ten percent or more over the four years studied were removed from the pool. The remaining districts then made up a pool of all school districts in Illinois that had grown in student population by at least ten percent over the four year study period. Table 1 shows the sample pool make up with a 10% growth rate.
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|   |   |   |   |   |   |   |   |   |<br />
|---|---|---|---|---|---|---|---|---|---|
| 4 | 2778 | 5336 | 1027 | 1539 | 3805 | 6875 | 3870 | 80.68 |
| 5 | 1859 | 1715 |       |       | 1859 | 1715 | 656  | 61.94 |
| 6 | 300  | 459  |       |       | 300  | 459  | 159  | 53.80 |
| 7 | 179  | 270  |       |       | 179  | 270  | 91   | 58.83 |
| 8 | 468  | 676  |       |       | 468  | 676  | 216  | 46.95 |
| 9 | 1841 | 1513 |       |       | 1841 | 1513 | 472  | 45.34 |
| 10| 412  | 598  |       |       | 412  | 598  | 186  | 45.14 |
| 11| 2680 | 3754 |       |       | 2680 | 3754 | 1074 | 48.07 |
| 12| 499  | 771  | 259   | 286   | 758  | 1857 | 299  | 39.44 |
| 13| 578  | 788  |       |       | 578  | 788  | 218  | 38.24 |
| C | 30   | 41   |       |       | 30   | 41   | 11   | 36.66 |
| D | 36   | 49   |       |       | 36   | 49   | 13   | 36.11 |
| 14| 2883 | 2710 |       |       | 2883 | 2710 | 767  | 35.29 |
| 15| 3251 | 4373 |       |       | 3251 | 4373 | 1122 | 34.51 |
| 16| 2632 | 3517 |       |       | 2632 | 3517 | 885  | 35.62 |
| 17| 1832 | 2430 |       |       | 1832 | 2430 | 598  | 32.64 |
| 18| 535  | 709  |       |       | 535  | 709  | 174  | 32.52 |
| 19| 195  | 257  |       |       | 195  | 257  | 62   | 31.79 |
| 20| 368  | 482  |       |       | 368  | 482  | 114  | 30.97 |
| 21| 1987 | 2830 | 1017  | 997   | 2924 | 3827 | 903  | 38.80 |
| 22| 1924 | 2514 |       |       | 1924 | 2514 | 590  | 38.66 |
| 23| 238  | 309  |       |       | 238  | 309  | 71   | 29.83 |
| 24| 1521 | 1969 |       |       | 1521 | 1969 | 448  | 29.45 |
| 25| 365  | 472  |       |       | 365  | 472  | 187  | 29.31 |
| 26| 212  | 225  | 111   | 186   | 323  | 411  | 88   | 27.24 |
| E | 56   | 71   |       |       | 56   | 71   | 15   | 26.78 |
| 27| 307  | 389  |       |       | 307  | 389  | 82   | 26.71 |
| 28| 653  | 833  | 22    | 18    | 675  | 851  | 176  | 26.87 |
| 29| 720  | 907  |       |       | 720  | 907  | 187  | 25.97 |
| 30| 954  | 1266 | 498   | 546   | 1444 | 1812 | 368  | 25.40 |
| F | 118  | 148  |       |       | 118  | 148  | 30   | 25.42 |
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| 32| 600  | 749  |       |       | 600  | 749  | 149  | 24.83 |
| 33| 1566 | 1954 |       |       | 1566 | 1954 | 388  | 24.77 |
| 34| 492  | 689  |       |       | 492  | 689  | 117  | 25.78 |
| 35| 26   | 32   |       |       | 26   | 32   | 6    | 23.87 |
| 36| 885  | 1889 |       |       | 885  | 1889 | 364  | 23.65 |
| 37| 261  | 321  |       |       | 261  | 321  | 60   | 22.90 |
| 38| 209  | 257  |       |       | 209  | 257  | 48   | 22.96 |
| 39| 1393 | 1712 |       |       | 1393 | 1712 | 319  | 22.90 |
| 40| 4218 | 5183 |       |       | 4218 | 5183 | 965  | 22.87 |
| 41| 1210 | 1481 |       |       | 1210 | 1481 | 271  | 22.39 |
| 42| 2933 | 3584 |       |       | 2933 | 3584 | 651  | 22.19 |
| 43| 886  | 1082 |       |       | 886  | 1082 | 196  | 22.12 |
| 44| 520  | 634  |       |       | 520  | 634  | 114  | 21.92 |
| 45| 1217 | 1483 |       |       | 1217 | 1483 | 266  | 21.85 |
| 46| 762  | 1832 | 416   | 399   | 1178 | 1431 | 253  | 35.43 |
| 47| 1126 | 1366 |       |       | 1126 | 1366 | 240  | 21.31 |
| 48| 190  | 230  |       |       | 190  | 230  | 40   | 21.85 |
| 49| 582  | 704  |       |       | 582  | 704  | 122  | 28.96 |
| 50| 880  | 1059 |       |       | 880  | 1059 | 179  | 28.34 |
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Sample pool reflecting Illinois school districts with a growth in excess of 18% during the study period
The next step in the identification of the sample involved contacting these growth districts at random to determine what minimum percent of growth was necessary to cause the district to consider itself overcrowded to the point that action had to be taken. The end result was a determination that a growth rate of twenty-five percent or more over a four-year period was necessary before school districts were negatively impacted to the point that remedial action needed to be considered. Therefore the initial sample was established as all school districts that had endured a twenty-five percent increase in student growth over the four-year study period. This initial sample group was made up of thirty-eight school districts. Table 2 shows the make up of the sample after this step.

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107
All Illinois Public School Districts that grew at a rate of 25% or more between July 1, 1986 and June 30, 1990

The final sample was determined by interviewing the superintendents or the designees of all thirty eight school districts in an effort to identify those districts that already had to acknowledge and address the growth and overcrowding issue or who were in the process of addressing the issue of growth.
and overcrowding. The final sample became the group of thirty one school districts that remained. Table 3 is the final sample.

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The seven districts removed from the final sample are identified as A - G in Table 2 and were removed for one or more of the following reasons:

1. Growth was a product of reorganization and as such there were no overcrowding issues.

2. Growth was not a problem because the district suffered from declining enrollment in the past and the new students simply filled the previously vacated space.

3. Adequate space was still available.

Tables 1, 2, 3, show the progression of the sample after each step of the determination process. As can be seen in Appendix G the final sample became a group of school districts that is with rare exception suburban in nature.
The findings in this chapter are organized and presented in nine sections. Section I presents summary data with regard to the amount of planning or lead time the sample districts had to prepare for growth. Sections II-VIII provide an analysis of the sample districts' use of the identified individual solution options. Section IX presents a listing and analysis of proposed additional solution options that were offered by the spokesmen of the sample districts as additions to the solution options presented in Chapter One of this study.

Section I

Lead Time

Upon initial analysis one of the more perplexing findings to come from this research was that most (61%) of the districts studied reported that they had two years or less in which to prepare for the growth that so profoundly impacted them. Only 16% of the districts reported as having four or more years of lead time while 23% acknowledged a two to four year period of preparation. Given the logistics of creating a new housing development it would seem that a lead time of only two years would be the exception rather than the rule. The fact that in most counties and municipalities in Illinois developers must gain approval for development from a planning commission or some
other type of municipal governance, roads must be built, code requirements met, etc., would lead an observer to believe that only two years of public knowledge prior to impact from a housing development would be very nearly impossible. Also, not taken into consideration is that residences must be built, sold and occupied. Initially, the conclusion may be drawn that the affected districts would have to have had "their heads buried in the sand" in order to have had only a one to two year period in which to ready themselves for the impact of growth. In consideration of the fact that school district Boards of Education are made up of a varying diversity of members and that the school district employs an administrative and professional staff of well educated professionals it simply did not seem reasonable to conclude that a school district could be so quickly yet unknowingly impacted by growth. In consideration of this quandary a concerted effort was made to ascertain the reasons for the predominance of such a short preparation period. As a result of these efforts several factors were identified that did add clarity to this situation.

The first realization arrived at as a result of more in depth study was that there are several unique and extenuating circumstances "out there" that could make it very easy, as in this case, to come an erroneous conclusion. Even given what
turned out to be a fairly homogeneous sample it is important to be cognizant of the fact that every school district and community has its own set of unique circumstances that could force a common problem to be treated and solved differently given those unique circumstances. Just as solutions may be unique so, too, in many cases are the reasons that caused the problem to manifest itself. A good example of the unique circumstances that can lead to a school district becoming overcrowded is the school district in which growth was due to problems in the community's parochial schools. As a result of clerical and administrative changes and the subsequent changes in the parochial school's policies and tuition charges there was a mass exodus from the parochial school to the public school. In this specific case there was little or no lead time in which the affected public school could prepare for the impact of the growth that added thirty percent to the district's student population.

Some type of reorganization provided the impetus for growth in a small number of the sample districts. However, in those cases where some type of district reorganization took place and the district remained in the sample the reorganization did in fact cause overcrowding. In these cases the districts were aware that there would be space problems and a plan to
solve the problem was a part of the reorganization process. Reorganization, unlike a new housing development, can normally be set up, voted on and implemented in a period of two years or less. Therefore, in these cases a one to two year preparation period would in fact be reasonable.

Several districts limited to two or fewer years of preparation reluctantly admitted that they had used poor judgement or were the recipients of either bad or falsified information from which they made judgements that were in retrospect unrealistic. Instances of districts making building plans and completing these plans only to find that the growth had been underestimated were not uncommon. For a myriad of reasons, political and otherwise, information with regard to growth in a community was in many instances believed to have been hidden from the public or in terms most used by the spokespersons of the districts "covered up." Inferences of conflict of interest, collusion and lack of concern for the children on the part of the power structure of the municipalities were very common in discussions with school district administrators concerning the one to two year preparation time. Whether these comments by the school district administrators were meant to pass the blame on or to avoid any criticism for not having been more insightful, thus benefiting from more
preparation time, could not be ascertained. Regardless, it became obvious that in several instances the communications and working relationships between the administrators of municipalities and the administrators of school districts left a great deal to be desired.

In two instances the district administrators interviewed openly admitted to being ill prepared or, in the words of one hapless superintendent, "oblivious" as to what was happening before his eyes. During a similar discussion with another district's superintendent the lack of insight on the part of the Board of Education was also cited. With regard to the role of the Board of Education a recently hired superintendent was astonished to find his new district was severely overcrowded with more growth imminent. The issue of growth and overcrowding had not been raised with him anytime during the interview process or in any other subsequent communications. Although he was pleased to have been hired, he confided that he was astonished at the Board of Education's lack of concern for the educational problems that were being caused by the district's growth. Because of this lack of concern or at least ignorance on the part of the Board of Education a one to two year preparation time would have been a luxury to the new superintendent.
To add final clarity as to why so many of the sample districts ended up with only a short one to two year period in which to plan for growth it must be noted that in a number of the districts new residential growth did occur at such a pace that one to two years was in fact the most time the district could have had to prepare. In one specific instance a developer came to the city council with a request to have his recently acquired property annexed into the municipality. The council expressed concern over the cost to extend sewer and water lines to the property in question. The developer offered to extend the lines at his own expense. The offer was accepted, the land annexed and within one year over seventy houses were built with a significant number being occupied. Although this instance was not the rule it is indicative of what can happen.

The school districts that had either two to four years or four or more years of preparation time were all uniform with regard to the reasons and logic that afforded them the benefit of an appropriate amount of planning time. In the two to four year group Board of Education and citizen involvement in the awareness and planning stages of acknowledging and solving the problem were mentioned by each district in the group. Approximately fifty percent of the districts with only one to two
years of planning cited any significant involvement by the community in their attempt to solve the problem hurriedly. It could logically be assumed that individual district differences and unique situations notwithstanding, the more community involvement there is in a school district the more likely it would be for the district to become knowledgeable of growth potential at the earliest possible opportunity.

In those districts that had more than four years in which to plan all but one have either been considered a growth district for a long period of time or are adjacent to a growth district so its fate was considered imminent. For the most part solving the problem of growth and overcrowding is considered an ongoing process and the superintendent and school board have the process that works for that community well in place. For these districts it was not uncommon to have parents and residents of the school district attending school board meetings and requesting that the districts show foresight and address the issue well in advance rather than to have the district go to the community to ask for assistance in solving the coming problem. This attitude is probably best explained by the old real estate adage that property value maintenance and growth are most affected by the quality of the schools and the sewers. In a rapidly developing community property owners cannot afford a
poor or overcrowded school system if they want to protect the value of their property and the viability of an emerging community.

The interesting exception to the scenario presented by the group of districts with four or more years of planning time was the district whose superintendent was a long term member of the planning commission in the city where his district was located. Membership on such a decision making body not only allowed the superintendent to be knowledgeable well in advance of any potential growth but it also afforded an opportunity to address appropriate school district concerns. The superintendent did acknowledge the issue of conflict of interest and cited several situations where he stepped down from his seat, or abstained from voting. However, he did mention that he never hesitated to state the school district's position whether it was from the chair of the commission or as an audience member. Further, it was related that simply by virtue of membership in the planning commission he was considered an insider and was consulted as to his or his district's interests prior to public recognition of an issue. This situation would seem to be very beneficial to any district involved in this study.
Upon final analysis it would seem that in those districts where only one to two years of planning time was available at least half could have been more aware or better prepared. In the remainder of the districts individual circumstances, however differing, did not afford the opportunity for any more than the one or two years of planning. In those districts where no indications of circumstances that would account for the district's short one to two year planning time the reasons for not identifying the problem earlier were unclear. It was apparent that in those districts where there was a more lengthy planning time there also was a great deal more community involvement in the school system.

Section II

Bonding and Building

As expected, all of the sample districts planned to use bonding and building as a solution or at least part of a more comprehensive solution to the problem of growth and overcrowding. No district indicated any plan to solve the problem that did not consider bonding and building. What was unexpected, however, was the number of districts that failed to acknowledge or recognize any solution option as their primary means to address the problem other than bonding and building.
Thirty-eight percent (12 districts) of the sample made no initial formal attempt to address the problem in any way other than building new space. This is not to say that certain other options were not eventually utilized (e.g., in-district utilization of space) or considered, rather, initially there was no formal district-wide attempt to exercise any other alternative. The other solution options that were utilized were done so informally, in effect, to get by temporarily until the bonding/building option could be implemented. As such, the other "temporary" solution options were never really seriously considered. The outlook toward the solution options other than bonding/building changed as the districts became aware that the bonding/building option was not being accepted by the community.

In those districts that decided to use bonding and building only as a solution option, seven districts had their referenda fail at least once and as many as four times. It would seem that in many of these districts the decision makers could have made attempts to adjust their plan of attack and create a new plan or at least adjust their original plan. When confronted with this type of questioning district superintendents or their designees cited several rationales for their one dimensional solutions. Some of the more sensible and understandable reasons given by the spokespersons of the sample districts for exhibiting such
persistence in staying with bonding and building can be summed up in the following interpretation: in essence, no matter what the case, because of the pressure being placed on the community by so many new homes being built the bottom line is that the school will eventually have to expand its facilities anyway. Given the fact that the top five districts that expressed this attitude have grown at a rate of 40% or more over the period of this study, it would seem reasonable to believe that their growth rate was so great and so fast that a sense of urgency forced the district to go to the bottom line and immediately proceed from there. However, not having walked in their shoes it is difficult, albeit not impossible, to rationalize how continued failure did not prompt some type of adjusted action. Yet spokesmen for these five districts were adamant in their feelings that given their extreme growth over a short period of time any short term temporary solutions would not meet the district's needs.

An even more difficult position to understand comes from those districts that refused to openly recognize other solution options because the Boards of Education have taken some variation of the attitude that the community can either pass a referendum or suffer the consequences. In 16% of the sample this was the prevalent attitude. Comments similar to "the board
will not tolerate any but the right solution," or "when the parents finally get fed up with the conditions they will pass the referendum," were common place in this group. These types of comments were indicative of the rigidity exhibited by many of the spokesmen of the sample districts in their efforts to solve the stated problem.

An extreme example of this rigidity of attitude was a district in the sample whose Board of Education refused to acknowledge any viable solution to the overcrowding problem on the basis that the taxpayers were burdened enough and should not have to pay anymore taxes to build a new school. In this case a group of parents brought suit against the district. As a result of the suit being filed the Board of Education placed a building referendum on the ballot at the next appropriate election. The referendum passed and the new school is in the process of being built.

Not all districts were so entrenched in their attitudes. Sixty-eight percent (19 districts) of the sample districts openly utilized or planned to utilize at least one or more of the other solution options along with bonding and building. The other options that were chosen were based on the particular
demographics of the district and/or the competence and creativity of the district’s decision makers.

In the fastest growing districts the solutions seemed to compound. That is, multiple solutions were offered to cover the multiple manifestations of the problem. For example, at least six districts were growing so fast that building was inevitable. Just as inevitable was the fact that the district was going to continue to grow at close to the same rate for the foreseeable future. Where this kind of growth took place the districts were reaching the point where they no sooner completed a building project than they immediately had to start to deal with the problem again. This process became continual. The districts were forced to identify secondary solutions in order to address the problem prior to the new building being occupied. They, therefore, were forced to address the problem which became cyclical in nature with different solutions dependent on where in the cycle the problem was manifesting itself most.

Other districts that chose to attempt to solve the problem with a combination of solution options expressed the attitude that any and every resource would be studied and if appropriate used to solve the problem. In several of these districts a calculated and methodical approach was very effective. An
interesting perspective offered by the majority of these districts was that after implementation of some of the other solution options, the voting public was anxious to pass a referendum and build a school rather than to live with the changes caused by a less expensive, more difficult solution to live with. For example, it was found in this study that multiple shifting had solved the problem for less monetary cost than bonding/building; however, multiple shifting has caused a great deal of disruption in family schedules and lifestyles.

Even though one hundred percent of the sample elected to choose bonding and building as their solution option or part of their solution option it should be made very clear that this option is not a panacea. Several factors related to the bonding and building option can cause a district a great deal of consternation and in many cases create a whole new set of problems. It was not uncommon during the course of this project to be made aware that certain of the sample districts had been impacted by growth over a number of years. Of those districts that have been impacted by growth and overcrowding over a number of years there is a possibility that those same districts will not have the ability to go far enough into debt to build enough classrooms. That is, in a continual growth situation, a district may have to build buildings so quickly that it
cannot pay for a prior building before the next one is needed, thereby accumulating debt to the extent that the district has reached its debt limitation and no longer has the ability to borrow. For clarification purposes debt limitation in school districts is explained under bonding and building in Chapter Two of this study. It was common knowledge among school superintendents in the sample that it is very difficult to acquire adequate dollars and financially manage a school district that has the preponderance of its equalized assessed valuation coming from residential properties. This concept becomes clear in any district that must enter into debt for the purpose of completing any high cost project. Residential properties in districts without high levy limits in the building or education funds simply do not provide the tax base required to pay for the cost of the impact they cause on a school district. A high levy limit in the building or education funds can help to overcome this problem in the school district's operating funds. However, because limits of bonded indebtedness are a matter of law and cannot be changed locally, through a referendum or otherwise, a school district may not have the ability to enter into debt for any purpose, even if a referendum is passed, because the district's debt limit has been reached. The inability to increase its debt limit was a concern in four of the sample districts. Very simply stated and with rare exceptions residential property
generates more expenses for a school district than it does income.

Other negative factors are also associated with bonding and building. With the exception of reorganization/consolidation none of the other solution options require voter approval and no other solution option takes as long to implement from start to finish as does bonding and building. Also, in order to get the most out of this solution option it was found that the spokesmen for the sample districts believed that many professionals and individuals needed to be involved in the planning process. Further, this planning process required a significant amount of effort in that a great deal of information was generated and that information needed to be studied and acted upon.

Even given the assumption that an impacted district does have the ability to enter into sufficient debt and does get permission from the community to raise taxes for the purpose of repayment of the debt, there are still situations where new problems are created that may very well cause as much dilemma as overcrowding. Case in point are the four sample districts that in the event that they pass a building referendum must also pass a referendum for a rate increase in the education fund, the building fund, or both. In solving the problem of growth and
overcrowding through the use of bonding and building the districts also have been forced to find resources that will allow them to staff and maintain the new classroom space. In one instance the district was unable to utilize a new building addition because it did not have the money to heat or maintain it. The reaction by the community was understandably hostile. This poor planning also exemplifies the many instances that have surfaced where the ability or competence of the decision makers must be questioned. A simple solution in one district may not be the same in another district.

Four of the more sound and enlightened plans created to best use bonding and building to relieve overcrowding are offered in an effort to show the importance of manipulating any of the solution options for the best interest of the school district and the community.

1. In this instance the school district is making an effort to create a situation in which it would be very difficult for the voters to turn down a building referendum. The enhancement of the attractiveness of bonding and building is being done by working with the local city government to increase impact fees and to access Tax Increment Financing dollars in order to defray the future building cost. The plan is to accumulate, through the
reception and subsequent build up of impact fees and the promise of Tax Increment Financing dollars, a substantial pool of money equal to one-fourth to one-half of the cost of the building project. Once that goal is reached a referendum will be offered for a building project. The incentive to the voter will be that the identified accumulated money will only be available if the taxpayers pass the referendum. If the referendum fails, the Tax Increment Financing dollars will be forever lost and the impact fees will not be available since they are to be used only for capital development. Certainly, there is an element of risk in this plan but that risk is nowhere near the risk involved in simply asking the voters to pass a referendum in the same community when no incentives are being offered. It should be noted that there is a trade-off involved allowing access to the Tax Increment Financing dollars. The trade-off is that the new school be available on non-scheduled evenings for community use. It would seem that this trade-off would also add to the incentives available to enhance the passage of the building referendum or the bonding and building solution.

2. In the second example the school district took a very proactive political role to convince the local community government to protect the interest of the school district, and thus the community itself, when annexing new property into the
municipality. As a result of the dialog between the school representatives and city government representatives there were donations of land, money, playground equipment, etc. above and beyond the already established School Site Donation ordinance fees. Although these gifts were unsolicited, there seemed to be little doubt that the gifts were the product of the pressure and support offered by the community. Aside from the gifts that helped to lessen the cost of building and the subsequent need for bonding the taxpayers of the district also benefitted from an attitude or posture that saw the community at large rush to the defense of "their" school. As cited many times previously, community involvement seems to be an indicator of success when dealing with many of the problems that a school district encounters.

3. This example involves a district that grew initially because of an annexation. However, the district continued to grow as a result of an influx of new residents and subsequent community growth. In this case the district anticipated the growth and funneled all of the reorganization incentive money paid to it by the state into an account earmarked for building purposes. As explained in Chapter Two of this study the state offers a significant amount of money to those districts that reorganize. In some cases this incentive money is needed as
seed money to ease any financial burden that may occur because of the reorganization. In this case there was no burden. The tax base was broad based and large and the salary structures of the two districts were similar. The result of the district being able to save the reorganization incentive money was an ability by the Board of Education to use that reorganization money to defray close to one half of the cost of adding rooms to the junior high building. The taxpayers, therefore, only had to approve bonds for one half of the cost of the new space. As simple as this scenario may sound, it could not have taken place without a thorough understanding of the reorganization process and its benefits and a great deal of research and long range planning by the district's decision makers.

4. Like the previous three examples, this example also involves an accumulation of money for the purpose of defraying building costs and the bonding required to pay those costs. This particular district suffered from a declining enrollment in the late seventies and early eighties. As a result, three schools were closed. The closed schools were old and hard to maintain. Even though the superintendent and the board felt that the district would recover to its original population and even get larger, they decided to sell the closed schools. The decision to
sell the schools was based on the fact that the schools were situated on very valuable real estate. The result was the district "unloading" three small, hard to maintain schools for a very substantial sum of money. Part of that money from the sale was used to buy two relatively inexpensive pieces of land. The remainder of the money was placed in the bank and earmarked for building expansion purposes. The student population did turn around in the mid to late eighties. The district then was able to use the leftover money from the sale of the old schools to help build and to accommodate the new and the anticipated future growth of the district at very little cost to the taxpayers.

Obviously these four examples which were found in this study do not represent the best way to utilize bonding and building as a solution to growth and overcrowding in every district. They are, however, indicative of the way that competent, hard working decision makers can prepare for a problem and mold a solution that is in the best interest of their school district and community.

In the final analysis of the use of bonding and building as a solution option by those districts making up the sample, it was found that bonding and building is legal in Illinois and has been used to solve the problem. Also, bonding and building was in
fact the solution option of choice. It also became very clear
that this solution option is much more complex than it would
seem. A district choosing bonding and building must thoroughly
think through the effects of this solution on the overall financial
stability of the district. Further, this solution requires a great
deal planning and preparation. Informing the public, passing a
referendum and putting in the time and effort necessary to see
to it that the new building meets the needs and the
requirements of the community and the district requires a
tremendous amount of time, resources and energy.

It was also evident that in some cases, particularly those
in which a district is being impacted by significant and continual
long term growth, that bonding and building may very well be
the only ultimate long term solution.

Section III

Reorganization/Consolidation

When the sample districts were questioned as to their
consideration of reorganization methods as solution options, the
most common response was that reorganization of any type was
not viable given the demographics of the sample district or the
surrounding districts. Thirty-nine percent of the sample districts
conveyed the lack of viability response. Not all of those districts, however, cited the same combination of reasons as to why reorganization/consolidation would not be appropriate. The basic reasons as to why a district found reorganization/consolidation as an inappropriate solution option for them are listed in the following paragraphs. Any one of the reasons is sufficient to negate the effectiveness of reorganization/consolidation; however, it was not uncommon to have a district cite more than one reason for its rejection of the reorganization/consolidation solution option.

1. As seen in Appendix G all but four of the sample districts are relatively close to or adjacent to each other. If one can assume that school population growth is a reasonable indicator of general population growth in any particular area it could further be assumed that school districts in the North and West suburban Chicago collar county area are likely to be affected by significant growth. Given the suburban location of most of the sample districts substantiation of the premise that most of sample districts are in areas that are generally growing in population should not be difficult. As a logical progression it would seem that most of the sample districts are situated in areas that are not only growing but also adjacent to areas that are growing. The fact of the matter is that those districts in the
sample that rejected reorganization did so for the most part because their neighbors were also growing and in essence, were also being impacted to some degree by growth. Given the nature of the stated problem it would serve little or no purpose to reorganize with a district that could not provide the resources (space) necessary with which the problem could be solved.

2. In the more rural districts of the sample, there was a concern for the problems that could arise out of an extension of current district boundaries. In one specific sample district, reorganization with any of the adjacent districts that could have in theory offered an increase in space would have extended the district boundaries to such an extent that transportation of pupils would have caused a problem. The area of the reorganized district would have been such that students would have been forced to spend in excess of one hour on the bus. Although there is no substantiating research anyone who has ever been responsible for transporting students to and from school knows that after sixty minutes of riding time on a bus it is likely that the proportion of discipline problems to minutes increases significantly. Therefore, most school districts will endure untold hardships rather than to face the onslaught of problems that arise out of bus routes that require an hour or more to complete.
3. Financial considerations also gave rise to a lack of expected success or desirability of the reorganization/consolidation solution option. It is of the utmost importance to consider thoroughly the financial ramifications of any type of reorganization process. It would be entirely possible for a district to undergo reorganization and as a result acquire new space. The result could very well be a solution to overcrowding. However, if in the process of using reorganization to solve the problem the district has created a situation that causes significant financial distress then the solution, however effective for the stated problem, is not worthwhile because of the financial problem(s) it creates. For example, if an annexing district with a high equalized assessed valuation per pupil annexed a district with a low equalized assessed valuation per pupil the annexing district's equalized assessed valuation per pupil will eventually drop. Although there is a possibility that general state aid will make up for part of the loss the fact remains that less equalized assessed valuation per pupil translates into less dollars to educate students on a per capita basis.

4. Another reason cited by the sample for rejecting reorganization/consolidation was that logistically, any
reorganization can become a nightmare. The fact that Illinois' school districts are organized as either elementary, secondary or unit districts can cause a set of circumstances whereby a district's willingness to reorganize can be controlled by the voters of a third party district. In reality there are several situations, hypothetical or otherwise, that can illustrate the third party in control concept. One such case could be an elementary district in need of space may wish to attach to a unit district that has an abundance of open classroom space. Before this attachment can take place the elementary district must detach from the high school district that it feeds. The district must detach because the unit district that has space requires by law that all of its students attend the district in grades K-12. If the high school that is being fed by the elementary district does not want to lose those students and the equalized assessed valuation that follows them, then it is likely that the high school will mount a campaign to block the detachment. Many variations of this example could be drawn.

Those district spokesmen who found reorganization/consolidation unacceptable for logistic reasons felt that it was important to understand that the ramifications of the reorganization options can be far reaching and out of the control of the primary participants.
5. The final reason offered by the spokesmen of the sample districts was less definable than the previous four. This final reason boils down to a compatibility issue. Although present, it was very difficult to get any of the sample districts to offer any depth with regard to this issue. Although it would be interesting to hypothesize as to how and why the compatibility issue would manifest itself, it would serve no practical purpose in this research. It is sufficient to note that the issue is there and that it should be recognized if a district considers the reorganization/consolidation solution option.

Five of the sample districts attempted to obtain voter approval to implement reorganization/consolidation as a solution option to the problem and failed. In three of those five districts a building referendum was passed after the voters rejected the reorganization effort. In each of the three districts that had reorganization/consolidation fail and a building bond referendum pass the spokesman of each district believed that the attempt to reorganize influenced the voters of the district to vote for a bonding/building proposal. Further, the district spokesmen believed that in each of their communities the voters seemed to become more receptive toward the bonding/building option once they were convinced that the
school district was serious about utilizing the reorganization/consolidation solution option. When questioned about the perceived attitude of the voters the district spokesmen all felt that their voters in essence selected what they believed to be the lesser of two evils. In retrospect, given the fact that each district preferred the bonding and building option to the reorganization/consolidation option the district spokesmen were pleased with the outcome and looked at the effort to pass the reorganization/consolidation option as necessary in order to get the bonding and building solution passed.

Three of the eight districts that attempted to reorganize had the reorganization approved by their communities. Since being passed, two of the three districts are in the process of trying to pass a building referendum. Both of these districts are anticipating continued growth over a long period. In their case the problem has become cyclical and their approach to the solution of the problem has been dependent on where in the cycle the problem has manifested itself.

Eight districts openly acknowledged that they refused to consider the reorganization/consolidation option. As a point of clarification, refusal to consider and non-viability are two totally different and identifiable positions. Those districts that
refused to consider reorganization/consolidation could not or
would not cite any logical reason as to why they refused to
consider this solution. Rather, their responses ranged from an
emotional tirade in which the superintendent took an almost
Aryan attitude toward his district and quoted Board of Education
support to add credence to his response, to the superintendent
who smiled and acknowledged that they just had not thought of
it. These responses were particularly surprising given the fact
that the twenty-three other sample districts either elected to
attempt to use reorganization/consolidation or at least
researched it enough to list tangible reasons as to why
reorganization/consolidation could not be used. The legitimacy
of reorganization/consolidation was shown not only by the
three districts that were successful in implementing it but also
by the other five who selected it only to have their voters vote
it down. Since legitimacy is not an issue, serious questions arise
as to the motivation and/or competency of those decision
makers who refuse, for no valid reason, to consider
reorganization/consolidation as a serious solution option. At a
minimum it would seem that a lack of consideration of this
solution option was a disservice to the taxpayers of the
affected districts.
There was consensus among the sample districts that the reorganization/consolidation solution option is complex. Because of this complexity the districts that considered reorganization/consolidation as an option were required to put a great deal of effort into the gathering of information that would allow them to judge the final merit of the reorganization/consolidation option. Examples of those areas that the sample districts deemed necessary to study in order to judge the appropriateness of the reorganization/consolidation solution option for their district are as follows:

1. Land Area - The ultimate size of the district formed must be considered in order to judge the effort and appropriateness of transporting the children of the district.

2. Compatibility - The ability of the combined districts to philosophically interact was considered very important, especially with regard to academic and policy questions.

3. Financial - Knowledge of the financial status, both short and long term, of the reorganized district.
In the final analysis of the information provided in this study with regard to reorganization/consolidation as a viable solution option, it was clear that reorganization/consolidation was, in fact, a solution option capable of solving the problem given the appropriate circumstances. Further, reorganization/consolidation has, in fact, been used in Illinois to help solve the problem and is, when implemented properly, legal. However, because of the complexity involved with reorganization/consolidation issues all eight of the sample districts that chose reorganization/consolidation as a means to solve the stated problem expressed the opinion that thorough analysis and study of all of the outcomes of this solution option take place prior to its recommendation. Without thorough study of all of the outcomes of reorganization/consolidation those eight districts of the sample that had practical experience in implementing this solution option believed that there was a strong likelihood that more problems could be created than would be solved.

Section IV

In-district Utilization of Space

Of all of the solution options presented, the way in which a district uses its space is the solution option that is least
expensive and allows for the most creativity. Given the minimal cost factor and lack of restriction it was somewhat surprising to find that seven of the sample districts either considered in-district utilization of space and chose not to use it or did not consider it as an option at all. Three of the seven districts that chose not to utilize in-district utilization of space as a solution option felt that their current use of space was efficient and that this option could not provide any relief. This inability to provide relief rationale seemed appropriate given the fact that each district was governed and managed under a different albeit sometimes similar philosophy. Further, judgements as to what degree in-district utilization of space was or was not implemented was a matter of district philosophy. Therefore, use of in-district utilization of space in one district may vary markedly from its use in another district. For the purpose of this study use or non use of in-district utilization of space was of prime importance as opposed to the secondary issue of degree of use. It was found that in-district utilization of space was implemented to varying degrees as a solution option dependent on a district’s philosophy with regard to student space requirements.

One district remained consistent in that the only solution option considered was bonding and building. Further comment
on the rigidity of this district's attitude toward solving the stated problem is not necessary other than to note that it would seem, given the information communicated by the districts' spokesmen, that the motivating force behind the decision makers in the district was to not back down and to prove a point to the public rather than to act in the best interest of the children.

The other three districts that chose not to use in-district utilization of space as a solution option felt that they had to protect the integrity of their respective schools. As a part of protecting the integrity of the school there was a common reference to school atmosphere. It was felt by those districts that feared a loss of program integrity that any internal drastic space changes could possibly cause a loss of program integrity. Whether there is universal agreement on the possibility of jeopardizing program integrity through the changing or reutilization of space is not an issue. The real issue is that, based on the district's philosophy of student space usage, the decision makers of the district relayed that they truly made their judgements with the best interest of the student in mind. To question one district's philosophy toward the degree of use of in-district utilization of space would be inappropriate in the context of this study. What was appropriate was the district's
ability to successfully use to some degree in-district utilization of space part or all of a solution plan.

It must be noted that what was considered reutilization of space in one district was not necessarily considered as appropriate use of space in another. The reasons given for a lack of conformity vary. Logistically what is possible in one district may not be possible in another. For example, one district put all three of its computer labs in the hallways in order to vacate the original lab space for use as classrooms. There was no hesitation on the district's part to move the computers into the hallways. Moving the computers to the hallways was cause for some inconvenience but there were no significant problems. Given the end result of more classroom space the district was content, even proud, that it had implemented the change. Yet, when other districts that did not make such a move to free up classroom space were questioned as to why they did not implement a similar action a number of appropriate responses were offered. Some of the districts choosing not to use hallway space cited narrow halls and movement problems. Other districts expressed concern over vandalism while other districts cited the disruptive nature of the setting given the continual passage of students. Like many of the other solution
options, what works in one district cannot and will not always work in another district.

Perhaps more important than logistics in the use of the in-district utilization of space option is the creativity of the decision makers in coming up with ways to manipulate space usage in order to create or identify new space with which the stated problem can be addressed. A common way cited in reutilization of space was to make art and music programs itinerant thus freeing up the former art and music rooms for regular classroom purposes. Some of the more creative ways cited in which space was reutilized are as follows:

- In a K-8 building the library was "broken up" and moved to the grade appropriate hallways. That is to say that all of the primary library offerings were placed in the primary hallways, the intermediate offerings in the intermediate hallways, etc. The library was then able to be made into two classrooms.

- A bay in a district's bus barn was vacated (the bus was parked outside) and used for storage purposes. The former area that held the items placed in storage in the bus barn was then converted into a Chapter 1 classroom and an office area for a social worker.

- All of the equipment stored in the physical education storage area was moved to the space behind the retractable
bleachers in the gymnasium. The physical education storage area was then made into a speech classroom and teachers' lounge. The former teachers' lounge was used as a classroom.

The above examples are not only indicative of creativity but also of an attitude to give-up space that can be held very dearly in order to best address the problem and meet the needs of the students.

Twenty three of the sample districts indicated that in-district utilization of space was used as a part of the district's overall plan to solve the problem. Of the twenty three districts only two indicated that they would not change back to the space use that was in place prior to addressing the problem. There was one main reason given for not changing back to the original space use. That reason was that the boards of education felt that space was not being used efficiently in the district and this inefficiency needed to be corrected regardless of whether there was overcrowding or not. The fact that the districts were not using their space efficiently was brought to light because the boards of education were forced to look closely at space use as a result of the student population growth in the district. Since the districts' attitude was to use their space more efficiently the plans for a building project were reflective of that attitude.
The voters were cognizant of the boards of education's efforts and showed their appreciation by passing the building referendum in both of these districts.

One significant factor that was continually communicated by the districts in the sample as an area that should be acknowledged when seeking to make the most efficient use of school district space is how to deal with special education. By law special education class sizes are limited. The result of the limitations placed on special education class sizes is a situation in which regular classroom spaces have more and more demands being made on them in a growing district while the special education spaces remain intact. Recognition of the disparity in class size between special education and regular classrooms would allow district decision makers to plan for the internal problems that might arise from this seemingly unfair or unequal utilization of space. One sample district superintendent related that in his attempt to reorganize the districts space usage he was forced to put a third grade class in an area formerly used for storage. This third grade class had thirty-one students in it. At the same time a special education classroom of eight students was left untouched in its regular classroom. The superintendent was not allowed to move the special education room to any space other than regular classroom space.
because it would have been construed as providing less than equal treatment to a handicapped population. Suffice it to say that any action taken to increase the efficiency in which a district uses space must consider not only the political but also the legal ramifications.

Based on the information provided by the sample districts any district that desires to use in-district utilization of space as a solution option should understand and be aware of several points that are basic to this solution option. Generally, in-district utilization of space is the least expensive solution option to implement. The ability to get the most out of this solution option depends a great deal on the philosophy, creativity and ingenuity of the decision makers involved. When reassessing space usage spokesmen of the sample districts agreed that personality and ego were often barriers to changing the use of space. For example, a superintendent from one of the sample districts spoke at length about the problems his district encountered by turning the art and chorus rooms into regular classrooms and making the art and music teachers itinerant. In essence the problems arose because of the fact that the art and music teachers professed to be victims. Discussions with the spokesmen of the sample districts with regard to the problem of teachers feeling victimized because of changes brought about
through implementation of in-district utilization of space resulted in a consensus opinion that it is important to convey a philosophy that all changes were being made in the best interest of the students and for the good of the whole.

A factor that continually became apparent in discussions with spokesmen of the sample districts was that implementation of changes through the use of in-district utilization can be taken too far. That is to say that there is a law of diminishing returns in the sense than one can get so caught up in a search for efficiency that the harm done may well outweigh the good. For example, it would not be in the best interest of even an overcrowded district to create classroom space by vacating a storage room only to have the materials of the storage room placed in an area that caused a risk of harming a student or staff member.

Analysis of the sample district responses shows that in district utilization of space has been legally used in Illinois to provide a solution to the stated problem. Also, in-district utilization of space was generally seen by the sample as a short term solution option. Use of this option becomes a natural and logical process in that it can be implemented when needed or revert back to the original use based on the extent to which the problem manifests itself or the current philosophy of the Board
of Education. Also, by putting computer labs in the hallways, turning storage space into classrooms, etc., the public was forced to actually see the problem manifesting itself and not just rely on the words of the superintendent or board of education that the school was overcrowded.

Section V

Rent/Lease of Non-District Owned Space

As a group, the superintendents of the sample districts or their designees seemed very self assured and knowledgeable when discussing the rent/lease option. An ability to convey self assured, knowledgeable responses was not necessarily present in several of the discussions held with regard to a number of the other solution options by those same superintendents or designees. During the interview process the comfort level of the superintendents/designees was enhanced by the knowledge that they could quote rental or lease costs, cite a lack of availability of appropriate space or relate negotiations with renters/lessors without the risk of providing proof that the information being offered was valid. That is to say that as a solution option rent/lease was more controlled by local parameters than all but the joint facility use option. Since rent/lease availabilities and costs were a product of local
conditions and values it was difficult to verify portions of the information communicated by the sample district spokesmen with regard to this solution option. An inability to verify information could have given rise to embellishments, either positive or negative during the information gathering process. Therefore, unless the interviewer has a thorough knowledge of the community in which the sample district is located there is a possibility that the district spokesmen could offer information based on their own judgements rather than fact and not be at risk of being discovered. Regardless of the reasons for the overt self-assuredness of the sample district spokesmen with regard to the rent/lease solution option, the rent/lease option required the least effort in the solicitation of information from the sample. The fact that twenty-seven of the sample districts considered rent/lease as an appropriate solution option reinforced the comfort that was felt during the interview process with regard to the rent/lease option. Overall, rent/lease turned out to be one of the most considered solution options.

Nineteen of the sample districts indicated that after studying the rent/lease option they decided that the option did not lend itself as a viable solution given the circumstances surrounding their districts. A number of reasons were cited by
the sample district spokesmen for the lack of viability response. Three districts found the cost of the available space to be out of practical reach of the district. Somewhat related was the district that required so much square footage that the cost was prohibitive. Other reasons for nonviability included, a lack of available or appropriate space, or, the space available did not suit the needs of the district. Nonsuitability was generally spoken of in very subjective terms such as "poor atmosphere" or "stark and unfriendly." However, one concrete reason was offered: An inability to meet life safety requirements was cited as the death blow that put an end to many of the rent/lease negotiations.

In one of the sample districts a lease agreement was entered into with a neighboring district that had a vacant school building. This action was, at the time, considered a long term solution. However, the sample district continued to grow to the point where the district would soon become overcrowded again. The result of the continued growth was to change leasing to a short term solution with the long term solution becoming bonding and building. The reverse of this situation occurred in another of the sample districts. This reverse situation occurred when the district that leased a school to its neighbor grew to the point where the lease was not renewed so that the owner
district could put its own students in the formerly leased building. After the nonrenewal of the lease the leasing district had no alternative but to look for a solution option other than rent/lease.

More than anything else the factor that determines whether rent/lease will become a long or short term solution is the amount of space available through the implementation of this solution option. Where two districts were fortunate to have the availability to rent an entire school other districts have not had the opportunity to acquire such a significant amount of space. Those sample districts that were able to rent or lease smaller amounts of space were forced to consider the rent/lease option as a temporary solution or as only a part of a more complex solution plan.

Seven of the sample districts used rent/lease as a temporary solution that was a part of a more complex solution plan. Perhaps the most important information imparted by the spokesmen of the districts that used rent/lease as a temporary solution was the type of spaces that were found to be available and appropriate. The only district of the seven that utilized rent/lease solely as a temporary solution was an elementary district that entered into a rental agreement with the high
school district that it fed for the purpose of acquiring the space needed to house early childhood and at risk programs. As a result of the rental agreement the elementary district was also able to enhance its early childhood classes by utilizing the skills and availability of selected high school students. This particular use of the rent/lease solution option shows how the decision makers of a district were able to find a way to benefit in ways other than just the acquisition of space. The ability to increase or diversify the benefits of a solution option were due to the creativity of the decision makers. Once again the creative skills of the decision makers can be seen as a critical factor in the implementation of a solution option.

The other five sample districts were able to find appropriate space in less traditional areas. One district leased mobile classrooms from another district that had no current use for them but anticipated a need for the mobiles at a future date. Two districts leased and placed temporary mobile units at school sites. The temporaries were only used for the two year period it took to build new space. One other district rented office space in commercial buildings. Of all the districts that indicated an attempt to search out rent/lease space only one indicated utilization of park district or library district space. The superintendent of the school district that did enter into a lease
agreement with a park district for classroom space indicated that usage of the park district space, though somewhat inconvenient, was a very positive situation for the community. The superintendent further indicated he would have been perfectly content to continue the arrangement; however, given the continued growth of the community the school soon needed more space than the park district could offer.

Based on the information provided from the sample districts and on the actual usage of rent/lease agreements, rent/lease of non-district owned space was proven to be a valuable and legal option in a search to solve the stated problem. Further, as evidenced by the number of sample districts that considered the rent/lease option, the rent/lease solution option is not a revelation to those who are charged with the responsibility of solving the problem of growth and overcrowding in their schools. Just as with many other of the solution options the viability of the solution and the extent to which the solution causes benefit or further dilemma to the school district is very often a product of the creative ability of the decision makers. A lack of credibility or even competence has, during the course of this research, been cited with regard to recognition and implementation of other solution options. However, there was no evidence of such deficiencies with
regard to the recognition or implementation of the rent/lease solution option. To the contrary, creative uses of the rent/lease option varied from leasing storefronts for administrative office space, to leasing a vacated Catholic school, to renting space in an adjacent district through the payment of the students' tuition to attend another school. The exception was the one district spokesman who consistently indicated that there was only one appropriate solution to the problem and that solution was bonding and building and that any other solution option caused more trouble than it was worth.

Section VI

Joint Facility Use Agreement

Of all of the solution options the one that required the most definition and explanation in order to facilitate communication with the spokesmen from the sample districts was joint facility use agreements. In order to facilitate communication with regard to joint facility use agreements each person that was contacted for information was given a definition of joint facility use agreements. For the purpose of this project the definition of joint facility use agreements is as follows: any agreement, written or otherwise, that does not require money reimbursement and establishes the conditions necessary by which a school district can acquire use of space
owned by another party. Much like the rent/lease solution option, joint facility use allows for use of non district owned space. However, unlike rent/lease, no money changes hands.

After making sure that joint facility use agreement was uniformly defined to the spokesman for each sample district it was found that twenty three of the sample districts had considered joint facility use agreements as a solution option. The eight other districts in the sample including the one district that consistently communicated that it would use only bonding and building as a solution had not considered joint facility usage as a solution option to the stated problem.

Of the twenty three districts that had considered joint facility use as an option only seven ultimately implemented it as part of their solution plan. The sixteen districts that considered joint facility use but were unable to utilize it as a part of their plan to solve the problem cited several reasons that led to their decision. The most common of those reasons that precluded use of joint facility use agreements are discussed in the following paragraphs.

Since no money changes hands in a joint facility use agreement it is easy to understand why the vast majority of
these agreements take place between two government entities or taxing bodies. That is, in the context of this study, an agreement for use of space with any entity other than a non-profit agency always involved a monetary payment and was classified as a rent/lease agreement. Therefore, a school district wishing to avail itself of the joint facility use option has the greatest opportunity for success by approaching a park district, library district or some other similar agency that derives its operating dollars from the same place as the school district, the community.

One of the reasons cited for an inability to exercise the joint facility use option was the lack of other taxing district(s) in the community in which the school district was located. Very simply put there was a limit on the number of entities available with whom a joint facility use agreement could be entered into. An inability to consistently and adequately schedule facilities was also cited as a reason that deterred joint facility use. It was found to be common for park districts to have an open schedule in which patrons come and go as they please. This open time scheduling is in many cases valued by members of a community and as such severely limits any facility use agreements that otherwise could be entered into.
The last reason commonly communicated as a detriment to the implementation of a joint facility use agreement was the fact that in a growing community it is not uncommon to find park, library or other municipal facilities just as overcrowded and overused as the schools. Therefore, in a situation where all building use is stretched to its limits a joint facility use agreement would not generate any significant new space.

It is significant to note that all seven of those districts that utilized joint facility use agreements felt, initially, that at best joint facility use was a short term solution that would no longer be used once a long term solution option could be implemented. However, three of the seven districts that initially utilized joint facility use agreements as a short term solution option have since changed their attitudes to the extent that joint facility use has become a philosophy in addition to a solution option.

The three districts that have embraced joint facility use as a philosophy are either in the process of entering or have already entered into long term arrangements with other non school taxing bodies to share facilities. One district was able to build a school building on a site that was only one third the size needed because the park district owned the adjacent property.
which was utilized by the school district. In return the school district allowed the park district access to the new school building during non use time and in exchange the park district maintained and provided equipment as well as priority access to the park property to the school district. In a similar situation a sample district acquired its entire building site from the local park district. Another of the sample districts, embracing joint facility use over a long term, has entered into agreements with both the local park and library districts. The school provides access to its gymnasium, cafeteria, computer labs, etc. to both the library and park boards and in return the library and park boards helped to pay or defray school district building costs while providing space to the school. The superintendents of the districts involved in the long term usage of joint facility use agreements were proud of the arrangements and spoke at length of the benefits and efficiencies of the those joint agreements.

The eight districts that did not consider using joint facility use agreements as a solution option communicated mixed reactions with regard their lack of usage when questioned as to why this solution option would not work for them. The most prevalent reasons given by the eight districts that did not consider joint facility use agreements were diverse and easily
defined. The first reason given was quite simply that it (joint facility use agreements) had not been thought of. The honesty of such a reason was appreciated; however, not thinking of it as a solution does at a minimum lead to questions of effort on the part of the decision makers. Another reason, though easily defined, was more difficult to accept. In simple terms the reason was an inability to get along with the governing bodies or administrators of the other agencies. One would hope that where the best interests of the taxpayers or, more importantly, their children were at stake, there would be an ability by adult professionals to overcome ego and/or pettiness; however, in some of the communities in this study this was not the case.

An example of two taxing bodies not getting along thus causing a hindrance to implementing joint facility use agreements was related by one of the sample district spokesmen who approached the local library district with a joint facility use proposal. The proposal contained a request by the school to use seldom used library classrooms for district kindergarten classes. In return the school district would have allowed the library to use school district space for satellite programs after school hours. According to the school district spokesman an agreement was not reached because the library Board of Directors recalled that five years prior the Board of
Education did not openly support the Library Board's request for a tax rate increase. Even though the joint use agreement was beneficial to both entities it was not accepted because of the Library Board of Director's desire to not work with the School Board. Further reasons cited for non consideration of joint use of space were alluded to earlier in this chapter and, simply put, amount to scheduling problems, capacity problems (the other entities were also suffering from a lack of needed space), and availability problems (no park, library, etc., districts in the community.

As a result of the information derived from the sample it was found that joint facility use agreements have been legally used to help solve the stated problem. Further, it was found that joint facility use agreements could be the impetus behind the creation of a synergistic relationship between taxing bodies thereby benefitting all entities involved including the community at large.

Section VII

Year Round School

As compared with the responses offered by the sample district superintendents or their designees with regard to solution options, the year round school option produced the most
negative responses. When questioned about the feasibility of year round school as a solution option, it was not unusual for the responses to be preceded by a statement such as I don't want to touch that one, I value my job. The negative effects as well as the positive effects that a change to a year round school program can have on a community are documented in Chapter Two of this dissertation. Every individual contacted during the course of this research indicated an awareness of the negative aspects of this proposed solution option whereas less than a dozen of those same individuals acknowledged the benefits that could be achieved through the implementation of the year round school solution option. The pervasive attitude of the sample was so negative that although it was impossible for anyone to refute the potential of year round school as a solution option, there was not one single instance cited where year round school was implemented by the sample as a part of a solution to the stated problem.

Thirteen of the sample districts indicated that they had considered the use of year round school as a solution option but could not gain enough board support to openly discuss its potential for implementation. The consensus of opinion in the sample was that twenty four of the sample districts were elementary districts added to the negative perception with
regard to the year round school solution option. The consensus of the sample resulted in the following negative feelings toward year round school:

A. A community's unwillingness to break the tradition of the standard nine month school schedule.

B. The difficulty in coordinating a year round elementary schedule with a nine month high school schedule.

Both A. & B. could be the source of enough community dissent to convince a Board of Education that other, perhaps even less efficient or more costly, solutions should be used to solve the problem.

Above and beyond the thirteen districts that would not provide the support to study the implementation of year round school, fourteen districts openly admitted not discussing or formally considering year round school as a solution option that they would implement. Unlike some other solution options the district spokesmen indicated that their lack of support of year round school stemmed not from ignorance but rather from a perceived basic knowledge of year round school. The spokesmen agreed that year round school was not attractive as a solution option because its problems were understood by them and their communities. Thus, year round school was one of the most understood solution options.
The exception to the negative attitudes found toward year round school as a solution to overcrowding was found in four districts that were planning to use year round school as a solution option, if necessary. Those four districts stated that they would implement year round school as a last resort solution to the problem. One district indicated that year round school should be considered as a long term solution that should be implemented under the auspices of efficient use of space and program enhancement. In the event that the district was able to pass a referendum for bonding and building (its primary solution option) the district would still consider year round school for program enhancement reasons. Although other districts did acknowledge some positives with regard to year round school, the district that seriously considered implementation on the basis of educational enhancement was unique in this study.

The other three districts that were willing to utilize year round school as a solution option also cited educational benefits as a part of their rationale for offering year round school as a solution option. However, those districts did not attempt to "play up" the educational enhancement issue. When questioned as to why more emphasis was not placed on the educational
positives associated with year round school all three districts admitted that their desire was to use the year round school option as a means to intimidate voters into passing a building referendum.

Further, all three districts communicated that they would not hesitate to do everything possible to implement the year round solution should their first choice (bonding and building) fail. Their collective feeling was that once year round school was implemented, it would only be a matter of time before the community would "break" and approve a building project. Though admittedly a risk in the sense that year round school would require a tremendous amount of work to set up a year round schedule and program, the three districts felt that given the foreseeable problem of gross overcrowding that they had no choice. Even if the community accepted year round school and was not coerced into approving another solution, all three districts still would have ended up with a solution to the problem that they considered educationally beneficial to the students as well as financially beneficial to the community. This scenario was, in essence, a no lose situation with regard to solving the stated problem. All four of the districts that were willing to implement year round school as a solution option exhibited the degree of insight and creativity that was
consistently shown to be of great benefit in the choice and implementation of any of the solution options.

In the final analysis year round school was found to be a solution option that was understood, conceptually, more so than any of the other solution options presented. However, given that there was a conceptual understanding of year round school it was also found that there was a general lack of awareness as to the options of how to set up a year round school schedule by twenty-two of the thirty one sample districts. This lack of awareness was not, however, seen as a deficiency since those districts lacking the knowledge of the many options of how to set up a year round schedule never seriously considered implementing the option. Therefore, there was really no reason to expect those districts to have the degree of understanding necessary to put the year round school solution option into effect.

It was also found that the strong negative reaction to the year round school solution option was in part a product of a general awareness of a lack of successful experiences with year round school programs in Illinois. When many of the positive arguments (listed in Chapter Two of this dissertation) were offered to those expressing a negative reaction to year round
school the response could best be characterized as aggressively entrenched. Perhaps the best example to sum up this response would be, if it (year round school) is so good why hasn't it been successfully implemented more often? However valid the positive arguments, the sample spokesmen believed the negatives were just too overwhelming.

The exceptions were those districts that in their own way manipulated the year round school option to best benefit them. According to those districts year round school became a hammer that was used to intimidate a community into choosing other solution options considered by the community to be the lesser of the evils. The ability of certain of those district decision makers to analyze the situation, recognize the strong negative feelings associated with year round school and attempt to use those negative feelings as a means by which a solution to the stated problem could be achieved allows the possibility that year round school could provide more to a comprehensive solution plan than just an increase of available space. Year round school could be used as a threat to get the community to select the solution option desired by the school district.

When fully considered as a solution option, year round school offers a degree of diversity to a comprehensive solution
plan. Based on the information provided by the sample, year round school was found to be legal in Illinois and was, in theory, capable of providing a solution to the problem. Further, it is not believed that year round school will grow in its utilization to any great degree as a solution to the stated problem. However, year round school does warrant study and consideration because it is easily understood in concept by the voters and, whether popular or not, it could provide the space with which the stated problem could be solved.

Section VIII

Multiple Shifts

Information from the sample districts with regard to multiple shifts as a solution option was almost identical to year round school. However the district superintendents or their designees did not exhibit the same degree of hostility toward multiple shifts as they did toward year round school. Although the reason for a lesser amount of hostility toward multiple shifts could not be readily ascertained, it was communicated by the sample district spokesmen that a part of the greater comfort with multiple shifts was a result of the lesser amount of work that would be needed to implement multiple shifts as a solution option as opposed to year round school. Both solutions were seen as last resort options in all but one of the sample
districts. Also, both multiple shifts and year round school were used by the sample districts as "threats" in an effort to intimidate district voters into choosing another solution option.

Eighteen of the sample districts indicated that they would not offer multiple shifts as a solution option at the current point in time. All eighteen of those districts basically understood the multiple shifts solution option. However, twelve of the eighteen districts not willing to support multiple shifts as a solution option could not correctly cite the minimum hours needed in a shift in order for it to be considered by law as a full attendance day. This lack of knowledge could be interpreted in the context of this study as an indication of the district spokesmen's lack of interest and lack of willingness to consider all possibilities. That is, if there was an legitimate interest in considering multiple shifting, one of the basic questions that has to be addressed before any sample scheduling can be done is what are the minimum scheduled hours required by law per shift?

Nine district spokesmen indicated a willingness to offer multiple shifts as a solution option; however, all nine cited a lack of support by their boards of education. This lack of support caused multiple shifts to be officially disregarded by these nine districts. In general the spokesmen indicated relief that
multiple shifts would not be considered because they felt that the multiple shift solution would hurt the educational growth of their students and would not in the long run be in the best interest of the school system or the students. Further, those same spokesmen felt that they had done their jobs by bringing the multiple shifts solution to their board's attention.

Four other districts indicated a willingness to implement or at least attempt to implement multiple shifts as a solution option in the event that all else failed. All four of these districts indicated that they were hopeful that the voters of the school district would be more willing to vote for a less disruptive solution option if they, the voters, thought that multiple shifting was an alternative to the solution they were voting for. Again, the idea that by showing a willingness to implement a solution option that the voters might consider as undesirable might very well coerce the voters into accepting a solution option that was more desirable to the district even though the more desirable solution may not, prior to the introduction of the less desireable multiple shifting, had enough community support to gain acceptance.

The information offered by the sample districts with regard to multiple shifts as a solution option to the stated problem
indicates that multiple shifts is in fact a legal and theoretically viable solution option albeit an unpopular one. Further, much of the information offered about multiple shifts was similar to that information available with regard to year round school. Other than the open hostility present during the discussions about year round school the discussions regarding multiple shifts were very similar to those regarding year round school.

In summary, the sample districts further indicated that the proposed use of multiple shifts as a solution option could be used as a hammer held over the heads of the voters to be used to coerce a positive support of another solution option. At worst, when forced to utilize multiple shifts as a solution option, the stated problem could be solved either totally or to some degree. However, new problems that may be created through the implementation of multiple shifts as a solution option were considered by the sample district spokesmen to be potentially more detrimental to the school district than the stated problem.

Specifically referred to by the sample district spokesmen as problems created by multiple shifts were:

1. Staffing Difficulties - Extended use of the facility and the instructional day would require a pro rata increase in current teacher time or hiring of part time teachers.
2. Related Collective Bargaining Issues - Individual extended day contracts or any change in the collective bargaining agreement could be the source of labor problems and subsequent contract problems.

None of the sample district spokesmen could recall or cite any information with regard to their knowledge of any school district in Illinois that had successfully, in terms of continued use, implemented multiple shifting as a solution option. Further, those school districts not in Illinois that were found to have implemented multiple shifting, for any reason, without exception scheduled each shift at less hours per day than had been scheduled in the prior single shift traditional schedule. This schedule raised negative questions concerning the district's ability to meet students educational needs adequately and legally.

Section IX

Additional Proposed Solution Options

All of the spokesmen of the sample districts were asked if they could identify any solution options other than those identified in the text of this project and if so, on what basis was the identification made. For example, was a spokesman citing a
new solution option that he was aware of being used in a school district or was the new solution option based solely on his hypothesis.

In response to the inquiry requesting any as yet unidentified solution options sixty-one percent or nineteen of thirty-one districts indicated that they could not identify any other solution options other than those solution options offered in the text of this project. Twelve of thirty-one districts or thirty-nine percent responded with regard to the request for unidentified solution options with their ideas as to what could be considered a "new" solution option. Those ideas, however well thought out, did not generate any solution options that were not already identified. The ideas postulated as new solution options can best be classified as adaptations of one or more of the original eight solution options, factors intrinsic to one or more of the original eight solution options or, simply inappropriate.

Seven of the twelve districts that offered ideas as new solution options fell into the category of adaptations of one or more of the original eight solution options. One district in this group of seven felt that paying tuition to send students to another district would constitute a new solution option. Paying
tuition to send students to another district was the offering that was arguably the closest to a new solution option of all of the ideas offered. However, upon closer scrutiny paying tuition was considered to be a creative adaptation of the rent/lease solution. In essence when a district pays tuition to send a student to another district the paying district is renting/leasing education space at another district through its payment of a tuition fee. Again, it was acknowledged that an argument could be made for considering the paying of a student's tuition to attend another district as a new solution option. However, because of the similarity with rent/lease in the area of the payment of a fee and creating a written agreement between the school districts, paying students' tuition to attend another district was considered as an adaptation of the rent/lease solution option.

In order to benefit from an agreement to send students to another school by paying their tuition there would have to be a unique set of circumstances. An adjacent district would have to have the room available as well as the desire to accept the burden of more students. Circumstances would have to be such that the students being accepted did not require more services than the tuition payment (established by the state) could pay for. Further, the sending district could very well run into
significant political problems in selecting the students that would be sent to another district.

Should all of the necessary conditions be met, renting space through tuition payments could be a cost effective way of utilizing the rent/lease option. Since the district sending the students out can still count the attendance of those students toward its own state aid, there is a slight possibility that the district paying tuition could come out ahead financially. For there to be a financial advantage to the district paying tuition the receiving district would have to have a lower cost per pupil than the sending district and the sending district would have to be a resource equalizer district that received a large amount of state aid per student. Add to the low tuition cost and the high state aid reimbursement per child and the sending district's savings in staff costs that would have been incurred to educate the tuition paying students and it becomes apparent that paying tuition to rent space to another district could be a financially feasible use of the rent/lease solution option.

Two of the seven districts whose offerings of new solutions were considered as adaptations thought that raising class size should be considered as a solution option. Raising class size as a solution option was considered in the context of
this research to be a part of in-district utilization of space. Many districts have a board policy or union agreement that limits class size. To raise the limit would not create new space but it would allow for more students to be housed in a building. In essence, by allowing an increase in class size the districts lower their standards for square footage per student, thus creating a situation in which the school would house more students.

Two other districts of the seven that offered new solutions that were considered as adaptations of one of the original solution options felt that the use of portable classrooms should be considered a new solution option. It would seem that the use of portable classrooms would clearly fall under either the rent/lease or the bonding/building solution option. However, in larger more financially able districts, acquiring portable, temporary, or even modular classrooms would not require the district to enter into debt (bonding). Yet, regardless of the means through which the space is purchased the considerations of the district would be the same as would take place in a building project or in the creation of a rent/lease agreement.

Two of the final three of the seven districts offering new solution options that were considered as adaptations of one or
more of the original solution options offered very creative ideas. The third district felt that adding on to present structures constituted a new solution option. Even though building additions do not require voter approval unless bonding is required, it is clear that the bonding/building solution option provides the information and understanding necessary to add on to current structures. Therefore, room additions were considered to be a part of the bonding/building solution option.

One district offered lease/buy as a new solution option. Lease/buy was, in essence, discussed at length in the text of this project under the rent/lease solution option. Although lease buy has potential as a solution, it is in fact a very important and integral part of the rent/lease option.

The final proposed new solution option required the building of a building that served as both new school space and prime commercial space. The commercial space would provide for income to help pay off the school space and over the long term provide for a constant income source with which the school could continually utilize to meet the space needs of the district. Although this idea was original and provides for a great deal of creative speculation on the part of the district problem solvers, it was considered to be an adaptation of the bonding/building
solution and/or the rent/lease solution depending on how it was structured.

Two districts that offered ideas for new solution options in fact offered factors that were considered as a part of one or more of the original solution options. Both districts proposed the idea of impact fees as a solution option. Impact fees were very clearly a part of the bonding and building solution and as such were discussed in this study.

The final two of the twelve districts that offered new solution options offered ideas that were deemed as inappropriate. Specifically, one district's proposal of a new solution option was how to pass a referendum. How to pass a referendum was clearly important with regard to the bonding/building solution option but in and of itself does not stand alone as a solution.

The final offering of a new solution option was to create a long term plan. Long term planning was in fact considered to be an important part of solving the problem but planning is a part of all of the solution options and in the context of this research could not stand alone as means through which the problem could
be solved. Rather, planning could very well be the means through which the best solution option could be identified.

Although the sample districts could not add any different solution options to those offered, many exciting and creative ways in which the original solution options could be used were identified. It became apparent that leadership, creativity and adaptability play a very important role in choosing and adopting the solution option(s) to best solve the stated problem. The greater the ability of the decision makers to mold the solution options to best suit their specific situations the greater the opportunity to create a solution plan that has the best chance of success. That is not to say that a rigid single option solution will fail; however, it does say that the greatest opportunity to solve the problem comes from solutions that are flexible and adopted to the specific needs of the district.
The purpose of this study was to identify growth and overcrowding in certain Illinois' schools as a problem and subsequently to identify solutions that would solve the stated problem of growth and overcrowding. As a result of the research that went into this study the problem of growth and overcrowding in Illinois' schools was validated as were the identified solutions to the stated problem. Not only were the identified solution options validated, those solution options were also found to be legal and sound in terms of practical application. Further, the interviews with the sample districts made it clear that solution options to the stated problem identified through the review of related literature were all inclusive, no new solution options were identified.
Summary

Growth and overcrowding in certain Illinois' schools has manifested itself to the extent that growth and overcrowding can legitimately be considered a problem. Legitimacy was judged by the fact that several school districts have spent or are in the process of spending a great deal of resources, time and energy to rid themselves of (solve) the problem. The manifestations of the problem that have caused school districts to expend the resources necessary to solve the problem were in all cases readily apparent. Specifically, those manifestations were a physical inadequacy of space and a resultant diminishing of the school district's ability to adequately and efficiently educate students as effectively as was possible prior to the manifestation of the problem. Research in Chapter One of this study further reinforces the contention that growth and overcrowding was in fact problematic in that the growth and overcrowding was, in documented studies, detrimental to the learning process, especially in students that were considered minority or disadvantaged. The problem is real!

Given the reality of the problem, this project was designed to systematically study the problem in an effort to validate and/or identify all viable solution options available with which
the problem could to some degree be solved. The steps taken to acquire the data needed to carry this study from inception through closure are as follows:

1. Validate the problem.

2. Identify those districts that had or were in the process of dealing with the problem.

3. Research related literature and as a product of that research identify a list of solution options that were proven to be:
   a. practical.
   b. legal in Illinois.

4. Interview the spokesmen of those districts identified as being impacted by the problem for the purpose of:
   a. soliciting data with regard to the practical and/or theoretical application of each solution option in order to determine the legality, usability and desirability of each solution option.
b. soliciting data as to the existence of any solution options other than those derived from the search of related literature.

During Step 4, the interview, many of the district spokesmen were contacted more than once as new and relevant information was made available through interviews with the spokesmen of the other sample districts.

Conclusions

As an outcome of this study a number of conclusions were reached with regard to preparing a public school district in Illinois to legally solve a problem of growth and overcrowding in its school(s). Those conclusions reached as a result of this study are listed as follows.

1. The Seven Solution Options Presented Are Legal And Were Proven Effective In Providing Some Degree Of Solution To The Problem. The review of literature and the information provided by the sample indicated that the problem can be legally solved by one or more of the solution options presented in this study.
2. Beyond The Seven Solution Options Presented No Other Solution Options Were Identified. The review of literature and the information provided by the sample indicated that the seven solution options presented represent the only means through which the problem can be legally solved.

3. The Bonding And Building Solution Option Was The Solution Option School Districts Chose The Most In Their Efforts To Solve The Problem. Information provided by the sample indicated that one hundred percent of the sample ultimately chose this solution option as part or all of their solution plan.

4. Upon Implementation All Seven Of The Solution Options Cause Side Effects That Can Be Beneficial Or Detrimental To The School District. The review of literature and the information provided by the sample indicated that those districts that implement a solution option will experience other effects of that option in addition to the solution to the problem.
5. The Ability To Successfully Implement A Solution Option Can Be Enhanced When A Solution Option Known To Be Unpopular In A Community Is Offered As An Alternative To The Solution Option Desired By The School District. The information provided by the sample indicated that School Districts can sway public opinion toward a School District desired solution option by carefully choosing the solution options presented to the community or the Board of Education for approval.

6. Each School District In Illinois Is Unique And As Such Requires A Tailor Made Application Of One Or More Of The Solution Options To Solve The Stated Problem. A review of literature and information provided by the sample indicated that a successful solution to the problem in one district will not necessarily be a successful solution to the problem in another district.
Recommendations

Based on the conclusions reached as a result of this study a list of recommendations was created for the purpose of adding further insight into solving the stated problem. Those recommendations follow.

1. Preliminary preparations to ready a school district to solve a growth and overcrowding problem should include a review of the research presented in this dissertation. Given the lack of information available with regard to solving a problem of growth and overcrowding in an Illinois school district this dissertation represents the latest and most comprehensive data available on the subject. As such the information available in this dissertation enhances the opportunity to successfully solve the stated problem.

2. Be knowledgeable of the solution options. A working knowledge of the solution options was found to be beneficial in order for a school district to create the greatest opportunity for success in solving the problem. Also, without a knowledge base of the solution options the school district decision makers were unable to grasp the full potential of combining the solution options to create the best situation.
possible through which the solution of the problem could be reached.

3. Be knowledgeable of the needs of the school district and the community. An intimate knowledge of school district and community needs will allow the school district decision makers to evaluate and utilize the solution options that will offer the greatest opportunity to solve the problem of growth and overcrowding while providing for a synergistic relationship between the community and the school district.

4. Be creative in adapting solution options to solve the problem. Each solution option is capable of providing some degree of solution to the problem given specific circumstances. The degree to which any solution option is utilized is limited only by those specific circumstances and the school district decision makers' creativity.

5. Formulate a solution plan. Given the knowledge of the solution options, knowledge of the needs of the school and community and creativity of the school district decision makers, a solution plan can be created that will offer guidance and
direction in the quest to solve the stated problem in the best possible way.

6. Be aware of the side effects caused through implementation of one or more of the solution options. The ability of a school district to avoid negative side effects and efficiently utilize positive side effects can greatly enhance the benefits derived from solving the stated problem.
Suggestions for Further Study

As a result of this study several topics have been identified that could, if researched, provide ancillary scope to the conclusions reached in this project. Those topics that give rise to suggestions for further study are listed below.

1. What impact have School Site Donation Ordinances, Impact Fees, or Tax Increment Financing Districts had on Illinois' School Districts ability to solve growth and overcrowding problems?

2. What is the prevalent attitude of Illinois' Boards of Education with regard to sharing resources with other local governmental bodies?

3. What Illinois School District problems other than growth and overcrowding could be solved through implementation of the solution options?

4. What is the incidence of intergovernmental cooperation by school districts with regard to mutually beneficial problem solving?
5. Embark on a five to ten year reevaluation of the sample districts from this study for the purpose of judging the effectiveness of the sample district's solution choices.
APPENDIX A
9 months before election day:
* Discuss the financial need for an election.
* Informally contact the community "movers and shakers" for their input and possible commitment to volunteer.
* Develop campaign logo and philosophical perspective on the campaign.
* Begin research on past election trends.
* Conduct voter surveys focusing on perceptions of the schools and level of supportable tax requests.
* Compile data on voter identification.
* Informally recruit and solidify your campaign "inner circle."
* Initiate discussion with the private sector and other external funding sources to develop matching fund pledges, funding partnerships, and so forth.

8 months before:
* Stage your Campaign Kickoff Celebration.
* Contact schools districts that have just completed campaigns and request ideas, campaign materials, insight, perceived voter trends, and so forth.

6 months before:
* Form Tax Planning Team to look at possible tax structuring and determine election dates.
* Develop a fact sheet for the campaign.
* Complete community surveys and analyze the data.
* Launch voter registration drive.
* Begin active coalition building campaign.
* Recruit volunteers and solicit campaign funding.
* Complete identification of and map out all the voters in the district.
* Order all informational and promotional materials.

5 months before:
* Form the all-important steering committee.
* Establish and train your speakers bureau and slide presenters.

4 months before:
* Prepare and disseminate informational packets to all teachers, school staff, volunteers, and influential community members.
* Prepare and disseminate media informational packets (can be the same as your staff's informational packets, but often may include publication-ready materials).
* Organize the individual school campaign committees and coordinate canvassing, telephone outreach, and mailing efforts among the different arms of the campaign.
* Immediately begin recruitment of precinct volunteers.
* Enlist and train the community presentation teams, including familiarization with video aids.

3 months before:
* Conduct followup enumeration activities to determine YES, NO, and undecided voters.
* Hold mailing party for campaign brochures.
* Schedule presentations for local service clubs, church groups, and other target organizations in the community.

2 months before:
* Complete voter registration drive with a final push.
* Attempt to hold parent–teacher conferences now and use the op-
portunity to register parents and solidify parental support.
• Complete campaign fundraising activities with a final gala event and then determine your media advertising schedule based on available funds.
• Remember to make the campaigning FUN-reinforce the team concept and feelings of solidarity through motivation-building activities.

6 weeks before:
• Hold media briefings. Stage creative events aimed at communicating a specific message to the community.
• Begin door-to-door canvassing; at a canvassing kickoff celebration, hold motivational social and educational events for your volunteers and staff.
• Distribute lawn signs to interested community members.

4 weeks before:
• Contact local businesses for advertising space.
• Plan and purchase newspaper, radio, and television advertising space for the week preceding the election. All ads should be camera ready by this time.
• Tape radio and TV spots with targeting pitches.
• Briefly target absentee voters just as the ballots go out. Attempt to identify absentee voters and conduct a direct-mail campaign.

3 weeks before:
• Reevaluate campaign strategies and adapt tactics as necessary.
• Hold open houses in schools.

2 weeks before:
• Send all churches copy for their Sunday bulletins for the week preceding the election.

10 days before:
• Begin newspaper, radio, and TV ads now and build up to election day.
• Begin countdown activities in the schools and the community.
• Make victory party preparations.

5 days before:
• Time targeted mailings to arrive just before the election.
• Establish telephone banks.
• Conduct final door-to-door canvassing the weekend before the election.
• Finalize preparations for the day-before and election-day strategies, including assignments of specific volunteer duties.

The day before:
• Film telephone campaign at contacting every YES and undecided voter in the district.
• Media exposure peaks today.

ELECTION DAY:
• Poll watchers check off arrival of desired voters.
• Place reminder calls in the late afternoon to those desired voters who haven't yet voted.
• Hold the election party and victory celebration.

Followup after the election:
• Enter the election data into your growing district voting database.
• Analyze voting behavior by various indicators to get immediate feedback on the success of your campaign strategies. And be sure to record your findings for the next time.
• Send thank you notes to all workers and school staff.
APPENDIX B
RECOMMENDATIONS FOR ELEMENTARY AND HIGH SCHOOL SPACES

The following information is offered as a guide in building new school facilities or the rehabilitation of existing facilities. Constant research is carried out and there is no complete agreement on specific details. School boards are advised to employ an architect experienced in the design of educational facilities, and registered in the State of Illinois. The information included in this publication is suggested only and is not to be considered as requirements. Some areas must be increased in order to accommodate the special needs of the handicapped. (Refer to State of Illinois Accessibility Standards.) For further information, please call School Organization and Facilities Section at 217/782-2962.

I. GENERAL

A. SITE

(1) The necessity for larger sites is due to a number of trends such as: (a) space for outdoor teaching areas, (b) single-story structures, (c) single-load corridors, (d) campus and cluster-type layout, (e) the school-within-a-school concept of school organization, (f) consolidation of attendance areas resulting in larger schools, more buses, and regulations and practices requiring on-site bus loading and unloading, (g) parking space for the increasing number of teacher and pupil cars.

(2) Recommended areas

a. For elementary schools - a minimum of 5 acres plus an additional acre for each 100 pupils of predicted ultimate enrollment. Thus an elementary school of 200 pupils would have a site of 7 acres.

b. For junior high school - a minimum site of 20 acres plus an additional acre for each 100 pupils of predicted ultimate maximum enrollment. Thus a junior high school of 500 pupils would have a site of 25 acres.

c. For senior high schools - a minimum site of 30 acres plus an additional acre for each 100 pupils of predicted ultimate maximum enrollment. Thus a senior high school of 1000 pupils would have a site of 40 acres.
B. **MUSIC**

(1) **Vocal** - 16 square feet per pupil

(2) **Instrumental** - 20 square feet per pupil

(3) **Practice rooms** - not less than 60 square feet

(4) **Office** - 100 square feet

(5) **Instrument storage** - 600 square feet

(6) **Ceiling heights** - 14 feet

C. **TOILETS**

(1) Should be no larger than necessary - a *5 ft. wide passage* along a row of stalls is sufficient and can include lavatories or opposite wall.

(2) **Toilet stall** 2-1/2' (See State of Illinois Accessibility Standards for specific information regarding handicapped area requirements.)

(3) Mirrors - equal in number to lavatories

(4) Mirror mounting height from floor:

   Grades K-6.....30"
   Grades 7-9.....40"
   Grades 10-12..44"
   Grades 8-12....44"

(5) Number of fixtures in general toilets -

<table>
<thead>
<tr>
<th><strong>Elementary</strong></th>
<th><strong>Jr. H.S.</strong></th>
<th><strong>H.S.</strong></th>
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<tbody>
<tr>
<td>Girls - 1 W.C. for 25</td>
<td>1 - 25</td>
<td>1 - 25</td>
</tr>
<tr>
<td>Boys - 1 W.C. for 50</td>
<td>1 - 50</td>
<td>1 - 50</td>
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</tbody>
</table>

   Urinals - 1 for each 30 boys
   Lavatories - 1 for each 50 pupils
   Drinking Fountains - 1 for each 75 pupils

(6) **Toilet Room Accessories**

   (a) Soap dispenser
   (b) Toilet paper dispenser
   (c) Mirrors not over lavatories
D. **LIBRARY**

1. **Reading Room** 30 sq. ft. per student capable of accommodating 10% of student population.

2. **Workroom Office** 200 sq. ft. sufficient shelving, cabinets, table work space.

3. **Audiovisual room** 200 sq. ft.

4. **Magazine reserve room** 100 sq. ft.

5. **Professional library** 100 sq. ft.

6. **Preview room** 200 sq. ft.

7. **Conference room** 120 sq. ft.

8. **Classrooms for library instruction** 1000 sq. ft.

9. **Production room** 100 sq. ft.

10. **Supplementary textbook room** 200 sq. ft.

11. **Shelves** - 10 books per linear ft.; 10 books per student

E. **OPERATIONAL AND MAINTENANCE SPACE**

1. **Janitors storage room with service sink on each floor** 48 sq. ft.

2. **Central quarters - shower, toilet, lavatory and locker space** 75 sq. ft.

3. **Workshop** - 200 sq. ft.

4. **Central Storage** - 160 sq. ft.

5. **Bulk Storeroom** - 200 - 400 sq. ft.
F. CAFETERIA - ELEMENTARY AND HIGH SCHOOLS

(1) Kitchen - 1-1-1/2 to 2 sq. ft. per meal

(2) Storage - 1/2 to 1 sq. ft. per meal - Shelving height limit 7'5" width between supports 48" - clearance between shelves 15" - depth 12"-18"-24" floor to the first shelf 36" - aisle space 38"-42"

(3) Dining area - 15 sq. ft. per meal - shelving quantities 1-1-1/2 sq. ft. per meal.

(4) Serving area = .05 to .07 ft. per meal - Min. 16' Max 25'. One unit of counter for each 300 elementary pupils, one unit counter for each 200 secondary pupils. .02 to .2 linear feet per meal for soiled dish counter, .015 to .02 linear feet per meal for clean dish counter.

II. ELEMENTARY SCHOOL SPACES

A. ADMINISTRATION AREA

(1) Principal's office, closet and toilet - 150 sq. ft.

(2) Built-In record storage or cabinets - 20 sq. ft.

(3) Storage supplies and books - 30 sq. ft. (approximately .25 sq. ft. per pupil for schools over 200)

(4) Duplicating Room - 60 sq. ft.

(5) Health Room - 100 sq. ft. (total area for nurse examination and waiting room - 500 sq. ft.)

(6) Waiting Room

(7) Conference room 120 sq. ft. (convenient to principal's office).

(8) Guidance - one office for every 300 pupils, one testing cubicle for every 3 counselors.

B. CLASSROOMS

<table>
<thead>
<tr>
<th>GRADE</th>
<th>DESIRABLE CLASS SIZE</th>
<th>GROSS FLOOR AREA</th>
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</thead>
<tbody>
<tr>
<td>(1)</td>
<td>Kindergarten</td>
<td>25 students</td>
</tr>
</tbody>
</table>
(2)  1-8  
30 students  
900 sq. ft.

(3) Special classroom  
12-15 students  
for Handicapped/ 
Gifted  
850-1000 sq. ft.

(4) Remedial Room  
6-10 students  
200-300 sq. ft.

(5) Storage closets for 
teachers  
20-30 sq. ft.

(6) Chalkboard  18-24 linear ft. -  
tack board 18-24 linear ft.

(7) Work Counter - 12 linear ft. -  
2' side storage underneath with 
doors.

Sink built in. Height *(1) 25", (2) 27", (3) 29", (4) 30", (5) 31", 
(6) 32", (7 & 8) 34" * Grade level

(8) Pupil Wardrobes  
(a) Recessed area or room adjacent to the classroom 
separated from the classroom itself with folding doors or part 
partition.

(b) Steel lockers built into the corridor walls outside the 
classroom.

(c) Movable wardrobes are gaining in popularity.

(9) Teachers room  10 sq. ft. for each teacher.

SPECIAL FACILITIES

(1) Elementary all-purpose room 66' x 44' - one teaching station - 
no seating

(2) Elementary all-purpose room 86' x 54' - two teaching stations -  
no seating, ceilings - elementary 16' to 18'

(3) Junior high school gymnasium 86' x 65' - two teaching stations -  
350 seats - regulation floor 42' x 74' - ceiling 18' to 28'

(4) P.E. area per student three times normal space for classroom.

Number of teaching stations - number of pupils enrolled in subject x 
number of periods per week teaching station is available.

(5) Dressing rooms and shower facilities for the upper grades for both 
boys and girls - 15 sq. ft. per pupil in class.

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(6) Stage - 608-808 sq. ft.
(7) Remedial room - 300 sq. ft.
(8) Storage - 200 sq. ft. minimum
(9) Drinking fountains - 1 for 75 pupils
(10) Water - elementary - 8 to 10 gallons per pupil

III. SECONDARY SCHOOL SPACES - AREAS

A. ADMINISTRATION AREA

(1) Principal’s Office

(a) Secretary’s office
(b) Waiting room
(c) Duplicating room
(d) Storage supplies-book
(e) Coat closet
(f) Toilet
(g) Built-in vault or cabinets

(2) Counseling

(a) Offices
(b) Outer office
(c) Storage room

(3) Teachers room with toilet adjacent - 10 sq. ft. per teacher

(4) Auditorium

B. CLASSROOM

(1) Regular Classroom - 750 sq. ft. or 25 sq. ft. per student

(2) Science 35-40 sq. ft. per student - 1000 sq. ft. including storage.

(3) Art - 30 sq. ft. per student - 1000 sq. ft. including storage.

(4) Industrial Arts

(a) One teacher department
   1) General Metal - 70-90 sq. ft. per pupil per auxiliary area.
   2) General Woodwork - 80-100
3) Transportation - 120-150 sq. ft. per pupil plus auxiliary area.
4) General Electricity - 50-60 sq. ft. per pupil plus auxiliary area.
5) Drafting - 35-50 sq. ft. per pupil plus auxiliary area.
6) Graphic Arts - 70-80 sq. ft. per pupil plus auxiliary area.
7) General Shop - 70-100 sq. ft. per pupil plus auxiliary area.

C. **AGRICULTURE** - ONE TEACHER DEPARTMENT - 4000 sq. ft.

1) Classroom - 30 sq. ft. per pupil

2) Shop area - 40' x 66'

3) Auxiliary area
   - (a) Shop storage 100 sq. ft.
   - (b) Storage 100 sq. ft.
   - (c) Conference Room 100 sq. ft.
   - (d) Restroom 88 sq. ft.
   - (e) Laboratory 192 sq. ft.

D. **HOMEMAKING** - ONE TEACHER DEPARTMENT 28' x 88' - 2240 sq. ft.

1) Food area 28 x 32

2) Living area 28 x 13

3) Clothing area 28 x 35

Two-teacher Department 3800 sq. ft. - three rooms separated by accordion type partitions.

E. **BUSINESS EDUCATION**

1) Typewriting 36 sq. ft. per pupil

2) Bookkeeping-Shorthand Room

3) Office and/or Secretarial Practice 48 sq. ft. per pupil
F.  PHYSICAL EDUCATION

(1)  Gymnasium - Senior High School

96' x 78'6".....Playing floor 84' x 50' - seating capacity 640
100' x 93'5"....Playing floor 84' x 50' - seating capacity 1078
100' x 104'5"..Playing floor 84' x 50' - seating capacity 1508

End safety zones 6' minimum - 8' preferred - side court clearance 6' minimum - 8' preferred.

Ceiling 20' to 22'

(2)  Showers

(a)  One shower head for each four pupils in class.
(b)  Five (5) sq. ft. per student in class.
(c)  Shower mounting heights - grade 7-9 girls 54"
    boys 60"
    grade 9-12 girls 56"
    boys 60"

(3)  Dressing rooms - 15 sq. ft. per student in class. Storage lockers will need more space.

(4)  Office for men and women P.E. Instructors - Individual 120 sq. ft.

(5)  Equipment drying rooms - 200 sq. ft.

(6)  Storage rooms (gymnasium equipment - 250 sq. ft. for each teaching station).

(7)  Corrective room (could be wrestling room) multi-purpose 1000 to 1500 sq. ft.

October 1989
D.C.N.
APPENDIX C
Programming and determining how educational spaces relate are the most critical phases in the initial design of a school.

Content learning will become obsolete. The focus and emphasis will be on process and application. Curriculum will change from presenting data to evaluating and synthesizing ideas, and solving "real-world" problems.

Our emphasis will change from what to learn to how to learn.

Curriculum is shifting from accent on parts and elements to an emphasis on wholes and pattern. Relationships and patterns diminish isolation and integration becomes meaningful.

Learning will be centered around ideas and problems, not fragmented into separate subject areas controlled by lock-step scheduled days.

As curriculum shifts, functional interrelationships between isolated subject areas and other activities will move beyond a mere interdisciplinary to transdisciplinary webs of linkage. For example:

- Math-Science-Home Arts
- English-Media-Theatre-Foreign Language
- Social Studies-Foreign Language-English
- Humanities-Social Studies-Government
- History-English-Science
- Home Arts-Health-Social Studies-Science
- Physical Education-Humanities-Music
- Technology will be infused in all program areas.

Independent study will be a new force in education, supplemented by small and large group activities.

Learning experiences for students will be differentiated for personal relevance rather than whole groups pursuing essentially the same answers through limited like activities.

Cooperative Learning activities are essential for students to learn collectively, fostering connection among learners and emphasizing nonlinear interaction in problem solving. An emphasis on group task performance and problem solving in the workplace calls for collaborative learning with shared responsibility for performance and evaluation.

Students, using a thematic problem solving approach, will form cross-age groups to use modes of inquiry from a variety of disciplines to define, refine, and attack problems of concern or interest to them.

Methods of assessment will change from measuring mastery of descriptive knowledge to evaluating attainment of higher-thinking skills.
Students will demonstrate mastery of learning concepts through exhibitions, demonstrations, and portfolios, rather than rote test taking.

The Regular Education Initiative (REI) will lead to collaborative teaching with general education teachers and special education teachers forming partnerships to more fully integrate special education students with the general population and to more adequately meet the needs of "at-risk" students in general education classes.

"Learning-while-doing" will become a more significant component of occupational education.

"Community" education calls for students to interact with their community. It extends education to the working world ("real world"). Such programs will revolve around "service" learning and career exploration activities with focus on real problems.

Physical Education and Athletics are different. Schools and communities will probably continue to appreciate competitive sports, but emphasis in physical education will be placed more on lifetime fitness activities and exercise physiology. Athletics may become the domain of groups outside of the schools.

Whole language rejects the separation of the various aspects of the language process. Literature, art, music, and drama are important ways to express the intertwine of process and content.

Citizens of the future will have calculators, computers, and other technology to do basic computation for them. They will instead have to recognize how to formulate mathematical problems to go about solving mathematical situations and communicate with others about those solutions.

New curricular issues may revolve around ethics, law, humanities, values, and self-awareness.
APPENDIX D
The Impact of Technology

The role of teachers of the 90's...into the 21st Century is to be the *guide on the side* rather than the *sage on the stage*. Teachers will become "coaches" of student learning.

Shifts in teaching will occur so that computer-supported collaborative learning becomes a major type of student interaction.

The focus of curriculum in the 21st Century will not be on increasing content knowledge. Instead, the emphasis will be on acquiring skills which will help the student to access the huge amount of information and data that will come at them. This will become more feasible through the use of technology.

Instructional uses of computers can be divided into three parts:

- Learning about computers (literacy, computer science, programming, theory)
- Computer-as-tool (word processing, integrated instruction, use as aid to problem solving throughout the curriculum)
- Learning using computers (CAI, interactive learning, navigating through knowledge)

Technology calls for lots of electrical access plus surge protectors.

Telecommunications will become a dominate mode of learning. Classrooms need to be wired to fiber optics. Dedicated phone lines for modems should be wired to all learning areas. RF modulators allow for computers to interface with TV screen. LCD screens allow for projecting computer images on overhead screens.

Classrooms need compact technology control stations. Labs/shops will use computers to display graphics. Computer disk storage will replace file cabinets. Health/PE will have computer controlled fitness equipment. Art will use computers, lasers, TV, robotics. Music will use synthesizers and computer graphics. Drama will benefit from computer controlled lighting and projection techniques.

Voice activated input devices are available today in advanced sciences settings and will one day be cost effective in replacing keyboarding in our school/work settings.

Each student needs his/her own study space equipped with a computer. A series of such spaces could be grouped together in pods surrounding a more highly equipped library/media center.
Students will use "electronic notebooks". Individual learning will become reality with independent study supplemented by small and large group activity.

Technology tools will increasingly be designed for use by teams rather than individuals in isolation.

Special learners and "at-risk" students show significant learning gain through the use of computers. Robotics will play a major role in allowing the severely handicapped to participate in a school setting.

"Cognition Enhancers" combine the complementary strengths of a person and information technology empowering environments and using hypermedia.

Databases, spreadsheets, and Cadd empower work environments so people can focus on higher level thinking and the creative aspects of problem solving.

Hypermedia, also a cognition enhancer, is a framework for creating an interconnected, web-like representation of symbols in the computer. The student can traverse the network along alternative paths and links seeking the right sequential stream for his/her content or goals. Hypermedia enables the integrated curriculum.

Education will become more integrated/infused with daily life in home and community. Learning can occur at home or on the job, and be interactive.

Job skills are changing dramatically due to technology. Advance technology eliminates jobs as well as creates them. Contrast the effort on the grocery store clerk versus the typist/secretary.

Business will become more involved in education and the use of technology providing expertise, equipment, and funds.

As the routine parts of work are automated, a greater proportion of decisions will require stressful ethical choices.
APPENDIX E
The following table presents guidelines for space relationships based on educational considerations.

**EDUCATIONAL FACILITY SPACE RELATIONSHIPS**

<table>
<thead>
<tr>
<th>Space</th>
<th>Near to</th>
<th>Isolated from</th>
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<tbody>
<tr>
<td>1. Administration</td>
<td>Main Entrance</td>
<td>Teacher's Workroom</td>
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<td></td>
<td>Health Suite</td>
<td>Music</td>
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<td></td>
<td></td>
<td>Shops</td>
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<td></td>
<td></td>
<td>Gymnasium</td>
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<td></td>
<td></td>
<td>Athletics</td>
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<tr>
<td>2. Art</td>
<td>Industrial Arts</td>
<td></td>
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<tr>
<td></td>
<td>Photography</td>
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<tr>
<td>3. Athletic Fields</td>
<td>Gymnasium</td>
<td>Academic Classroom</td>
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<td></td>
<td>Parking Lots</td>
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<tr>
<td></td>
<td>Street Access</td>
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<td>4. Auditorium</td>
<td>Street Access</td>
<td>Gymnasium</td>
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<td></td>
<td>Parking Lots</td>
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<td>2nd Major Entrance</td>
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<td></td>
<td>Music</td>
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<tr>
<td>5. Book Storage</td>
<td>Administration</td>
<td>General Storage</td>
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<td>Academic Classrooms</td>
<td>Custodial Storage</td>
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<td>6. Cafeteria</td>
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<td></td>
<td>Academic Classrooms</td>
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<td></td>
<td>Storage and Receiving</td>
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<td>7. Classrooms</td>
<td>Central Area</td>
<td>Music</td>
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<td></td>
<td>Library</td>
<td>Shops</td>
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<tr>
<td>8. Commercial Program</td>
<td>Administration</td>
<td>Academic Classroom</td>
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<tr>
<td>9. Commons (student)</td>
<td>Main Entrance</td>
<td>Shops</td>
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<td>Administration</td>
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<td></td>
<td>Library</td>
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<td></td>
<td>Academic Classrooms</td>
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<td>Rear and Side Entrances</td>
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<td>Cafeteria</td>
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<td></td>
<td>Auditorium</td>
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<td>10. Custodial Workroom</td>
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<tr>
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<td>Access Streets</td>
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<td>22. Main Entrance</td>
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<td>23. Parking</td>
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<td>24. Restrooms</td>
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<td>25. Science</td>
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<td>26. Service (Utilities)</td>
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<td>27. Shops (vocational)</td>
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<td>28. Storage</td>
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<td>29. Teachers' Lounge</td>
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APPENDIX F
General Ideas on Planning & Designing Schools for the 21st Century

The future will arrive ahead of schedule. Much of the future will be determined by decisions we make.

Change is inevitable. Change will be rapid and continuous. People differ in their readiness to accept change. (Innovators = 3%, Leaders = 13%, Early majority = 34%, Late majority = 34%, Resisters = 16%)

The modern shopping mall provides flexibility and variety to respond to changing demands of the consumer. Schools need the same features to meet the changing requirements of the operation.

Modern office buildings may be useful prototypes for schools. Such facilities are constructed without knowing tenants; with space to accommodate large and small firms; and with structural, mechanical, electrical systems that allow future users to arrange and rearrange to suit their needs.

Rather than placing classrooms in "egg carton" fashion along corridors, open space, as found in office buildings, may be more appropriate.

Schools will become smaller in size and more personable.

Satellite learning facilities may be the wave of future high schools. Hospitals, shopping centers, museums, research labs, factories may serve to provide a new set of on-site learning options.

Our country's population will continue to age with fewer numbers in school age categories.

School populations will become both younger and older and more ethnic and culturally diverse.

The modern school serves as a community center for educational, cultural, and recreational activities. Facilities will need to be available for programs serving the very young to the senior citizen.

School facilities should include community spaces for meetings, education, activity, food service and all need to be accessible to the handicapped.

Because of the mixture of civic, community and educational activities, environments should be varied in size, shape, color, and lighting. High-tech, yet home-like comfort should be considered.
Education will become truly lifelong; a part of life, not apart from it.

Early childhood centers and day care facilities will be incorporated with elementary school sites. (PL99-457 requires pre-school programs be in place by 1991-92 for three-four-five-year-old children with handicaps.)

Students will need individual space for study, storage, and discussions with teachers and perhaps other students. From this space the student will go to lecture rooms, labs, studios, the library, the gym, and the cafeteria, returning to the home base when desired.

The world of work will continue to shift from an industrial force to an information, service, and high-technology work force with jobs at all levels becoming more technical and sophisticated. Workers will need to manage information and work with people which will call for high-level thinking skills and adaptability.

Workers will need to shift from one job to another as many as five to seven times over the course of their careers.

Teenagers may enter the work force at earlier ages, working longer hours. Educators will need to rethink school schedules and the role of homework.

The world will continue to become more globally interdependent with increasing cultural and ethnic diversity.

Families will continue to be diverse with no single family type representing the majority of Americans.

The focus of control in education will continue to shift from the federal to the state level and from central offices to individual buildings. Teachers will need to share in decision making concerning all aspects of the local operation.

Taxpayers will continue to resist paying for schools. Alternate forms of funding will be determined with business playing a major role in this regard.

Our society will demand an even more convenient life-style, expecting all goods and services to be delivered with ease and speed and, naively, with no increase in costs.
APPENDIX 6
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The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Education.

[Signature]

Date: April 13, 1993

Director's Signature