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ABSTRACT

Thirteen articles on major topics facing school business officials in the 1980s are presented in this book. The titles and their authors are (1) "The Pursuit of Equity in Financing Public Education," by R. Craig Wood, Helene B. Jones, and William L. Riley; (2) "Facilities: Major Issues Ahead," by C. William Day; (3) "Cooperative Decision Making in Budget Preparation," by Mike Miles and Ernest Richards; (4) "Governmental Accounting and Financial Reporting during the 1980s--A Period of Transition," by R. J. Lewandowski; (5) "State Assistance to Financially Distressed School Districts," by Dennis L. Costerison; (6) "Office of the Future--Are School Business Officials Ready?" by Donald R. Johnson; (7) "Information Society in School District's Perspectives," by Martha Valerio; (8) "Small School District Perspective on School Business Management," by Orvin R. Clark; (9) "Large District Perspective on School Business Management," by John Peterburs; (10) "Risk Management and Insurance in the 80s," by Alan V. Bielen; (11) "Trouble Shooting Accounts Payables in the 80s," by Suzette S. Pope; (12) "Property Management," by Gerald R. Menefee; and (13) "School Bus Accident Investigation," by Charles T. Button and Watson I. Goodrich. (PGD)

major topics of school business management

in the mid-1980's

James E. Clark and Karl V. Hertz

Editors

Association of School Business Officials

Major Topics of School Business Management In The Mid-1980's

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Contents

Introduction

THIS BOOK SHOWCASES A NUMBER OF TOPICS related to school business management in the mid-1980's. It is intended as a relatively modest but straightforward look at the major topics of the field in 1984. The editors have attempted to draw upon the specific areas of expertise of the authors of the chapters.

The focus of the book is clearly toward business management in the school, and every effort has been made to address topics which will be of interest to these officials. In the first chapter historical perspective is given to the topic of school finance in the United States. Facility problems are then tackled. The third chapter leads the reader through cooperative decision making.

Understandably, governmental accounting draws our attention, and the state of that problem is the target of the fourth chapter. In the fifth chapter attention is directed to the state's ability to assist financially distressed school districts.

School business officials are then challenged regarding their readiness to manage the office of the future. Also, the challenges of an information society are related to the business functions of a school district. Next, we are exposed to the management techniques as they are modified in districts of different sizes.

In the final four chapters, the authors deal with very practical topics: insurance, accounts payable, property management, and school bus accident investigation. The details of these sections should prove to be most helpful.

What have we attempted to achieve in this book? Hopefully, the sincere efforts of our authors will open new avenues of inquiry to practitioners and to scholars. For the people working as business managers, we hope to have provided better cognitive maps from which strategies for management can be developed. Of course, we do not want to replace the sense of institution that our business managers must have; we merely wish to improve their intuition so they may refine current practices and develop even better ones.

Karl V. Hertz and James E. Clark

Chapter 1.
The Pursuit of Equity in Financing Public Education

R. Craig Wood, Helene B. Jones and William L. Riley

MORE THAN ANY TIME IN THE PAST school business administrators are being called on to justify the financing of public education through public tax moneys. In every state, school business managers are asked to offer expert testimony to their state legislative committees and counsel with specific advice to their legislators. Due to the intensity of the present attacks on the financing of public education it is ironic to the authors of this chapter that many state legislators during the 1980's have succumbed to various pressure groups and special interests in formulating school finance policy. These special interest groups represent the spectrum of political viewpoints. At one end of the spectrum are those that argue that public education is a monopoly. On the other end of the spectrum and based on entirely different ideological grounds, others argue that we should encourage more competition by dismantling the public educational process. Both groups agree that major changes in the manner in which education is funded would be sound for individuals and to society.

School finance has slowly but certainly become one of the most important topics comprising the educational enterprise. Practically all facets of what occurs in the educational setting are linked to finance-related concerns. School finance questions impact on local policymakers in assessing expenditure and revenue requirements. State and federal policymakers face similar problems.

Historical Setting

The financing of education developed in the pre-Revolutionary War colonies almost by chance. Early educational opportunity in the developing colonies was granted primarily to the rich whose children attended church-sponsored or private schools. Our commonly accepted philosophy

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of today, that all students should have equal educational opportunity, was extremely slow to evolve in the thinking of early colonial leaders. (Riley) In fact, education existed for the wealthy and largely not for the poor. This system of class education for the wealthy was clearly rejected by the late colonial period. It is indeed interesting to note that visionaries, such as Horace Mann and others, were persuasive in their arguments in what was then a mostly agricultural society. At this early stage the leaders of our society rejected education based on wealth and social status.

Progress was slow in this regard; early colonies, except Massachusetts, were slow to break away from the church and private school sponsoring pattern. In most colonies an appreciation for the need for universal education existed. However, a firm statement of obligation to provide education at public expense was lacking. The system of education was to a large measure one of educating the rich and some of the poor in a dual class arrangement. This system was the antithesis of the concepts for which the republic was founded. Even though Massachusetts established somewhat of a guidepost for universal education, early financing of schools continued to rely heavily on student fees and philanthropic action. Public moneys, generated by taxation, were used to cover expenses beyond the revenue from fees and gifts.

The framers of the Constitution saw fit to exclude education from the federal Constitution. However, with the ratification of the Tenth Amendment, education became a state right. The amendment, approved in 1791, stated "The powers not delegated to the United States by the constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people." Thus, public education became a responsibility of the fledgling states. Even with the provision of enabling legislation, the states were slow in developing an educational structure. The need for public education revenue was met by multi-faceted funding plans ranging from theater license revenue in Louisiana to lotteries in New York and Kentucky. (Deighton)

During the late 1800's and early 1900's the states moved toward more aid for public education. Obviously, allowing the poorer communities to fund the bulk of the educational costs resulted in a system of poor school districts. The public, as a whole, was not benefited by such a system. During the early 1900's several thoughts emerged regarding the equitable and adequate funding of public education.

Currently, the bulk of revenues for public education are generated from state income and sales taxes, as well as local taxes of various types, most notable of which is the property tax. Critics of the present method of financing public education tend to center on the concept of "benefits received." (Wood) While these individuals and pressure groups are sincere and eloquent on occasion, their attacks under the guise of tuition tax credits or tax vouchers are generally philosophical and center on the concept of "benefits received." These theorists argue that many governmental services are taxed on this basis, e.g., gasoline taxes for high-

ways, sewer and water assessment, etc. They suggest that if one does not have a child in the public school system, but in a private school, parents are being taxed twice as they pay the school tax as well as the private school tuition. It is important to note by school business administrators, as well as the public in general, that our society has never financed public education based on direct benefits to the individual. Our society finances public education based on the principle of benefits received to society as a whole, as opposed to the individual. The question is one of a public good versus that of a private good. To finance education based on a private good, or simply on the perceived potential benefits to the individual, would be the antithesis of public education and detrimental to society as a whole. Public education is so important that we do not leave it to the individual. Benefits are received by society, therefore, society must pay regardless of the individual perception of direct or indirect benefits. As a whole, public education benefits society ranging from lower crime rates to an increased knowledge by the general citizenry. To suggest that an individual has not, or will not, benefit from public education is ludicrous.

The two most positive and productive public expenses for the society are for public education and for medical care/research. These two vital public undertakings produce significant economic returns on investments as reflected in numerous scholarly studies. To argue that one should not pay for public education due to not directly benefiting is as weak as suggesting that one should not pay taxes for medical care/research as they have not been ill lately.

It is indeed interesting to note that in 1895 the great English philosopher John Stuart Mill rejected the idea of financing education on the basis of direct benefits received. It should also be noted that most states decided the issue of funding public education by the entire citizenry during the late 1880's. The issue is one which will continue to be on the forefront during the 1980's. A critical examination of many of these arguments reveals an attack on paying any moneys toward public education regardless of the mechanism or source of taxation. (Wood)

The Concept of Fiscal Equity

Elwood Cubberly, in 1902, was the first to suggest the concept of fiscal equalization of educational opportunity. Cubberly believed all students to be equally important and entitled to the same educational advantages. His approach to the basic distribution of state aid has been termed the "flat grant" approach, being a minimum dollar guarantee for each student or teacher in a school district. In 1922 Harlan Updegraff suggested a different type of state aid program based on local taxing effort for education. His "variable" distribution program would reward districts exerting great local effort and penalize those making a low effort. Currently, the Updegraff formula is called "district power equalization" and permits the local school district to determine the per-pupil level of

fiscal support which will be jointly funded from state and local revenues. (Guthrie)

In 1923 Robert Strayer and George Haig proposed an alternative to Cubberly's "flat grant" approach. Strayer and Haig were concerned that state programs of school support needed to provide a minimal program of educational opportunities for each student, and the tax burden should be paid by individual school districts based on their ability to pay. Strayer and Haig proposed an equalization formula which is popularly known as the "minimum foundation program." Mort, in implementing the Strayer-Haig plans in numerous states suggested that objective measures of educational needs should be a primary component of the funding formula.

In 1930, Henry Morrison, in a significant break from his contemporaries, abandoned the equalization formulas. In noting the inverse relationship between district wealth and per-pupil expenditures, he proposed "full state funding." In 1960 Roe L. Johns and Edgar Morphet suggested that equal educational opportunity meant that every person should not necessarily have the same program of education.

The Emerging Concept of Fiscal Equity

These earlier "definitions" of the concept of fiscal equity were concerned with the equalization of educational opportunity with the pupil as the central figure of concern. In the late 1960's the country experienced great social strife and pressures creating an impetus for a greater level of civil rights. Both federal and state courts were asked to review the concept of equalization of educational opportunity. The concept is still being debated in several state judiciaries.

The complexity of equalization of educational opportunity is two-fold to school business administrators and researchers. Educational finance researchers have yet to fully agree on what is to be equalized or how to measure it. Such questions are obviously laden with individual judgments and opinions.

Recent attempts to provide a clear and concise meaning of fiscal equity have focused on education finance research concepts of horizontal and vertical equity. The first is concerned with the equal treatment of equals, i.e., equality among groups of equals, while the latter is concerned with unequal treatment of unequals, i.e., differences are recognized among groups. In most state assessments of educational finance programs, horizontal equity analysis is desired as opposed to vertical analysis, as the latter generally pertains to special programs. (Jones)

The "equal treatment of equals" principle is centered on disparities in per-pupil revenues among school districts within a state. From the perspective of education finance researchers, fiscal equity would require equal per-pupil revenues among school districts. The second principle

that forms the definition of fiscal equity is "equal yield for equal effort." The evaluation of this principle has been universally overlooked by studies evaluating the fiscal equity of school finance programs. In essence, the equal yield for equal effort principle requires that each school district tax itself at the identical fiscal effort as for all other school districts and receive equal revenues for each pupil.

Both the "Per-Pupil Revenue Disparity" and "Fiscal Effort Neutrality" criteria are measures of fiscal equity, yet there is another eduational principle which deserves attention, although it should not be considered a criterion of fiscal equity. This is called the Fiscal Capacity Variance and is a contributing factor of fiscal equity. The Fiscal Capacity Variance standard is referred to often in the literature as the "wealth neutrality" or "equal opportunity" standard. Fiscal Capacity Variance is concerned with the relationship between the per-pupil wealth and per-pupil revenues of the local school districts.

Fiscal Equity Definition

The essence of fiscal equity is that a student's access to educational revenues should not differ substantially from locality to locality. Fiscal equity can be divided into (1) Per-Pupil Revenue Disparity: the difference between educational revenues per pupil from one locality to another, and (2) Fiscal Effort Neutrality: an examination of the taxpayer's burden, and whether the pupils of each school district are provided comparable revenue for comparable fiscal effort. Thus, the examination of fiscal equity among the school districts of a state use the Per-Pupil Disparity and Fiscal Effort Neutrality as the criteria for fiscal equity. Additionally, the relationship which exists between the fiscal capacity and wealth of the school district and per-pupil revenues are investigated through the application of the Fiscal Capacity Variance Standard. The various statistical techniques selected which measure fiscal equity are displayed in Table 1. Table 2 reflects the statistical dispersion measures commonly used to assess horizontal equity in school finance.

Conclusion

This chapter has presented an introductory overview of the statistical measures used to evaluate state aid formulas in terms of fiscal equity. It is necessary for school business administrators to be conversant with such measures to offer expert advice and counsel when asked by policymakers. Traditionally, school business administrators have been more concerned with the adequacy of moneys rather than the equity of its dispersal. While adequacy is of utmost importance, the equitable dispersal of state and federal moneys directly affects the adequacy of moneys for every school district within all states. Revenue disparities per pupil and the wide range of local leeway moneys will heavily influence fiscal equity considerations.

TABLE 1

Fiscal Equity Definition/Measure Summary Table

Measure/Statistic	Definition/Explanation	Rationale for Selection
I. Per-Pupil Revenue Disparity Criterion		
1. Coefficient of Variation	The standard deviation of a distribution divided by the mean, expressed as a percentage. The distribution is made up of local revenue per-student values for each school district. As the coefficient of variation approaches zero, equality becomes greater.	The concept of variance played a major role in the landmark SERRANO case. The coefficient of variation includes observations on all pupils in the state, is insensitive to uniform inflation, and is noted throughout education finance literature as a major analytical tool.
2. McLoone Index	The percent of current revenues required to reise the expenditure level per-pupil unit to the state median level. Expressed at the ratio of the actual revenues of students below the median to the total, if all students were at the median. The closer a McLoone Index is to 1, the greater the equality for the bottom half of the distribution.	The McLoone Index focuses on the bottom half of the distribution. A primary concern of many education finance programs is to "level up" the bottom half of the distribution.
3. Federal Range Ratio	The difference between the 95th and the 5th percentiles divided by the value at the 5th percentile. Local revenues per student for each school district make up the distribution. The closer the ratio is to 1, the more equitable the distribution of revenues.	The Federal Range Ratio is the only dispersion measure utilized in federal school finance laws. It is relatively simple to calculate, interpret, and understand.

4. Gini Index and Lorenz Curve	The Gini Coefficient indicates how far the distribution of revenues is from providing each proportion of students with equal proportions of revenues. Values for the Gini Coefficient fall between 1.0 and 0.0. As the Gini Index approaches 0.0 the degree of equity increases.	The entire distribution is taken into account, it is not affected by uniform inflation, and is cited by numerous education finance authorities as a major analytical tool. All levels of the distribution are compared to one another as a basis for comparison rather than to a measure of central tendency.
II. Fiscal Effort Neutrality Criterion		
Federal Wealth Neutrality Test	A system of determining which portion of a revenue classification is derived from a wealth advantage and which is not. The greater percentage of wealth neutral funds, the more wealth neutral the school financing system.	This is currently the only measure by which the "equal yield for equal effort" principle can be comprehensively examined.
III. Fiscal Capacity Variance		
Regression Analysis Techniques	Regression analysis techniques including the simple correlation, slope, and elasticity will be employed to examine the relationship between local per-pupil revenues and local per-pupil wealth. The less relationship that exists between wealth and revenue, the more fiscally neutral the school financing system.	Regression analysis is a relatively universal technique for examining the relationship between two variables. Regression based measures are often used to assess the equal opportunity principle (fiscal neutrality) in school finance.
Modified Gini Index and Lorenz Curve	Is exactly the same as the Gini Index, except that a third dimension is added. When plotting the vertical axis, the dimension of wealth is added.	Same as the Gini Index.

TABLE 2

Statistical Dispersion Measures Commonly Used to Assess Horizontal Equity in School Finance

Statistical Measure	Explanation
Range	the difference between the highest and the lowest observation per pupil. The lower the source, the closer to fiscal equity.
Restricted Range	the difference between two specific points in the distribution—the 95th and 5th percentiles. The lower the value, the closer to fiscal equity.
Federal Range Ratio	the difference in per-pupil expenditures/revenues at the 5th and 95th percentiles expressed in a ratio—or the restricted range divided by the value at the 5th percentile. The ratio can assume any value greater than or equal to 1 and is a measure of the disparity between two groups of pupils. The closer the ratio is to 1, the closer to fiscal equity.
Relative Mean Deviation	the absolute value of the sum of differences of each revenue figure from the mean revenue, as a proportion of total revenue, e.g., the value of differences between each district's per-pupil revenues and mean per-pupil revenues, divided by total revenues in the distribution. The smaller the value, the closer to fiscal equity.
McLoone Index	the ratio of the actual total revenues of students below the median to the total revenues, if all students were at the median. The larger the index, the closer to fiscal equity.
Variance	the average of the squared deviations of each revenue figure from the mean revenue. The smaller the score, the closer to fiscal equity.
Coefficient of Variation	the standard deviation divided by the mean. It determines fiscal equity relative to the mean of the distribution. The smaller the coefficient variation (as it approaches zero), the closer to fiscal equity.
Standard Deviation of Logarithms	the square root of the variance of the logarithms of revenues. The smaller the score, the closer to fiscal equity.
Gini Coefficient	reveals how far the distribution of revenues is from providing each proportion of students with the same proportion of revenues, e.g., 10% of students with 10% of revenues. The smaller the score, the closer to fiscal equity.
Theil Measure (coefficient)	shows how far each pupil is from receiving an equal share of revenues. The smaller the value, the closer to fiscal equity.
Atkinson's Index	based on the economists' concept of social welfare function it has the advantage of being able to weight the bottom of the distribution to reflect value judgments of the evaluators. The smaller the value, the closer to fiscal equity.

*Sources: Adapted from:
(1) "Equity in School Finance" Odden and Berne, 1979, p. 19-20.
(2) "Equity in Financing Schools" Guthrie, 1980.

Small, rural school districts and large inner city urban school districts often suffer due to such disparities.

The authors of this chapter would suggest that wealth differences among school districts will likely continue in many states. The present strain on state and local budgets will perhaps insure this result. Regardless of the status of state and local budgets, these wealth differences will not be eliminated. Most assuredly, with the influence of school business administrators the effect of wealth differences must be minimized.

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Chapter 2.
Facilities: Major Issues Ahead

C. William Day

ANYTHING WHICH CAN BE DONE IN THE PLANNING of educational facilities to forecast possible changes so that they may easily be made when the time comes will be a wise investment of time and money. Futuristic planning of educational facilities is needed for effective learning and utilization of human and physical resources. Conscientious planners have long asserted that environment—both physical and social—contributes to learning and that any effective learning environment must be planned to fit specific needs.

Among the reasons for futuristic planning are the increase of content in many subject fields, the changeability of methods of teaching, and the fluctuation of organizational patterns within our school districts, combined with changes in the society the schools serve. Someone has said that there are only three kinds of minds—yesterday, today, and tomorrow. The best possible resource for planning for the future is an aggregation of tomorrow's minds.

School Closings

One of the most frustrating issues that school administrators encounter is the dilemma of declining enrollment. This dilemma has faced educators only in the past decade during which over seven thousand school buildings have been closed. Public school enrollment reached an all-time high of over 46 million in 1971, plunged to 40 million in 1981 and is projected to drop to 39 million by the fall of 1984 (American Education, 1983).

School closure is a technically complex and emotionally volatile issue. Talking about the possibility creates fears, hostility, and organized opposition. While community conflict cannot be avoided, it can be controlled by intelligent leadership by educators and the board of education. The art of controlling conflicts is one that requires a great deal of time, effort, and patience. Assistance from many segments of the community is necessary. What may be effective in one community may not be effective

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in another. Decisions must be made early, about:

1. Who will be involved? (Citizens, board members, administrators, faculty, consultants.)
2. What types of information need to be generated? (Program offerings, personnel, transportation, enrollment history, attendance boundaries, building history, etc.)
3. How will the report be organized? (Demographics, curriculum, grade organizations, facility analysis, transportation, financial, etc.)
4. How will the finished report be disseminated? (Board, public meeting, media, etc.)

If prior experience tells us anything, it is to take time to cover all bases before making a decision. School patrons do not like surprises when it comes to closing schools. Talks with as many service clubs, PTA/PTO groups and other community agencies about possible school closings should begin even before committees are formulated. Educators have a wealth of information that is hardly ever shared with the school community. The cost of decline should be shared with the community on a per building basis, in the following manner:

1. Enrollment trends over the past five years.
2. Utility cost per square foot.
3. Maintenance cost per square foot.
4. Total personnel cost per student.
5. Utility cost per student.
6. Maintenance cost per student.
7. Student/teacher ratio.
8. Loss of state aid, if any.
9. Mandated program(s) cost, if any.
10. Other new program(s) cost, if any.
11. Building enrollment.
12. Building capacity.

There are also a few matters to be avoided in the area of school closings:

1. Don't tell the public that school closings will save money.
2. Don't tell the public you are going to tear the building down.
3. Don't hold executive sessions.
4. Don't count on overwhelming support for your plan from people in areas where no schools are slated to be closed.
5. Don't allow residents to claim that they were not heard during reorganization deliberations.
6. Don't hold anything back.

School closings will probably never win anyone a community popularity contest, even under the best of conditions. However, following some simple things to do or not do should help enhance the effort.

Interagency Use of Public Facilities

Awareness and understanding of interagency use of public facilities have been limited by the perceptions of growth and abundance which American society has held for so many years. Thus, most public facilities have been developed for a single purpose such as school, library, town hall, or recreation. Further, most public planning has been conducted with individual agencies working in isolation from one another which perpetuates the singular nature of public facility usage.

Most citizens, public administrators, and decision makers are not really aware of the concept of interagency use of public facilities, its benefits, or its limitations. They also lack a basic understanding of how this concept might be pursued in any local setting. Thus we continue to find new city/county buildings, libraries, senior citizen centers, or other public facilities being built near comparable facilities abandoned by other agencies, such as public schools.

Changing demographic, economic, and fiscal conditions, as well as public attitudes, present unparalleled challenges in the years ahead. The efficiency and utility of the public sector in the future may well depend upon how wisely public resources are shared and used.

The issue is not just excess or surplus space. Several years ago, a story emerged which highlighted the problem. It talked of a city in which an educational system had more than 250,000 square feet of excess space, but in which four other public agencies were paying over $1 million annually to rent slightly less than 250,000 square feet of privately owned space, more than half of which was used for child care, recreation, counseling, and other special services.

This concept "interagency use" or "joint occupancy," if at all workable within the specific circumstances of a local district's space situation, appears to offer the most positive and supportable use of surplus school facilities. A school district considering a program of this type must address five major concerns:

1. Determining what constitutes surplus space.
2. Assigning administrative staff to oversee the project.
3. Ranking types of tenants according to their "desirability" to the school system.
4. Setting up a fee structure for renters.
5. Writing an agreement that clearly describes the responsibility of both landlord and tenant.

Effective communication and cooperation are essential if interagency use of public facilities to maximize dollars and space is to become a reality. Thus we must find ways to break down the artificial barriers that we have created. Until schools and public agencies learn to better communicate and cooperate between and among themselves, they will be limited in their ability to not only use public facilities most effectively and

efficiently, but also in their ability to best address contemporary public concerns.

Modernization

After school districts have identified those buildings they no longer need and have either closed, sold, or leased them, action must be taken to preserve the tremendous investment we have in our current facilities. Managers of current and future facilities need some benchmarks, some points from which to measure, and some guidelines to assist them in making decisions to modernize or replace existing buildings. There is no single, simple answer, but several considerations, taken together, may yield a composite answer.

1. Where does this building fit in the long-range plan? Does the long-range plan show a need for this type of facility in this general location throughout the foreseeable future?
2. Can this building be modernized to meet current and future educational needs?
3. Are the needed changes economically and educationally feasible? Can the site be enlarged if necessary? Can an addition be built at a place where it would function with the remaining building?
4. How many years will the estimated life of the building be prolonged? Will changes that cannot be made cause educational obsolescence to recur within a few years?
5. What will be the comparative costs? Perhaps the best basis for judging this is to find the unit cost per pupil per year, both for the modernized building and for the new building that would replace it.
6. Does the building have an historical value?
7. What will the community support?

By the year 1985, fifty percent of all construction dollars will be spent on additions and modernization of existing educational facilities. School boards and administrators will face the additional burden of finding money for preventive maintenance. With colossal expenditures for previous construction, administrators will be faced with the challenge of protecting their investment in existing buildings. It is not too late for the prudent business manager to develop a program to evaluate all of the buildings in the school district to determine what could be accomplished in the next few years that will not only extend the useful life of the buildings but make them better educational environments. Educators in this country have had a tendency to wait until major problems with existing buildings occur before attempting to convince the board of education and/or public of the need for additional monies for improvements. With the ever-changing demands of curriculum and the increase in the use of schools for other activities and programs, educators will be forced to upgrade existing facilities.

Energy Conservation

Energy conservation will continue to be an important trend in the development of educational facilities. Since operating costs can exceed capital costs within a few years, some educational institutions will elect to replace excessive energy consumers with more efficient systems. The public demand for more efficient and cost-effective energy systems is intense. As a result, new and better systems are continually appearing on the marketplace. More and more, we will see the use of active and passive solar energy systems, alternative fuel sources, and new mechanical-electrical concepts, such as heat recovery, heat pumps and heat storage. Energy conservation will be a key element in the design of new facilities with the use of earth berms and more consideration being given to building orientation and micro-climates. The competition to provide more efficient energy sources and systems is there; it's intense and it will be successful.

More attention will be given to energy management. Energy management considers not only the energy consuming system, but also the function it performs and the way that function affects or is affected by the system. This all sounds simple enough, and it is. Nonetheless, the basic precepts of energy management all too often go overlooked because energy conservation is paramount. For example, one can reduce the number of lamps to save energy dollars, but will soon find the cost of the extra central heating needed to make up for the lost heat of light may result in a net increase in energy cost. In the future, microprocessors will assist with energy cost. In the future, microprocessors, to assist with energy management, will be as much a part of the school building as students and staff.

Asset Management

Most school districts do not capitalize on their many under-used assets. Asset management is a planned, aggressive program of generating income from all available school properties when they are not in use, which in most school districts is a considerable portion of the time.

Analyze just a few of the money-making possibilities available in most of the schools today. Kitchens that could be leased to catering firms during vacations, off-hours, or weekends. Pools that could be leased to private clubs for several hours a week would produce a considerable amount of income. How about computers, hardware and software, for leasing during off-peak hours? Gymnasiums could be available on Saturdays and Sundays for all types of functions. Auditoriums and theaters could be leased for many different activities. Also, consider buses, print shops, carpentry shops, auto body repair shops, and general classrooms all are areas that offer potential revenue.

School districts need to develop a comprehensive plan for identifying

available assets. Once these have been identified then an aggressive plan to market them should be initiated. The process of developing an asset management plan must start with the agreement of the superintendent and school board to commit the school district to its development. Once this commitment is made then the following steps should be taken:

1. Review state and local laws and ordinances
2. Inventory assets
3. Identify times when assets are available
4. Develop a list of possible clients
5. Develop a marketing plan
6. Develop a set of general guidelines
7. Establish specific, detailed guidelines for users

Time will be required to make an asset management program work smoothly. It is certain that problems will arise. Some of the most common ones will be:

1. Inconvenience
2. Property damage and personal injury
3. Municipal ordinances and state laws
4. Neighborhood opposition
5. Parking
6. Conflict of interest

However, even with the perceived problems the plan is worthy of consideration.

Computer Management

In the years ahead facility management will depend more and more on the use of computers. The computer will enable us to place all maintenance and custodial related information into a data bank and utilize this information to make a variety of decisions. Facilities, equipment inventories, service schedules, maintenance and operations needs, job descriptions, personnel records, purchasing and related items are all examples of decisons computers can help us make.

The Shape of Schools to Come

As the 21st Century approaches the question is asked, "What will educational facilities be like in the year 2000 plus?" Many currently existing facilities and new ones designed much like them will be used. The same kind of teachers will be teaching many of the same courses and maybe with less money to spend. Change will come, but as always, it will be slow. Here are what appear to be some slow-warming trends that will influence school building design and distinguish future buildings from those that have served us so well in the past. Administrators will devote

more time to the educational programming of facilities. Due to public demand for more accountability, the amount of money available and the uncertainty of demographic projections, architects will give more attention to form, shape, surfaces, and materials. Additional effort will be put into master planning, protection of the natural environment, creation of more humanistic surroundings, and low maintenance facilities.

Great spaces. For years educational facilities have projected an image of cold, gray and impersonal institutions. Today, innovations are emerging such as atriums, skyways, student malls, and outdoor learning laboratories that provide more warm and personal spaces for people. In parts of this country, compact buildings have become the rule, and architects are feeling the need to provide spatial relief for the users. Where climate permits, clusters of smaller buildings can take advantage of natural lighting and ventilation at a more economical cost.

Regional style. There was a time when buildings could be more readily identified as schools. More and more school buildings are being designed to reflect the flavor of a geographic area rather than to fit the public image of what a school should look like. Regional characterization, designing a building with strong consideration for local materials, traditions, values and climate has become, and will continue to be a high priority as architects design the learning spaces of the future.

Organizational patterns. Many conflicting claims . . . been made in recent years germane to the relative advantages and disadvantages of grade organization. To most, except the purist, grade structure has little to do with student achievement. The building administrator and faculty will have more to do with student achievement than will the manner in which grades are organized. We will become much more dynamic, at the local level, in grade organization. Declining secondary enrollments will provide an opportunity to move additional grade(s) into high school facilities. Additions to some buildings will permit bringing kindergarten through eighth grade under a single roof. An addition can be added to permit joint use areas to separate the lower grades from the upper, thus permitting one building to house two schools. Flexibility and openness to change will be essential.

Summary

As we move toward the twenty-first century, it will be essential that we rearrange the way we use our facilities, resources, and people. Surplus space must be identified and other uses found. Interagency use and joint occupancy must be given serious consideration. Capital expenditures of the past must be protected by placing more dollars into deferred maintenance, modernization and additions. The search for economical and efficient energy systems will continue.

Architects will become more sensitive to creating humanistic learning environments for our students. Grade organization patterns will

change periodically as school districts attempt to keep large expensive buildings operating. Business managers have a delightful challenge ahead of them.

Chapter 3.
Cooperative Decision Making In Budget Preparation

Mike Miles and Ernest Richards

Introduction

THE DEMAND FOR ACCOUNTABILITY IN EDUCATION has hit no one segment harder than the school business management area. The school business official/principal was the first administrative position established by school boards in America. The duties included keeping the books and maintaining discipline. The first recorded employment of a full-time business administrator can be traced to Cleveland in 1841 when the city council hired an "acting manager" to keep the books, prepare the payroll, and care for the building. Cleveland did not actually employ a superintendent until twelve years later. The initial interest on the part of employing officials resulted in administrators for "school business" who were more interested in financial matters than they were in the educational program. The business official was not expected to assume responsibility for the development of the educational program.[1] The business official's role seemed relegated to one of managing fiscal resources and reporting to the superintendent or the board of education until the team management concept came into use and the responsibility for accurate projections concerning population, finances, staff and facilities became the responsibility of the business official. No longer is it enough to maintain accurate data on revenues, expenditures, transportation, facilities, etc. It is now necessary to provide all segments of the educational system with reliable data and for the business official to assume an equal share of responsibility in educational planning.

Fred Hill, in *The School Business Administrator*, 1982[2] quotes from the AASA's report on "Profiles of the Administrative Team" to describe the role of the school business official.

[1] K. Forbis Jordan, "School Business Administration." (N.Y. Ronald Press, 1969).
[2] Frederick W. Hill, "The School Business Administrator." 3rd Edition, (Association of School Business Officials, 1982).

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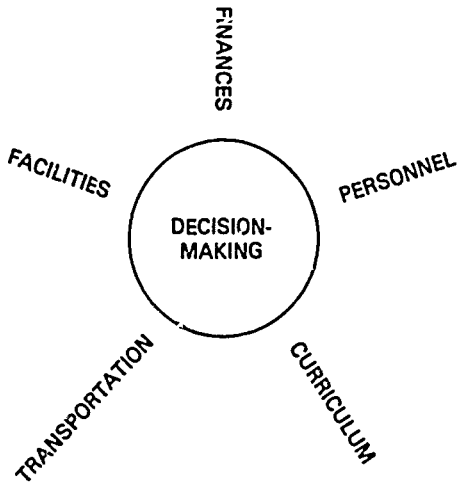
FIGURE 1

Components of the Decision Making Model



"The administrator for business affairs, who once played a semi-clerical role as the handler of administrative details for the board of education, has evolved into a highly specialized and important member of the superintendent's administrative team. The effective incumbent in this position today is a leader who is well trained and competent in decision-making. He has high-level managerial responsibilities as well as staff responsibilities as an adviser to the superintendent concerning financial affairs and matters of general importance to the educational program. He is at the same time a specialist in the financial operation of the system, a director of the logistical support component of the system, a consultant and adviser to the instructional and administrative staff, an implementer of innovations in financial planning and operations, a practitioner of good public and human relations, and an active participant in the decision-making and policy-development processes within the system."

Fred Hill also refers to the expanded role of the business official in assuming a proportionate share of responsibility for solving many problems which are outside the so called normal boundaries of business affairs. The business manager must be both a specialist in the business aspects and implications of decision-making and a generalist in the broader aspects of school administration.

Decision Making

The need for planning data requires the use of computers to store and manipulate data. Figure 1 illustrates the components in the system.

Decision making in an era of accountability and declining resources must move away from the incremental/departmental style to a more comprehensive approach. In the past the main concern of administrators was, "Do we have the finances to carry out the program?" Accountability has now forced the questions, "Is this proposal a viable program for our institution?" and "Do we have the resources both now and in the future to originate and sustain the project as a quality program?"

The decision making model is broken down by components in Figure 2.

The business official has the responsibility to provide data and professional expertise in all of the above areas. An example is the costing out of a program for the next five years. The components needed for the projection are: $pc = \frac{p+f+t+e}{s}$ [pc (program cost) $= p$ (personnel salary + fringe benefits by subject) + f (facility maintenance and operation costs) + t (transportation) + e (equipment/material) : by number of students].

The second step involves revenue projection of local, state, and federal funds. $r = lf + sf + ff$. The total cost of the program is determined in step one. Step two provides data needed to determine local costs. $pc - ff = lc$ (program cost − federal funding = local cost) or if state funding is supplemental program funding the formula would be $pc - (ff + ss) = lc$ (Program cost − federal and state funding = local cost).

This form of decison making data is used extensively in "the Educational Resource Allocation-Utilization System," a management model for decision making introduced by Sam W. Bliss and William H. Curtis.[3] It is an educational management model which is designed to assist administrators to plan and make decisions regarding educational needs, goals, performance standards, programs, resources and their attendant costs and program evaluation.

The application of this model is dependent upon accurate data both past and projected. The business official is involved in the collection and generation of ninety percent of this data and is responsible for its accuracy and interpretation. The district has fixed revenue, and this method of budget allocation allows innovation and exemplary programs on a building by building basis.

[3] Sam. W. Bliss, The Educational Resource Allocation-Utilization System: An Educational Management Model with Computer Software Support—A Synopsis (a speech at Northern Arizona University's Micro-Computer Workshop 7-83).

FIGURE 2

Decision making component listing

Personnel

Students by grade level
- Current and past enrollment
- Future enrollment (10 years minimum)—birth rate, construction trends, age and characteristics of the community.
- Special need students; current and past enrollment
- Special need students; future enrollment

Professional and classified staff
- Current and past data
  - Pupil personnel ratio by department, school, or unit
  - Professional/classified ratio by department school or unit, including extra pay for extra duties and substitute cost
  - Salary schedules; personnel placement on schedule, total costs, and percentages of budget
  - Fringe benefits; history, type, costs
  - Contracted professional and classified staff
- Future data
  - Enrollment projection; regular and special need students
  - Pupil/personnel ratio desired = number of personnel by department
  - Professional/classified ratio desired = number of personnel by department
  - Salary schedule placement and costs
  - Fringe benefits, type and cost

Curriculum
- Current and past data
  - Programs; purpose, subjects in program, number of professional and classified staff by program, number of pupils by subject in program, physical needs, supplies, costs.
- Future data
  - Programs, purpose, subjects in program, number of professional and classified staff by program, number of pupils by subject in program, physical needs, supplies, costs.

Transportation
- Current and past data
  - Daily routes; number and mileage, number of riders, cost per rider, and cost per mile, number of drivers, number and age of buses, total cost of program, special trips; purpose of trips, number, mileage and number of students per trip by program, cost per trip by program and total cost by program.
- Future data
  - Daily route; projection expanding on all current information, bus purchases by year, maintenance costs by year, total costs.
  - Special trips; purpose of trips, expanding on current data to estimate future costs of current programs, costs of proposed programs.

Facilities
- Current and past data
  - Buildings and grounds; acquisition data, size, purpose, maintenance and

FIGURE 2 Con't.

repair, utility usage and cost, bonding election record, dates, amount, percentage of people voting.

Future data

Buildings and grounds; life expectancy, purpose, renovation plans and costs, utility usage and cost.

Finances

Current and past data

Revenues; local, state, federal, by program and pupil, history of local option elections, dates, amount, voting percentage

Fixed assets; buildings, grounds, and equipment

Expenditures; by program and by pupil using fund, function, and object accounting.

Future data

Revenues; local, state, federal by program and pupil

Fixed assets; buildings, grounds and equipment

Chapter 4.
Governmental Accounting and Financial Reporting During the 1980's: A Period of Transition

R. J. Lewandowski

ACCOUNTING AND THE FINANCIAL REPORTING of school districts' funds appropriated by the taxpayers and elected officials for the education of children are being questioned and scrutinized with greater intensity than ever before. Education is in the forefront of the news. Administrators are being challenged on their financial spending as well as the administration of the same. It has been said that programs and teaching must be vastly improved. Unfortunately, the source of income remains the same.

In the financial area of education, which is the prime responsibility we as business officials and administrators are faced with, achieving the goals and objectives of education with fewer dollars is our mission. Impossible you say? Not really, if you look back to years when enrollments were up, finances were not a problem. Programs were developed, approved, and implemented. Staff was added and no one questioned the result or effectiveness of the programs or finances. Over the years, however, enrollment has been declining and staff has been reduced to achieve financial savings. Staff and programs that were once deemed absolutely essential are now being scrutinized and regarded as not being cost-effective or beneficial to the education of our children. In view of the past track record of programs and finances, the business official and administrator must now carefully question and evaluate proposed programs with regard to financial efficiency as well as the value of the funds expended for educational purposes and facilities. These programs must now be evaluated for their effectiveness and include such items as the operational costs, maintenance, etc.

The school business official must be ever aware of the responsibility of his or her stewardship. State and local legislators are acknowledging that financial reports must be modernized to conform to the requests of

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the taxpayers. Governmental bond rating agencies and financial institutions' standards on accounting and financial reporting are in place. However, changes are being made constantly to update these standards.

Governmental objectives, be they school district, municipal, county, state or federal, differ from the private sector or enterprises. These differences have influenced the development of governmental and financial reporting. To quote from the 1980 edition of the "Blue Book" on governmental and financial reporting, these factors are as follows:

1. "The absence of a significant performance assessment capacity.
2. The absence of a 'harmony of purpose control factor'.
3. Involuntary resource providers and largely monopolistic services.
4. The pervasive influence of the political process.
5. The governments relative lack of leadership continuity.
6. The role of annual operating budget.
7. Annual budgetary cycle incentives to inefficiency.
8. The insider/outsider of governing boards.
9. The domination of finance—related legal and contractual provisions."

The foregoing nine points cover a multitude of obligations; however, they are a fact of life in a governmental operation. To say that any one or all nine points are frustrating to the official in government and charged with the administration of public funds and responsible for same is understating the case. These nine points have to be dealt with on a daily basis if one is to accomplish the end result.

This result is the accounting and reporting of the business officials stewardship to the taxpayer and community since they are the employers. Much is being said today regarding the education of our children in the public schools. This criticism will continue until changes are made in teaching, etc. Criticism is also being levelled at the school administrators and officials as it pertains to the stewardship and financial reporting of the public funds.

The accounting profession and financial institutions are becoming more involved and concerned with government today on all levels be it local, state, or federal. Interpretations and pronouncement relative to financial reporting are the concern of the accounting profession such as the American Institute of Certified Public Accountants (AICPA), the Municipal Finance Officers Association (MFOA), the National Council on Governmental Accounting (NCGA), etc. to name a few. The pronouncements and interpretations are not one time issues. They are on-going and in fact all the professional organizations are endorsing the creation of the Governmental Accounting Standards Board (GASB). GASB will prepare and issue to all governmental units, pronouncements and interpretations on governmental accounting and reporting of finances. There will be a twenty-member advisory council (GASAC) appointed to the GASB Board. (ASBO will be represented.) As drafts are made on accounting

policy for governmental reporting, local, state, and federal governments will have access to their representative on the council as to input, before it is finalized by the GASB. It might be asked why a twenty-member advisory council? These members represent the local school districts, municipalities, counties, states, and federal government, to name a few, each having differences in its governmental unit as to reporting and legal requirements. The council and board objective is to gain uniformity for all governmental units in financial reporting.

One thing that is encouraging, as it relates to school district reporting, is that more and more states are adopting Handbook II B(R). This is a step in uniformity in financial reporting. The GAAFR principles and the certificate of excellence in financial reporting, being actively promoted by ASBO since 1980, is a step in the right direction and is headed towards uniform financial reporting. We as school business officials and administrators are a step ahead of the national criticism in education. We have the tools set in place and motion for progress, i.e., the GAAFR principles, certificate of excellence program, advisory council to the GASB. One only needs to take advantage of these offerings and set them into motion in our daily operation. The school administrator or official that does not take advantage now will be at a great disadvantage in the future.

Having been deeply involved in the GAAFR workshops, Certificate of Excellence Program, for a number of years, I can personally testify that the program works and can be achieved in short order. I have observed critics that stated the program was not worth the effort or it took too much effort with limited staff to accomplish the goals of the ASBO programs. I have also seen the believers who tried for the first time to qualify for the Certificate of Excellence and subsequently obtained it. The testimonials from the districts that received the award are overwhelmingly in favor of their value and worth to the district. The bond rating firms, in particular Standard & Poors, have issued a position paper relative to financial reporting by governmental districts. The primary reason is their concern in evaluating financial statistics, etc. for bond rating purposes. These ratings determine your effective interest rates when the district attempts to sell bonds. A lot of school districts are not attempting to sell bonds because of declining enrollments and the loss of tax dollars to finance bonds. However, as enrollments have declined over the past ten to fifteen years, so will they rise. Facilities and financing will be required to budget these items in the future. The financial reporting requirements will be more sophisticated in the future to obtain the necessary financing of a school district. To quote an old cliche, "the cookie jar approach to budgeting and financial reporting are passé." The elected officials, the taxpayers, the financial institutions, etc. want "accountability" and responsibility for those in charge of governmental funds.

An item that is sometimes monetarily insignificant to a school district but one that causes considerable concern to the board of education and

the community is that of student activity funds. In some districts these funds are minimal. In others they are quite sizeable. However, whether they are small or large, they cause the same problem. These funds have been discussed at every national and state conference that I have attended over the past years. These funds must be given the same attention as budgeted tax dollars in financial reporting and accounting. These funds are over and above what the taxpayer is being assessed on his property tax bill. The community is saying my tax bill is high enough for public education, and we want a proper accounting of these funds. They are now also saying that they want a proper accounting of student activity funds. These funds are an integral part of financial reports, and they should be for the business official's protection as well as board protection and responsibility to the community. These are public funds whether they are on the tax roll or collected at the school level.

In education everyone speaks about getting back to the basics. Whether it is the educator, school business official, or administrator, the theme is change and uniformity as it concerns our children in education.

Another area that should be addressed in education is at the college and university level. From these educational institutions will come the students of the future contemplating careers in education, administration, and governmental accounting. At the university level governmental accounting has been largely ignored. The universities must recognize the challenges facing government today at the local, state, and federal levels. They must be constantly apprised of the changes that are taking place in the profession. This will assure us that our students can be knowledgeable in governmental accounting and financial reporting as they choose their career in the government or private sector.

The school business official and administrator that keeps abreast of the changes in accounting and financial reporting will be the winner in the end. Those officials that ignore the constant changes in governmental accounting will fall by the wayside.

Chapter 5.
State Assistance to Financially Distressed School Districts

Dennis L. Costerison

FOR MANY AND VARIOUS REASONS, school districts across the country are finding themselves in financial difficulties. Some have found it necessary to seek state assistance in order to continue with their day-to-day operation. Several state legislatures have attempted to create laws that can assist these financially distressed schools. The purpose of this report is to depict how two states have dealt with this problem.

The State/Province Departments of Education Research Committee of the Association of School Business Officials surveyed all states and provinces concerning state assistance to financially distressed school districts. A survey instrument was sent to all state/province ASBO presidents and the Directors of School Finance of each state/province Department of Education. For purposes of the survey, a financially distressed school district was defined as a district whose expenditures were greater than their revenues and requested state assistance.

The survey was conducted in the summer of 1983, and 48 states responded (96%). Three provinces also returned the questionnaire. Thirteen states reported that there was legislation pertaining to financially distressed schools. Table A depicts the states and provinces that responded.

Rather than describing in detail all thirteen statutory references, this article will focus on two states. The Indiana and Pennsylvania laws speak to different methods of dealing with financially distressed schools.

Indiana

The Indiana General Assembly enacted a mechanism to deal with financially distressed districts in 1973. The following will be an overview of the Indiana law and its effects over the past ten years.

In Indiana, the School Property Tax Control Board (hereinafter referred to as the Control Board) has the responsibility to assist financially troubled districts. The Control Board was established under the 1973 Indiana tax package (Public Law 45, Acts of 1973).

Dennis L. Costerison is Assistant Executive Director, Indiana School Boards Association.

TABLE A

Does your state have a statutory or administrative procedure concerning financially distressed school districts?

State	Yes	No	State	Yes	No
Alaska		X	New Mexico		X
Alabama		X	New York	X	
Arkansas			North Carolina		X
Arizona		X	North Dakota		X
California	X		Ohio	X	
Colorado		X	Oklahoma	X	
Connecticut		X	Oregon	X	
Delaware		X	Pennsylvania	X	
Florida		X	Rhode Island		
Georgia		X	South Carolina		X
Hawaii		X	South Dakota		X
Idaho		X	Tennessee		X
Illinois	X		Texas		X
Indiana	X		Utah		X
Iowa	X		Vermont		X
Kansas		X	Virginia		X
Kentucky	X		Washington		X
Louisiana		X	West Virginia		X
Maine		X	Wisconsin		X
Maryland		X	Wyoming		X
Massachusetts	X				
Michigan	X		Provinces		
Minnesota	X				
Mississippi		X	Alberta		X
Missouri		X	Manitoba		X
Montana		X	Saskatchewan		X
Nebraska		X			
Nevada	X				
New Hampshire		X			
New Jersey		X			

The Control Board consists of five voting members and two ex officio nonvoting members. Of the five voting members, one is appointed by the State Board of Accounts, and one is appointed by the State Board of Tax Commissioners. The remaining three are appointed by the Governor, who may seek the recommendation of the Superintendent of Public Instruction for one of the appointments. The remaining two members are appointed by the Governor and must not be an elected or appointed official nor be employed by the State of Indiana. The two nonvoting members are appointed by the Speaker of the House of Representatives (a State Representative) and the President Pro Tempore of the Senate (a State Senator). Control Board members receive no compensation, except mileage and per diem.

The Control Board has the authority to recommend emergency

financial relief to fiscally depressed school corporations. When a district receives this relief, it becomes a "controlled" school corporation. Since 1974, 52 Indiana school districts have been designated as controlled. For 1983, eight districts sought and were granted financial relief.

In order to receive financial assistance, a district must file a budget appeal called an emergency financial relief petition. With an emergency appeal, the school corporation states that it "cannot, in the ensuing calendar year, carry out the public educational duty committed to it by law" unless it receives emergency financial relief. If the Control Board determines this to be the case, it can recommend to the State Board of Tax Commissioners any, or a combination, of the following actions to assist local districts:

- a grant or grants from any of the funds of the state that are available for such a purpose;
- a loan or loans from any funds of the state that are available for such a purpose;
- permission to borrow funds from a source other than the state;
- an advance of state funds that will become payable to the district;
- permission to use any unobligated balance in its Cumulative Building Fund (CBF) for general fund purposes;
- permission to use any unobligated balance in any construction fund for general fund purposes.

The actions of the Control Board have been very beneficial to those districts seeking assistance. Without the aid provided by the Control Board, several of these districts would have found themselves in an untenable situation.

Pennsylvania

A school district in Pennsylvania will be deemed distressed if it meets one of seven circumstances found in Pennsylvania law. These circumstances range from unpaid teacher salaries to defaulting on bond payments. If a district meets any of the criteria, then the Superintendent of Public Instruction issues a certificate declaring such district in financial distress.

When a district is declared distressed, the Superintendent of Public Instruction shall petition the court of common plea of the county in which such district is located to appoint two citizens who are qualified electors and taxpayers in the county in which the school district is located. These two citizens and the Superintendent of Public Instruction or his designate constitute a special board of control. This special board of control assumes control of the affairs of the district and operates in place of the school board during the period necessary to reestablish a sound financial structure.

The special board of control assumes control of the distressed district

and has all of the powers authorized for the school board. The school board of the distressed district shall have no power to act without the approval of the special board of control.

The special board of control has the power to require the affected school board "to revise the districts budget for the purpose of effecting such economics as it deems necessary to improve the districts financial condition." The special board of control may require any or all of the following:

1. Cancel or renegotiate any contract other than teacher contracts
2. Increase tax levies as permitted by the special board of control law
3. Appoint a special collector of delinquent taxes
4. Have the accounts of the distressed school district audited
5. Dispense with the services of such nonprofessional employees that are not actually needed
6. Suspend such number of professional employees as may be necessary to maintain a pupil-teacher ratio of not less than twenty-six to one for the combined elementary and secondary school enrollments.

From this analysis, it is apparent that Indiana and Pennsylvania have taken different paths in assisting financially distressed schools. In Pennsylvania the district is actually taken over by the state, while in Indiana the state approves remedies which are from local sources of revenue with limited controls.

In November 1982, the staff of the Illinois State Board of Education submitted a very extensive report regarding indicators of fiscal crisis. The study attempted to determine if there are any financial, economic, or demographic factors that characterize troubled districts. A few of the conclusions of this report are as follows:

1. Operating expense of Illinois school districts has increased by 171% on average. Financially troubled school districts have experienced increases of up to 462% in their operating expense.
2. Approximately 33% of Illinois school districts are currently forced to borrow monies from outside sources each year.
3. The dollar amount of borrowing and the number of districts borrowing monies has decreased each year since 1978.
4. High school districts are much less likely to be in financial difficulty than unit or elementary districts.
5. Districts in financial difficulty are concentrated somewhat evenly throughout the state.
6. There was no discernible relationship between levels of operating tax rates and equalized assessed valuations per pupil among financially troubled districts.

7. Commonality in size of the enrollments has not been a characteristic of financially troubled districts.[1]

In the Illinois study, there was reported how states have reacted to school districts which have encountered financial difficulty. The varying methods are depicted below:

A. Creating quasi governmental boards of control to oversee financially troubled districts.
B. Creating boards of control with power to grant emergency loans.
C. Providing state departments of education with broader powers to monitor financially troubled districts.
D. Enacting revisions to financial accounting and reporting requirements to provide greater amounts of uniformity.
E. Enacting tighter deficit spending and budgetary control requirements among units of local government and schools.
F. Providing increased technical assistance to financially troubled districts from state departments of education and state audit boards.
G. Enacting statutes that prohibit closing of schools for financial reasons.
H. Introducing and/or enacting state enabling legislation to permit use of 1976 federal bankruptcy proceedings among units of local government or schools.
I. Establishing in statute, or by rule and regulation, certain characteristics which indicate financial difficulty among school districts.[2]

The answers vary to the question, why do school districts find themselves in financial trouble? An analysis of school districts in financial difficulties in Ohio was completed by Joseph Murphy at Ohio State University in 1980. Murphy found that no single factor is totally responsible for school district financial problems. A number of factors were cited as causes. These factors include:

1. Voter resistance to tax increase.
2. Increased costs due to inflation.
3. Inability to forecast state and local revenues.
4. Declining enrollment.
5. State and federal mandates.
6. Higher utility costs.
7. Late collection of taxes.
8. High debt service costs.
9. Damage to property, desegregation.

[1] Illinois State Board of Education Staff, *Indicators of Fiscal Crisis*, Illinois Public School Finance Project, page 15 November, 1982.
[2] Ibid., page 14.

10. Increasing enrollment.
11. Decline in state aid.
12. Governor's cuts.
13. Business official's audit errors.
14. Employee negotiations.
15. School facility closing costs.
16. Nonpublic schools.
17. Low fiscal capacity and/or low effort.
18. High transportation costs as a percentage of the total operating costs.
19. High capital outlays.
20. High concentrations of students requiring more than regular educational services.
21. Low annual average income of residents within counties in which financially troubled districts are located.
22. State minimum salary requirements.
23. Pupil/teacher ratio requirements.
24. Increases in the cost of supplies, materials, and maintenance.
25. Increases in costs of meeting state requirements.
26. Increases in costs of meeting educational service personnel requirements.
27. School systems which are not optimally sized, *i.e.*, either too small or too large.
28. Rising school expenditures which cannot be offset by increases in productivity.
29. Desegregation.
30. Educational overburden—the need for some districts to provide increased services per student and to offer a larger overall educational package.
31. Management incompetence.
32. Role overload—the inability of schools to map out a realistic scope of activities to perform.
33. Unique or one-time expenditure or revenue problems.[3]

School districts are finding it more difficult day by day to "keep their heads above water." As this article details, many states have tried to provide mechanisms to assist local districts with their financial problems. The trend may be that other states/provinces will follow their lead.

[3] Joseph Francis Murphy, *"Analysis of Financially Troubled School Districts in Ohio"* (Ph.D. Dissertation, Ohio State University, 1980).

Chapter 6.
Office of The Future—Are School Business Officials Ready?

Donald R. Johnson

Date: Friday, August 31, 1990
Time: 3:15 PM
Location: Common School District
Suburban-Chicago, Illinois
Office of John Smith, Business Manager

SMITH HAS BEEN PLANNING ALL WEEK to leave his office early today. It's the beginning of the Labor Day Weekend. To complete the week's business and prepare for the following week, Smith places the usual Friday sequence of "fund status calls." The first call is to the district's main bank, over thirty miles away, to check on the current balance of the Education Fund, the district's largest fund. No one answers; John doesn't expect a voice to answer the call; John hasn't even lifted the telephone handset. Smith is using the district's data link via his personal microcomputer. The monitor on the left-center of his desk flashes to life announcing, "Call Completed . . . Account Number Requested." John "touches in" the account number, and the monitor flickers and then displays a new message, "Account Verified . . . Identity Requested." John places the three middle fingers of his right hand (since he's right-handed) on a flat, milky-white panel built into his desk. The ends of his fingers are scanned and within ten seconds, the monitor flashes back, "Identity Confirmed." Responding to his subsequent "touched-in" commands, the monitor continues to display the current cash position in each of the district's funds. This data is automatically forwarded to the district's main computer becoming input to the district's financial projection model. While waiting for the computer to prioritize the possible funds transfer alternatives, Smith places a second data link call to the district's local bank. This time the local bank's computer responds with the same requests for data and finger scan verification. Completing the data entry sequence, Smith returns to his computer's suggested transfers. These suggested transfers

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have been based on conversion rates, investment opportunities, and disbursement needs. Making his transfer selections, Smith enters the data into the local bank's computer system. Upon completion, the circuit is automatically broken.

Yes, technology is advancing at a fantastic rate. It almost seems like we can't keep pace with all the technological changes going on around us. While only a scenario projected for the year 1990, the above sequence of events has been technologically possible since the mid-70's. In fact, voice-transmission and recognition has been available since the beginning of this decade. Why then haven't school business officials been made aware of this technology, or more important, why aren't we using it?

Many "technocrats" are saying the concept of the "office of the future" has already become the "office of today." If so, why are we working so hard at continually repeating routine tasks, re-inventing the wheel, wearing-out pencils and calculators, making the usual "human" mistakes, perpetuating the paper-jungle and working ten to twelve hour days? Perhaps the answer lies with school business officials themselves. Maybe a better way to state the question would be, "Office of the future—are school business officials ready?"

Just what will constitute the "office of the future" is open to speculation. Many people try to relate that concept to the structure of today's office. That is, offices are rooms or compartments perhaps updated by an ultra-modern look with very flashy and sophisticated (or so it seems) equipment. Other visionaries perceive the "office of the future" as a power supply unit. In fact offices may not be housed in a single building, but rather dispersed throughout the land and connected via some power source. In the private sector, some new "office" locations include homes, condominiums, recreational vehicles, "vacation" cottages, boats, and airplanes. More possibilities exist for managers in the public sector. Hank Koehn (1) provides a good discussion on planning for future offices,

> In the 21st century, the fixed location offices within buildings will serve two functions. First, they will shelter the staff which acts as a centralized hub for the knowledge or information workers elsewhere in the company. This hub will contain the computer/communications center, the electronic files and administrative workpools of word processors. Second, they will serve as human-to-human meeting places. The human contact will be a very important event and perhaps even a luxury in a fast paced, high technology, media linked world . . .
>
> The technology must never be the focus of our planning. The nature of the worker of tomorrow is the main ingredient in our planning. The next evolutionary step in the office will finally allow us to place people first. To do less is to build failure into the design which will result in rejection and lowered productivity.

Many people have identified benefits of the "office of the future." Some of the most cited benefits are:

- Increased efficiency of clerical function.
- Increased productivity of school business officials.
- Reduced time to make decisions.
- Reduced travel/meeting time and expenses.

Let's look at each of these perceived benefits individually with consideration for both technology and people.

Increased efficiency of clerical function

Most of the claims for improvement in this area revolve around the concept of a "paperless" office. Certainly technology exists in the form of word processors, xerography, microcomputers, data storage and facsimile transmission devices, teleconferencing and laser communications, to make this claim possible. But what about the people side? Much of the publicity regarding the "paperless" office stems from vendors who are trying to convince people to buy their equipment. Historically the arguments for purchase have centered around producing "X" times as much information for the same amount of dollars. Victor Vyssotsky (3) points out, "To think about this trend [paperless office], we must consider what clerks do, and the most significant thing to note is that clerks do lots of different things; fussing with paper is only one aspect of their work." In assessing the impact of the "paperless" office, he estimates a net savings to the enterprise to be less than 15% of the current cost of clerical work. He states, "This is certainly worth getting . . . But it's not a revolution."

Increased productivity of school business officials

Changes in management techniques will come gradually in the coming years. Currently a business manager usually follows a long, involved sequence of events in order to solve a major problem. Technology can provide microcomputer programs that can isolate a variable or discrepancy to determine the relationship with the major problem. The computer model can also provide access to back-up or supplemental information, models, and decision tables to analyze alternative solutions, produce hard-copy if necessary, teleconference with staff to communicate and delegate decisionmaking for corrective action.

While technology will increase productivity of school business officials by improving support and providing more information, most of the change will come from improving management techniques. Business managers are realizing that maximum utilization of employee talents can have a greater bearing on the manager's performance than any other variable. Human assets will require more attention. People will have to change, and business managers will have to manage that change. According to Douglas MacGregor (2), "The emotional and rational aspects of man are inextricably interwoven, it is an illusion to believe they can be separated." To help develop a plan for implementing change, the business manager should keep in mind several resistance factors. Among them are:

- Fear of the unknown.
- Fear of technology.

- Fear of automation.
- Fear of retraining and changing direction.
- Fear of dependency.
- Fear of being discovered.
- Fear of implied criticism.

Reduced time to make decisions

Even though technology can provide it, school business officials don't necessarily want more information. They want more selective information; specific information necessary to make required decisions, take corrective action and solve major problems. Business managers must be made to understand that technology exists to improve both the effectiveness of decision-making and the business manager's efficiency in reaching those decisions. Technology can enhance the school business official's performance. It is important to have the school business official actually use the equipment. It is not enough for tomorrow's business manager to be able to direct someone else to use the equipment. The major benefit derived from the school business official using the equipment is that the business manager will be able to learn as much about the problem as quickly as possible. A problem that could arise is that the business manager will fall in love with the new access to information and become "data-logged," drowning in a sea of information too great for an individual to absorb. The school business official may end up with so much information that the decision-making process is complicated. It is not important for someone to know everything, but rather to have access to as much information as possible. Some business managers are so preoccupied with attaining all available information, that they delay making a decision until all the information is at hand. Decision-making becomes paralyzed. School business officials must learn how to use technology so that it provides only the information necessary to make the decision.

Reduced travel/meeting time and expenditures

The interaction of video and telephone communications promises to reduce costs. The school business official may not have to leave the "office of the future" in order to inspect a problem "in person." Reduced travel time not only could speed the decision-making process, but could create additional time for the school business official during that period which used to be consumed by traveling and meetings. Reduced time translates to reduced expenditures. This reduction will also probably bring with it changes in the organizational pattern as fewer levels of decision making will be necessary. Organizational patterns will tend to be more horizontal in nature.

Coupled with benefits of the "office of the future" come costs, and

those costs will not necessarily be cheap. Most importantly, justification of new technology should not be made at the expense of eliminating personnel. If any lesson from the 70's decade of computer expansion should have been learned, it would be that personnel were rarely eliminated by technology. At best, personnel were retained and retrained in other jobs within the organization. More often, additional personnel were employed or outside services were purchased. Thus the major cost savings projected as justification rarely occurred. Some major costs, both direct and indirect, usually associated with an "office of the future" include:

- Purchase of equipment and new technology.
- Maintenance and replacement of equipment.
- Staff time required to analyze, design, implement, and evaluate the new equipment and technology.
- Alienation of clerical staff.
- Alienation of management staff.

Summary

Most school business officials realize the key to the "office of the future" will be to take effective school business officials and make them more efficient. Technology by itself cannot do this process, the school business official must constantly work to upgrade his/her skills in managing people to accomplish the goals of the school system. You can be sure of exciting technology changes, and changes galore for creative school business management in the "office of the future."

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Chapter 7.
Information Society in School District's Perspectives

Martha Valerio

IT IS NO SECRET THAT THE SPEED OF TECHNOLOGICAL CHANGE has increased rapidly since the Industrial Revolution. The advent of computers in the 1940's quickened the pace considerably. And from the first bulky business computers of the early fifties, we have arrived today at microcomputers.

The first business computers used vacuum tubes for memory. The tubes filled an entire room and provided memory of less than 20,000 bytes. They had extremely demanding air-conditioning and water cooling requirements. In the late 1970's, microcomputers with a significantly larger storage of 512,000 bytes of memory were common and could fit on a small desk. An internal fan cooled the system.

There were major changes in the way information was processed by succeeding generations of computers. One major change was the level of integration of applications. The first business applications were free-standing or "room contained." Accounting systems were used by accounting departments; accounts receivable systems were used by accounts receivable departments, and payroll systems were used by payroll departments. Very few systems supported business operations. Most systems supported clerical and accounting functions. Today's applications are "data oriented." The data, not the room, is the focus of applications. A data oriented application is better equipped to feed other applications. It is commonplace to enter an operation-oriented transaction, such as a teacher time card, and have all systems that need that attendance information feed one another.

Another major change is that today's computers are easier to use. In order to use the first business computers, programmers had to use "machine language" which required an in-depth understanding of the computer circuitry and how peripheral devices were addressed and linked. Second generation computers used second generation languages. These languages were logical descriptions of required processing and were translated by systems software into machine language. This software translator placed programmers and analysts a step away from needing to

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understand computer circuitry. Third generation languages were much like second generation languages but went further in separating the programmers from machine language by using more sophisticated computer commands. Now, fourth generation languages are becoming popular. They are much closer to the English language and allow users to generate screens, reports, and files. No longer is a programmer needed to translate an external definition of requirements into a computer code.

The last major difference is the cost of computing. The costs of the computer hardware, systems software, application software, and application development tools have been dropping. In contrast, the cost of computer professionals has gone up. The trend, however, is toward the need for fewer computer professionals. The reduced need for technicians is due in part to the availability of excellent and reasonably priced application software and is also caused by fourth generation languages which allow users to independently develop their own applications.

What's Happening Today?

One of the more dramatic developments in the information society today is the ability to integrate all types of technology that, in the 1950's, were thought forever independent or "standalone." For example, who would have thought it was possible to send information electronically between the typewriter, computer, and duplicator using the telephone system. It has long been possible for smaller computers or minicomputers to talk to the mainframe or large computers. It did not take long to extend the communications link to microcomputers. At one moment microcomputers can function standalone and the next moment they can serve as terminals connected to larger computers. Microcomputer users can retrieve information from a centralized data base and manipulate the information using spreadsheet software.

Word processors are quickly replacing typewriters in business offices today. Most can be integrated with mainframes and minicomputers. In fact, many word processors come with microcomputer-type software packages. Mainframes can pass such information as name and address files to word processors for use in producing letter quality results. In turn, word processors can send source documents to copiers for mass duplication. If need be, typesetting can be integrated with word processing before the document is sent to the copier. Going in the opposite direction, typewritten documents can be stored on the mainframe by converting the images into digital output.

Telephones used for voice and data communications can be made part of an organization's information network. The speed of data communications advances is astounding. Nearly every week telephone vendors announce new data communications products and services. The number of vendors is growing annually. Today, organizations are wise to consider the role innovative telephone systems might play in their

strategic information plans. Their place in local area networks and inter-location networks is especially important.

How might medium-sized school districts aggressively take advantage of these possibilities? Let's say the budget director asked each school to develop a budget for school beautification. Each principal determines the budget and its detailed project breakdown with a microcomputer using financial planning software. When principals are satisfied with their budgets, they connect their microcomputers through a dial-up or dedicated line to the mainframe at the central office. Using the micro as a terminal, they use the school system's budget application to input their beautification budgets.

Following review of all the school budgets at the central office, the budget director sends out a memo to the principals asking them to reduce their budgets by 10%. The memos can be customized for each principal and for each budget size. The memo is then transmitted by electronic mail to the schools on the electronic mail network. At the school, the memo is reproduced automatically on a copier output device. Part of the transmission dictates how many copies of each document should be produced. In response to the central office request, the principals adjust their budgets and dictate memos to the central office. These memos are stored on the mainframe in digital form for future reference.

Tomorrow

One of the major problems information systems directors have in today's environment and one that will continue to get worse is the ability to satisify the information needs of the many people who are not computer literate. Teachers, administrators, and students are familiar with the capabilities of computers. Most have used computers. Most expect fast results and fast service. The pressure on the departments traditionally responsible for systems development is tremendous.

If the information systems department does not respond quickly enough, users will seek ways to satisfy their needs themselves. The result will be uncontrolled decentralization of hardware, systems and data and far less integration. Unfortunately for the hapless information systems director, the cost of computing no longer represents a barrier to the users' expansion into decentralized computing. In fact, microcomputers are commonly purchased as part of federal projects or other grants. The director must organize for efficient computer use. The department should be there to help users select microcomputers and learn to use them. It should assist the entire district in the integration of all systems and all computing equipment. The information systems director who reacts defensively to the spread of microcomputers and word processors will find themselves with shrinking areas of responsibility. This lack of information coordination will make it more difficult to satisfy management's information requirements.

We have come a long way in a short time. In some respects computer technology is outpacing our ability to receive and use it. We must take care to get the best of it and not let it get the best of us. Master it and we will reap benefits never dreamed in the first days of the Industrial Revolution.

Chapter 8.
Small School District Perspective on School Business Management

Orvin R. Clark

AS SCHOOL BUSINESS MANAGERS, we are always looking for tools to assist us in performing and managing our daily activities and duties. To date, we have been fairly productive—given the tools available. For many of us these tools include a pencil, a pad of paper, a telephone, (for some) a calculator, dictation equipment, and (for a very few) a main frame computer.

Let's face it, they're here. The mini's and the micro's! Technology and competition continues to drive computing hardware costs down; while at the same time, personnel, energy, and money costs continue to escalate. If school business managers hope to control such costs and paperwork, work environment systems MUST become automated.

Office automation is the merger of information processing, communications, and office equipment. Equipment offerings are continuing their transition from standalone, single purpose products to integrated parts of a school district's overall office information system. The hardware and software are now here and usable to support significant improvements in office productivity. Because of the evolving technologies and the resulting cost effective products, school districts will significantly increase their capital expenditures to provide automated tools to support the managers and the professionals. Therefore, the decision is not whether we should automate school business activities and products but how! The following scenario is about how a small school district is preparing for the future through automation.

The Fox Point-Bayside School District is an elementary district located in the northeast corner of Milwaukee County on the shores of Lake Michigan. The school districts of Nicolet Union High School, Glendale-River Hills, Maple Dale-Indian Hill and Fox Point-Bayside comprise the Nicolet Area with a student enrollment of 4,400 and combined budgets of approximately 21 million dollars.

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Prior to the spring of 1981, the Fox Point-Bayside School District's data processing services were limited, fragmented, and purchased from two sources: (1) The budgeting and accounting data service was purchased from a cooperative educational service agency and data was transmitted via an on-site terminal and printer. (2) The payroll and census data services were purchased from a private service bureau via manual turnaround systems. The combined costs of the purchased data services was approximately $16,000 per year. At this same time the district was exploring a standalone word processing system at an estimated one-time cost of $9,000 and envisioned other potential applications such as: financial forecasting, attendance, scheduling and grading, negotiations and salary analysis, inventory, and pupil program analysis to name a few. All of these applications would add significantly to the current cost of data processing. The School Board decided to investigate an in-house mini computer system in order to have the capability to perform the current and potential information processing applications.

While defining our software equipment needs, school management added communications so the district would have the capability to share computer services with the other school districts within the Union High School area, thereby making the purchase of a mini-computer system more cost effective. Throughout the product evaluation process the district maintained a "buy smart-not cheap" attitude.

Often the best buying decision is not the least expensive. It is important to know what your needs are in order to understand the net costs and benefits of alternate products:

(1) Evaluate the life cycle costs—purchase price, maintenance costs, and operating costs.

(2) Consider the benefits—labor cost savings, operating cost savings, and service track record (hardware reliability).

(3) Consider the approximate installation for back-up purposes.

(4) Also consider the risks—Make sure the equipment and software vendors are financially stable and have an established client base. Once the staying power of the vendors has been properly assessed, consider the viability and flexibility of the proven products themselves.

Most data information processing experts agree that hardware represents 30% of an installation budget and 70% is the cost of installing software. The software cost is not just the purchase-license price, but the applications training, data conversions, user documentation, new versions, and user groups. Therefore, the most important decision was the software. Being a small school district, we did not desire to be pioneers; we wanted a tested and proven product. During the investigation-demonstration phase the district narrowed the field of software-hardware vendors by holding meetings with users, viewing software demonstrations at user sites, and studying application documents. Ideally a user's group will be able to provide for computer hardware backup, to permit users to

exchange ideas, to share experiences, to define and implement modifications to existing software, to define and implement new applications, to keep the software system uniform and current in reporting requirements, and to share in software costs.

The best protection for both the buyer and seller of computer software lies within the written contract since computer software can be protected by copyright, but not by patent. A copyright protects the form of expression, not the idea; therefore, the law currently provides title protection. Normally, the software is licensed to the user, but the title remains with the vendor. A software license contract should, at a minimum, contain clauses pertaining to the license terms, indemnification, specifications, documentation, maintenance, installation, training, warranties, and payment terms. The vendor needs to protect trade secrets and against product infringements whereas the buyer needs user and technical documentation in the event the vendor goes out of business. A golden rule for the buyer should be to specify a percentage holdback in the purchase price until the end of the acceptance period during which time the computer programs can be installed and tested.

After the investigation-demonstration phase, the district requested proposals and selected the Computer Resource Technology School Finance package and the IBM System/34. The return on hardware and software investment ($75,000) had a five year payback period since the computer system was being shared with another school district. The system's architectural features are shown on Charts 1–3. Currently, the Fox Point-Bayside computer system consists of a system unit, two terminals, and two printers (one system printer and one word processing printer) on site and a terminal and printer at the second location.

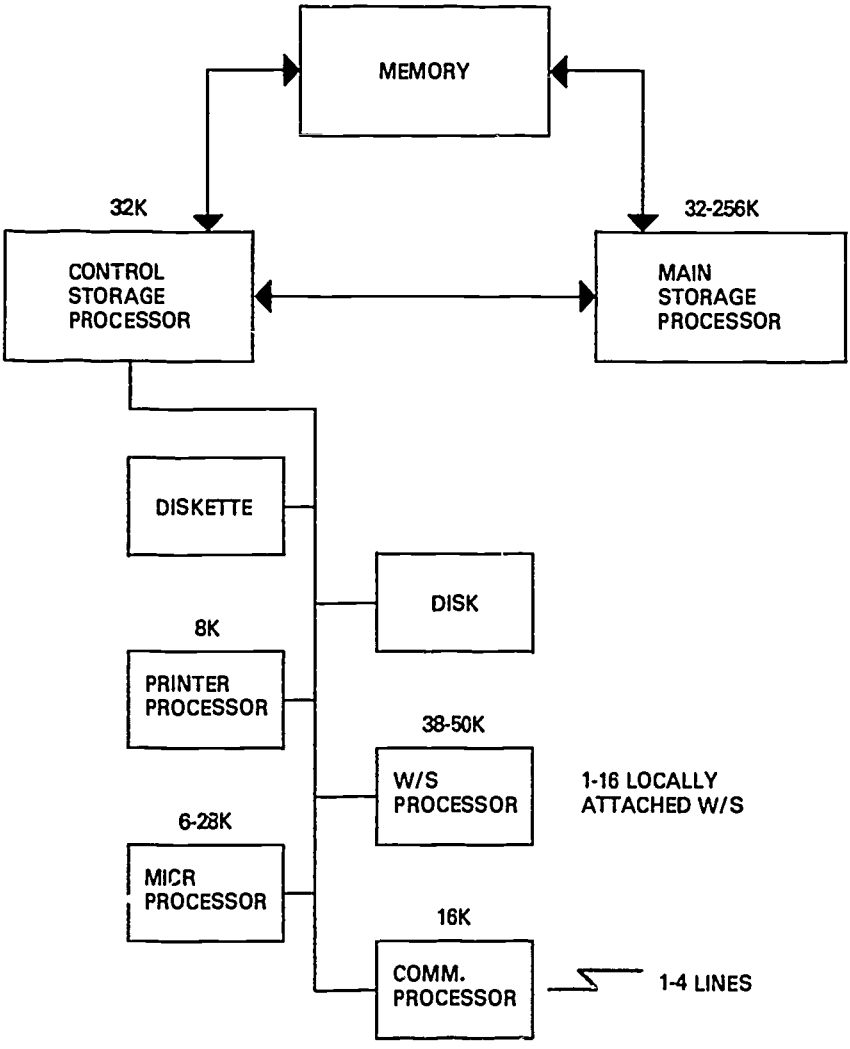
The district realized that word processing is the backbone of the automated office. For schools, word processing has been immensely helpful because it eliminates the time and tedium involved in mass mailings, lists, labels, directories, and document revisions. Schools have greatly benefitted from the word processor's ability to create personalized letters printed on school stationary with a typewriter quality appearance at speeds no typist can match. The word processor's greatest asset is that it never uses a single sheet of paper until everything is ready to be printed. The operator can add, delete, edit, and reformat material rather than retyping it one or more times. The finished material can be stored on cassette or disk and recalled at any future time.

With the above in mind, the district recently purchased Xerox memory writers which emulate as terminals for the school. In the near future the school offices will have direct access to the system's word processor.

In closing, a few lines about ergonomics . . . . "Ergonomics" is a word that will grow into common usage as more VDT's (video display terminals) are used in offices. It is estimated that by 1985, ten million VDT's will be in operation in schools and businesses. Ergonomics is the

CHART 1

S/34 Architecture



subject of a person's relationship with machines and computers. This suggests that in planning a computer installation, consideration must be given to the overhead lighting, keyboard height, chair posture, viewing distance, drapes or shades, and other properly designed office furniture, not only the electrical, heating, cooling, and security of the system. Therefore, in the installation of the System/34, the physical and human environments were planned and adopted to meet the needs of both equipment and people.

CHART 2

System 34 Capabilities:

• Memory	32 to 256K
• Disk	8.6 to 257M
• Diskette	.25 to 28M
• Printer	40 CPS to 650 LPM
• Local W/S	1 to 16
• Remote W/S	1 to 64
• Comm. Lines	1 to 4

System 34 Features

- Multiprogramming/Program Swapping
- Priority/Time Slice Dispatching
- Menu Driven
- Print Spooling/Input Queue
- Programmer Productivity Aids
- System Measurement Facility
- Integrated Communications Support
- File Sharing Data Management
- Memory Fault Bypass
- Efficient Resource Utilization
- Multiple Microprocessors

CHART 3

System 34

Main Storage Processor
- Mosfet with ECC
- Memory Fault Bypass
- 600 NANOS/BYTE
- 25 Hard Wired Instructions

Control Storage Processor
- Independent From Main Processor
- 600 NANOS/2 BYTES
- Swapping/Dispatching Functions, I/O Operations, Interrupts, Etc.
- Fortran & Basic

Work station Processor
- Locally Attached—5000 ft.
- Polling, Addressing, Formatting
- Print Data Decompression (Spooled)
- 1,000,000 BPS Transfer
- SDLC
- Microprocessor

Communication Processor
- 1-4 Lines
- 65000 BPS Aggregate Rate
- Polling, Addressing, Line Monitoring
- BSC or SDLC (Program Controlled)
- Microprocessor

Printer Processor
- Decompress Print Data
- Diagnostics
- Character Translation
- Microprocessor

MICR Processor
- 1255 MICR
- Microprocessor

Chapter 9.
Large District Perspective on School Business Management

John Peterburs

Organizational Background

The Milwaukee Public Schools is a large urban school district with an enrollment of approximately 90,000 and an operating budget of $332 million, employing some 10,000 full and part-time employees. The system is organized managerially as a dual system, employing both a superintendent and secretary-business manager. Both positions report directly to the board with the superintendent having responsibility for the education departments and the secretary-business manager for the business departments (Exhibit I.) The 10,000 employees are represented by seven different bargaining agents encompassing eleven different collective bargaining agreements.

Major Objectives To Be Achieved Through Examination of Organization

The superintendent and secretary-business manager in assessing organizational problems associated with providing information to the various levels of management, identified three major objectives that needed to be achieved in order to take advantage of technological changes:

1. Bringing together scattered information systems functions from various divisions and organizing them into one division to ensure coordination and to eliminate duplication of efforts.
2. Providing the proper leadership to assist the school system in achieving information systems' needs of the future, i.e., administration, student services, and instructional services.
3. Providing the resources necessary to assist schools and central office divisions in attaining greater efficiency and cost savings through automated systems.

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Objective #1 was of particular importance due to the dual system management structure. The Data Processing Division which included systems and programming and computer operations and the Division of Purchasing and Transportation which included office services, telephone communication, and mail delivery services reported to the secretary-business manager. A department known as Educational Information Systems Development, with major responsibilities for planning new microcomputer systems and support of information systems development, reported to the superintendent (see Exhibit I). This fragmentation among departments and divisions resulted in a lack of coordination and duplication of efforts. In the simplest of terms, the right hand did not know what the left was doing and vice versa.

Leadership in employing state of the art technology and new systems development, as outlined in Objective #2, was needed. Managers were spending more time protecting their turf or trying to find out how a particular user was able to purchase a certain piece of equipment without going through the proper channels, than providing leadership with respect to developing policy and procedures to assure coordination in delivery of services in the most efficient and timely manner possible.

As a result of increasing pressure on division and department heads to contain costs and reduce budget requests through staff reductions, there were an inordinate number of requests for systems changes and new equipment procurement. Rather than having district priorities governing the expenditure of funds for new product purchases, managers, who had alternative funding sources available to them such as state and federal grants or school funds derived from various fund raisers, were able to have their perceived needs met while other departments were being impeded from having their needs met because of bureaucratic entanglements resulting from problems reflected in Objectives #1 and #2. While debate continued over centralization vs. decentralization and microcomputer application vs. main frame, inefficiencies in staff utilization continued for those divisions and departments less fortunate financially and who were unable to make an end run of established purchasing procedures. Resulting from these issues, Objective #3 was identified.

Strategies To Achieve Superintendent's and Secretary-Business Manager's Objectives

The management consulting firm of Touche Ross & Co. was asked to perform an information systems needs assessment and to recommend an organizational change to meet the future needs of the school system as well as accommodate the technological improvements in computer hardware and software.

Representatives from Touche Ross & Co. first developed and distributed a questionnaire soliciting feedback on computer uses and current data processing services to the Superintendent, Secretary-Business

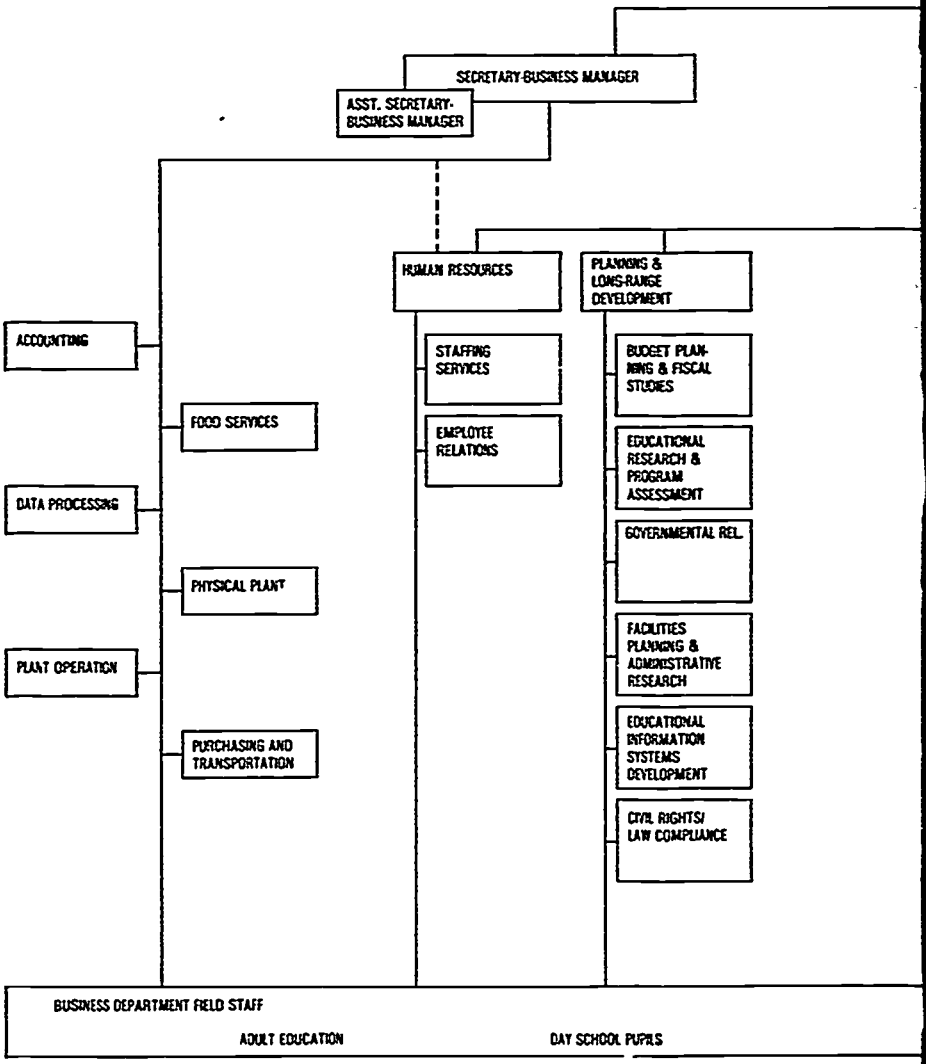
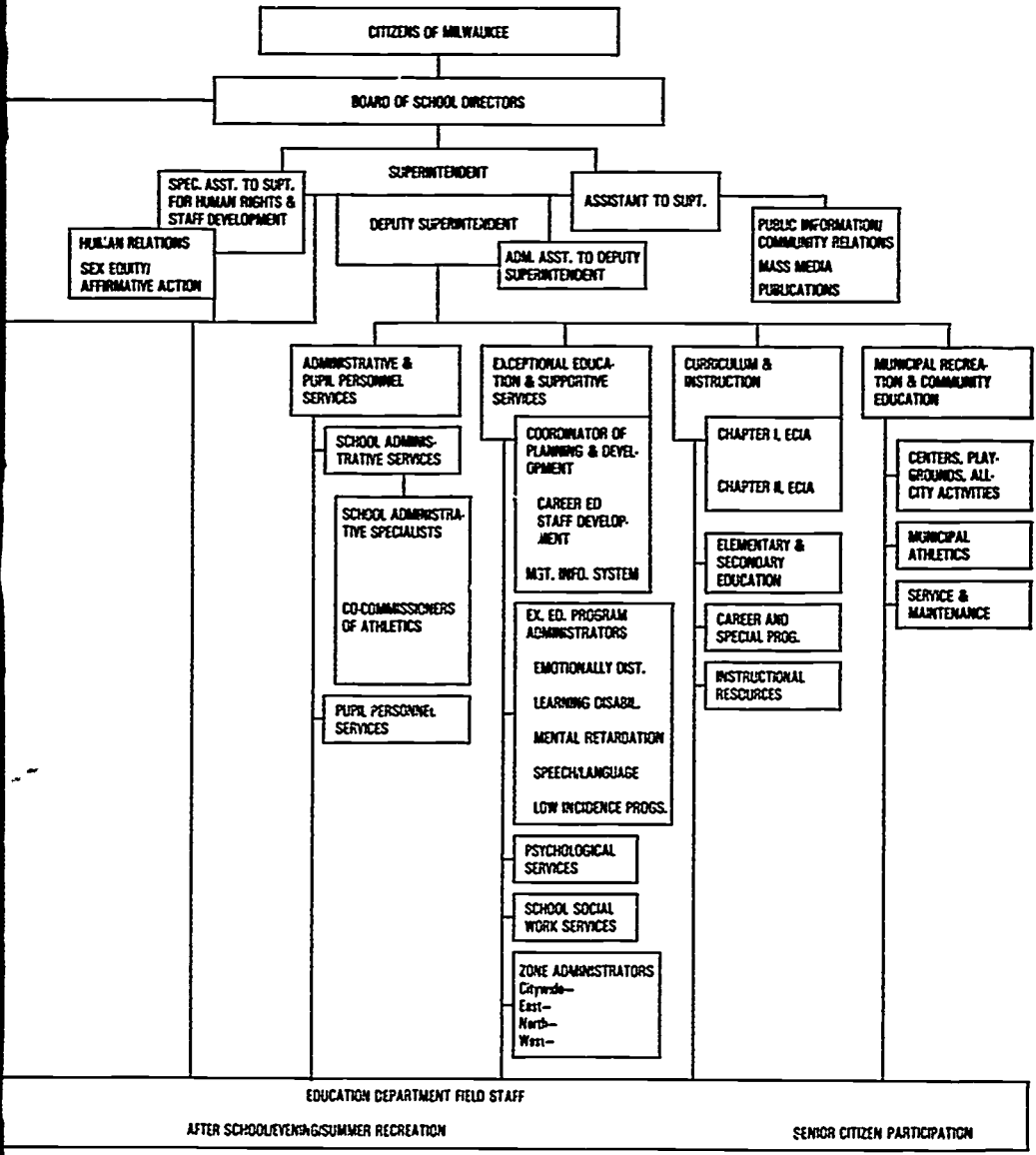

SECRETARY-BUSINESS MANAGER
ASST. SECRETARY-BUSINESS MANAGER
HUMAN RESOURCES
PLANNING & LONG-RANGE DEVELOPMENT
ACCOUNTING
FOOD SERVICES
DATA PROCESSING
PHYSICAL PLANT
PLANT OPERATION
PURCHASING AND TRANSPORTATION
STAFFING SERVICES
EMPLOYEE RELATIONS
BUDGET PLANNING & FISCAL STUDIES
EDUCATIONAL RESEARCH & PROGRAM ASSESSMENT
GOVERNMENTAL REL.
FACILITIES PLANNING & ADMINISTRATIVE RESEARCH
EDUCATIONAL INFORMATION SYSTEMS DEVELOPMENT
CIVIL RIGHTS/ LAW COMPLIANCE
BUSINESS DEPARTMENT FIELD STAFF
ADULT EDUCATION
DAY SCHOOL PUPILS

EXHIBIT I

Milwaukee Public Schools Organization Chart



Manager, all division managers and the School Board staff. Each person had the option of distributing copies to other persons in their division. Fifty questionnaires were returned. The questionnaires served to assess needs and perceptions of services in the following categories: main frame, micro-computers, word processing, data processing department service, and other computer needs. With respect to current delivery of services of the data processing department, the following conclusions were derived:

1. A majority of both the business and education respondents felt that overall data processing service was good.
2. Respondents gave higher ratings for data processing response time to problems with current applications and hardware than to new application development.
3. Some respondents expressed concern about how data processing assigns priorities to projects.
4. Some respondents perceived that data processing did not understand the nature of micro-computers, and, therefore, was not responsive to the micro-computer requirements of central administration divisions and departments.

A major concern of the respondents was the perception of new application development. Close to 20% of the business department managers surveyed rated the current data processing operation poor and less than 50% rated it above average in new development. Less than 40% of the education department managers surveyed rated services in the area of new application development above average.

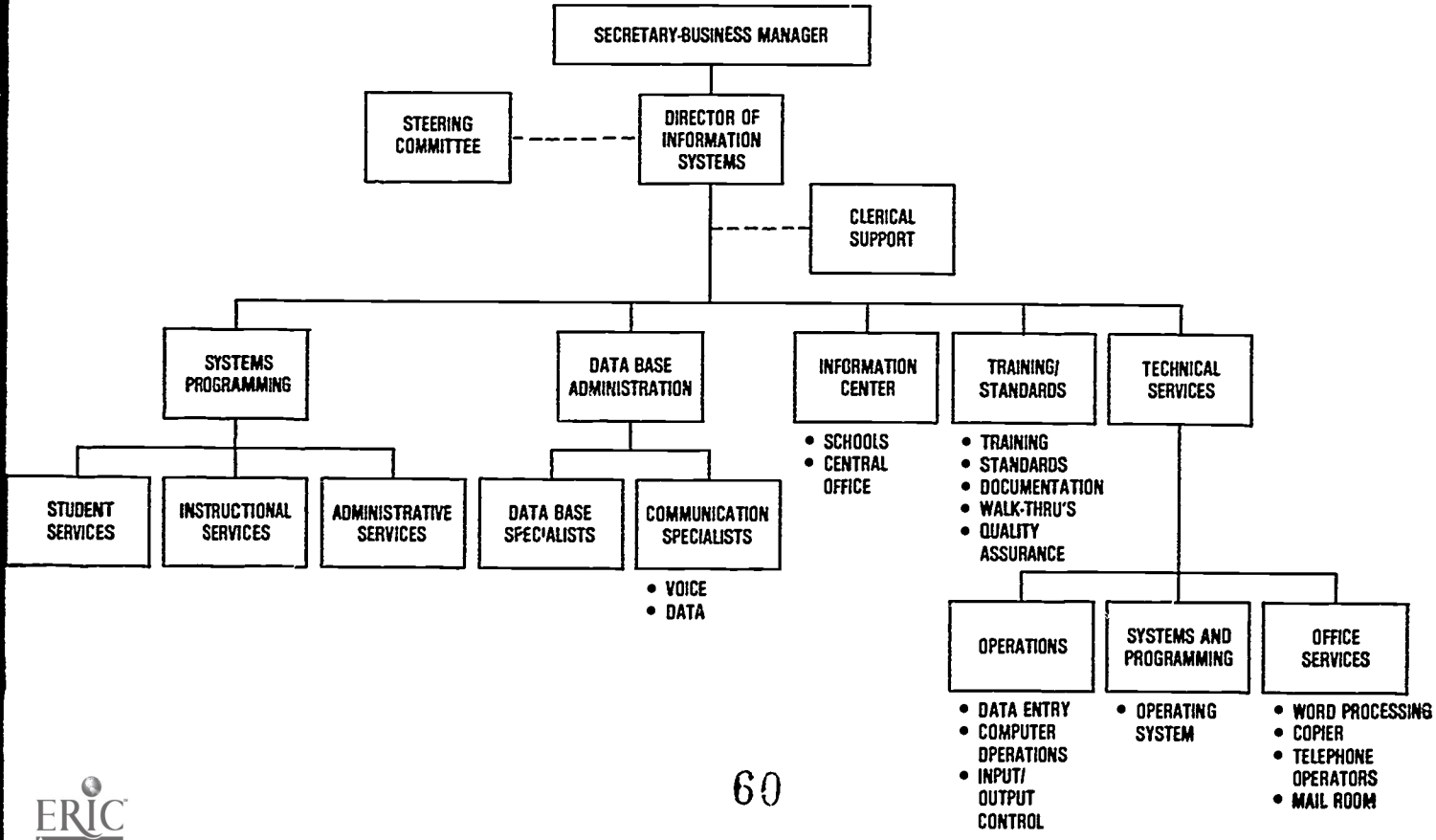
In response to the major objectives outlined by the superintendent and secretary-business manager as well as the perceptions of the respondents to the questionnaire, Touche Ross & Co. proposed a reorganization of all information systems' functions (Exhibit II).

The following major changes in the current organization structure (Exhibit I) were necessary to implement the proposed Touche Ross & Co. plan:

1. Change the title of the current Data Processing Division to Information Systems Divison, incorporating all functions previously performed by the Data Processing Division.
2. Move all office services functions currently performed by the Division of Purchasing/Transportation Services (duplicating/printing, mail/school delivery, and telecommunications) to the new Division of Information Systems to become a part of the technical services department in the new organization.
3. Move the Department of Educational Information Systems Development (planning micro-computer systems and support of information systems development) to the new Division of Information Systems to become a part of a new information center.

EXHIBIT II

Milwaukee Public Schools
Proposed Information Systems Functional Organization



Policy statements for the new organization were recommended by the consultants and adopted by the administration as follows:

Division of Information Systems Mission

The Division of Information Systems (DIS), under the guidance of the Informations Systems Steering Committee, coordinates the use and development of all information processing systems in the Milwaukee Public Schools. DIS operations are to be directed by a systems plan that is approved by the Information Systems Steering Committee.

DIS strives for integrated, modern systems that use current technology. These systems are achieved by working with the systems' users in developing new programs, in enhancing current systems, and by following a standard systems development and project management methodology.

Information Systems Steering Committee Mission

The Information Systems Steering Committee, comprised of top management (Exhibit III), reviews, modifies, and approves plans for computer hardware and systems software procurement, application software procurement and development, and major enhancement projects. The committee approves priorities for projects included in the plan and recommends necessary funds be allocated to execute the plan.

The following points highlight the major changes from the current Data Processing Division:

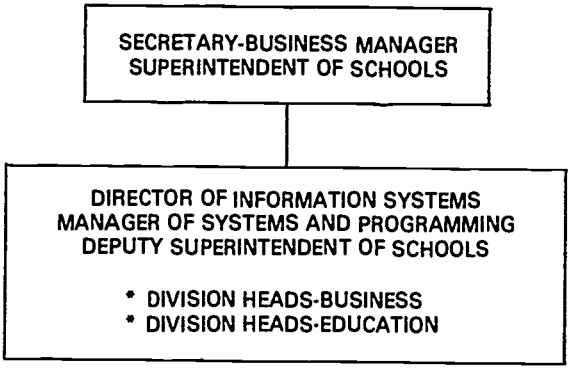
1. *Data Base Administration*—This function is placed on the same organizational level as Systems and Programming in order to reflect an emphasis on the importance of separation of duties when developing or modifying data bases. This function is responsible for the data structure and security. Also included in this function is the communications function which encompasses both voice (telephone) and data transmission.

2. *Information Center*—This function emphasizes the importance of DIS addressing the fast-paced micro-computer and word processing technology and the demand for that technology from the user group. It should also serve as a focal point of all new information requests from the users. The Information Center staff will determine the best method for providing the information and, if necessary, will educate the requestor on how to generate the information via an on-line terminal, microcomputer, or word processor. Requests that require new systems development would be referred to the Systems and Programming staff.

3. *Training/Standards*—This function is on the same level as Systems and Programming in order to emphasize the importance of separating these duties. It is a part of the Information Center. Persons

EXHIBIT III

Milwaukee Public Schools
Proposed Computer Systems Steering Committee Members



*PERMANENT MEMBERS OF THE COMMITTEE THAT CAN ATTEND ALL MEETINGS OR CAN ELECT TO ATTEND MEETINGS ONLY WHEN THEY WISH TO INCLUDE THEIR DATA PROCESSING REQUIREMENTS ON THE AGENDA.

performing this function are responsible for developing and modifying all DIS standards, planning and conducting training, and assuring that the work done by Systems and Programming meets DIS standards.

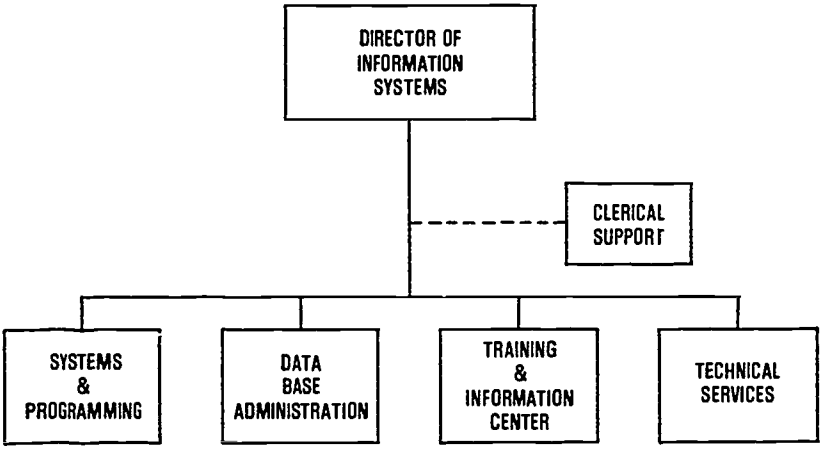
4. *Technical Services*—This function includes operations, systems programming, and office services. Office services is responsible for word processing, reproduction facilities, telephone operators, and the mail room.

Implementation of the New DIS Organization

Upon receiving the consultant's report, the implementation process began. The administration prepared recommendations to be considered by the Board including an organizational structure for the new Division of Information Systems (Exhibit IV), along with staffing requirements and implementation costs. The Board was informed that the new organization did not provide any immediate cost savings resulting from the elimination of positions. Three of the management positions (Manager of Systems & Programming, Manager of Technical Services, and Manager of Information Center) were filled through the reassignment of management personnel already employed by the district. The position of Director, Information Systems was filled as a result of a nationwide recruitment effort. The positions of Data Base Administrator and Computer Operations Supervisor were filled through promotion of employees from the district's existing pool of programmers and systems analysts. Programmers

EXHIBIT IV

Milwaukee Public Schools
Division of Information Systems
Organization Chart



and systems analysts positions that became vacant as a result of promotion to management positions were eliminated.

The Board was informed that immediate staff reductions were minimal. However, as the new organization is implemented in stages, and staffing levels are reviewed, there will be some staff reductions recommended in management, clerical, and technical areas.

The greatest opportunities for cost savings rest in the areas of productivity and efficiency. As the new organization attains its goals, other departments and divisions, the schools, and the school system as a whole, should be able to identify possible cost savings measures in terms of staff and operation procedures. Increased productivity and efficiency should have a direct impact on long range cost savings.

Recommendations were shared with employees who were directly impacted by the changes and with union officials prior to submission to the Board for approval.

Union concerns centered around some of the staffing recommendations. Particular concern was expressed with the plans to fill the Data Base Administrator and Computer Operations Supervisor positions. Specifically the union representing systems analysts and programmers objected to losing bargaining unit positions to create management positions.

Despite some opposition from the unions, the employees generally welcomed the change as a new challenge. The Board gave its unanimous approval.

Conclusion

The organizational changes and all the related recommendations that were approved by the Board are being successfully implemented in stages. The following are some of the improvements in the organization that have been attained with the new Division of Information Systems organization:

1. Separation of duties for Data Base Administration from Systems and Programming in terms of functions performed when developing or modifying data bases.
2. Addition of an Information Center function to the Division of Information Systems to emphasize the importance of and demand for fast-paced microcomputer and word processing technology by the user groups.
3. Separation of the Training/Standards function from Systems and Programming in terms of functions performed when developing or modifying DIS standards, planning and conducting training, and assuring that the work done by Systems and Programming meets DIS standards.
4. Inclusion of Technical Services in the Division of Information Systems in order to take full advantage of new technology in office automation, transmission of data from the computer directly to copiers tying together data processing and reproduction functions.

Chapter 10.
Risk Management and Insurance In The 80's

Alan V. Bielen

ONE OF THE MAIN FUNCTIONS OF BUSINESS OFFICIALS in education is to provide top management with sound and accurate financial information. As a corollary, that information should delineate controllable and noncontrollable costs and further provide information as to whether costs are fixed or variable. Using this information, top management may determine the nature of expenditure such as insurance as either controllable or noncontrollable and fixed or variable. In most cases, insurance has been considered a noncontrollable cost and with some degree of hesitancy, a variable cost, given exclusions, riders, endorsements, and various methods of covering a multitude of risks. Above all it is an absolute essential item given the ever-increasing litigious nature of education. Business officials face the responsibility of purchasing the protection needed to insure that the investment in property and personnel is properly safeguarded.

Fire insurance, general liability insurance, administrative insurance, errors and omissions insurance, workers' compensation insurance, money and securities insurance, robbery insurance, employee health insurance, employee life insurance, student athletic insurance, student professional liability insurance, legal expense insurance, boiler and machinery insurance, automobile collision insurance, environmental impairment liability insurance are necessary, and the list goes on for schools and colleges. The business officials confronted with the above list of "fixed" coverages and ever-increasing need to "control" costs face a dilemma. How does a business official maintain control over his fixed coverages when that official is subject to "noncontrollable" premium payments? The problem is further complicated by the intricacies and complexities for purchasing the correct coverage, or simply "getting what you paid for."

There are literally hundreds of insurance policy provisions that have a direct bearing on whether or not the insurance policy purchased would apply and extend protection under a given set of loss circumstances. For many years the processing of protection for the schools and colleges and their employees has been delegated to a person who prepares some form

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of specifications and submits them to the insurance industry for competitive quotations. Cost factors by the industry are submitted and many determinations as to what is purchased have been made on the bottom line without fully determining the degree of protection purchased.

Business officials and other high level administrators have made every effort to make good business sense and purchase a product or service that meets the intended requirements. To eliminate or minimize the danger of being exposed to a serious loss, some schools and colleges have created a risk management position on the staff and employed a person with the expertise to review exposures and make recommendations as to methods of protection. Other areas have seen schools and colleges join together in consortiums or groups to reduce the administrative costs to any one school or college and agree to a form of spreading a like risk over a like group to control the costs over a long period of time. This approach provides professional services that are not usually obtainable by a single school or college such as:

1. Having the expertise to review exposures and insure the intended protection is achieved.
2. Reducing costs by group purchases and maintaining a leveling effect on costs over the long range by spreading the exposure base over a large group.
3. Reducing costs by providing an operational management system that deals with similar problems daily.
4. Providing a vehicle that allows for coverage of special exposures and/or allows for recognition and treatment of one-time exposures.
5. Providing a means of analyzing the losses of the group and implementing programs to prevent or minimize the anticipated exposures.
6. Proving cost reduction through self insurance.

Many schools and colleges are not large enough or do not create a sufficient volume of premium dollars to allow for cost saving methods to be utilized. Additionally, the size may not permit the expenditure of funds to support a full time risk management program. However, when grouped together, i.e., through a consortium, the services are provided to all at an acceptable cost.

As school and college business officers and administrators look forward in the 1980's, it is obvious that the purchasing of property and casualty insurance and delivering employee benefit programs is an area that will require more and more of their time and effort in order to control the increasing associated costs. The provision of insurance requires a management system to support and control the costs while still delivering the product. No longer can decisions be made based on the recommendations of people not possessing the degree of knowledge necessary to make the decision. However, the decision whether or not to participate in a risk management program may be made by circumstances beyond the control of the school or college. The method used to imple-

ment a program remains to be determined by those responsible.

The development of a program and adequate risk management program is not a task that can be accomplished by inexperienced people such as clerks, purchasing officers, or others of a part-time nature, but someone who has been trained by highly specialized experts. Programs that are effective have to be designed with a long range goal or purpose, wide enough in scope to accommodate the known, and flexible enough to incorporate the unknown. Management objectives have to be predetermined and incorporated into a management program for the control of the program on a day to day basis. Data bases have to be designed to assist in determining present costs and predicting future trends and costs and to assist in making future decisions. Attitudes of the past which find reason after reason why a risk management program cannot be implemented will, of necessity, have to change.

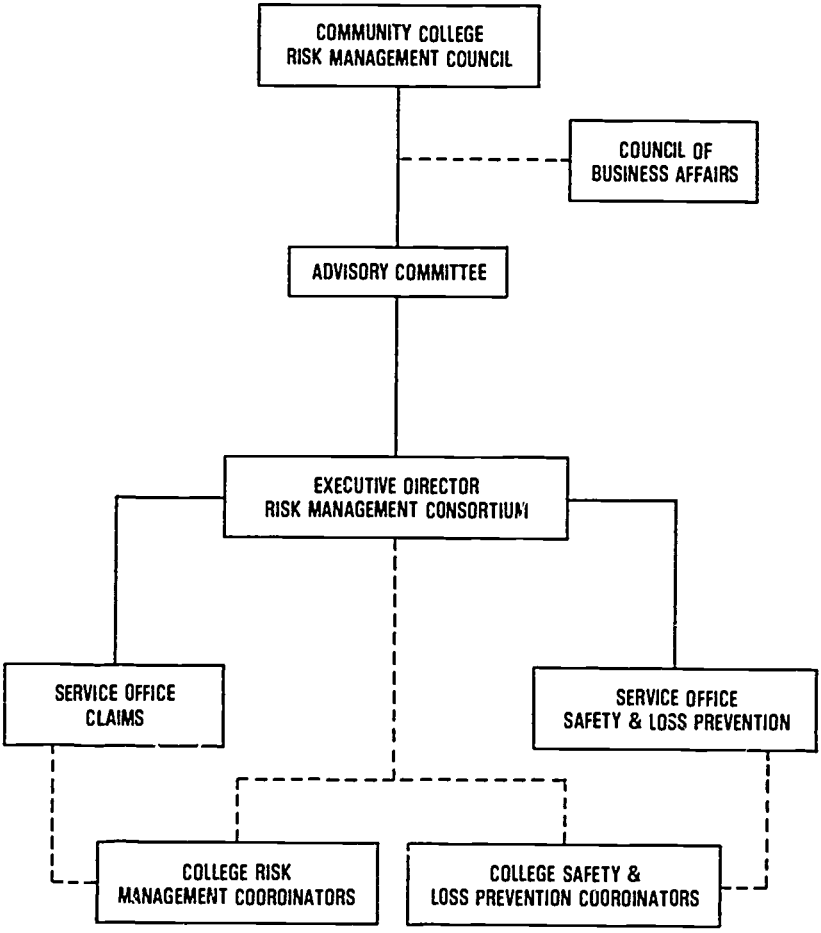
In Florida, the community college system faced the necessity of establishing a risk management program four years ago. The decision to begin a program was a proactive position to accomplish a method to control these ever increasing "fixed costs." As a result of their system's positive attitude, twenty-seven colleges now participate in a risk management program that has provided savings to the system in an estimated range of $4,000,000. In addition to the known cost savings, the program provides a central service of expert knowledge for colleges to call upon daily for their insurance needs. In addition, a loss prevention program has been put into place that seeks out exposures for accidents and makes recommendations to eliminate or minimize the accident potential before it happens.

The health and life program of the colleges is designed to eliminate unnecessary dollar costs, take advantage of volume purchasing and spreading the risk over a large group to stabilize insurance costs at an acceptable level. A vehicle has been established to evaluate benefit programs and their cost impact, to make recommendations for change, and to provide cost containment programs which are realistic and which can be expected to provide a cost savings. The health and life program provides cost incentives for those colleges willing to work "in-house" to reduce costs and as a means of recognizing those who do not.

The Florida Community College Risk Management Consortium organizational chart is shown in Figure 1. The presidents of the twenty-seven participating colleges compose the Community College Risk Management Council which is essentially the "Board of Directors." The Advisory Committee is a committee composed of officials from participating colleges; they are mostly in business affairs and employee relations and are members of the Community College Risk Management Council as a voting member. There are other members in an ex officio status from state level offices, the insurance carrier, and the executive director of the Risk Management Consortium. The executive director is an administrative staff position reporting through the Advisory Committee to the Community College Risk Management Council. It is important to point out

FIGURE 1

Florida Community College Risk Management Consortium Organizational Structure



that this individual is a full-time person trained specifically in risk management. It is not a part-time position or a person from one of the colleges temporarily assigned to the consortium. The executive director and the staff are full-time employees solely performing the consortium functions. The office staff processes claims and provides service to the college in all aspects of coverage including loss prevention. As shown in Figure 2, the cost of operating the office is about 3.35% of the total assessment. The information in Figure 2 is intended to show a four year chronology of the number of colleges participating in the consortium, the areas of participation, and the total assessments made. Figure 3

depicts the comparison between the original costs for insurance and estimated increases that would have occurred under the original plans with actual costs incurred by the consortium. Using a conservative 10% increase per year in the original plan, the consortium has provided savings in the 40–50% range annually.

In summary, the Florida Community College Risk Management Consortium has provided both economic and insurance coverage gains to the participating colleges. Although insurance continues to be an absolute necessity at participating colleges, the participants in the consortium have found the cost to be somewhat more fixed and to a large extent predictable within limits, from year to year and thereby making it more controllable in establishing an overall college financial plan. To that extent it has made the business officials jobs a little easier, or more accurately given them the capability of directing their attention to other "management opportunities."

FIGURE 2

Florida Community College Risk Management Consortium Growth Procession

1980

	Property	Casualty	Worker Compensation	Boiler Machinery	Allied Health	Intercollegiate Athletics	Health/Life	Participants
Year 1								
03/1/80–02/28/81	24 colleges	24 colleges	24 colleges	.....	.....	.....	.....	11,688
04/1/80–02/28/81	1 college	1 college	1 college	.....	.....	.....	.....	407
06/1/80–02/28/81	1 college	1 college	1 college	.....	.....	.....	.....	348
7/24/80–02/28/81	1 college	1 college	.....					
07/1/80–06/30/81				24 colleges				
09/1/80–09/1/81					18 colleges	.....	.....	9,689
11/1/80–09/1/81					1 college	.....	.....	71
Year 1 Totals	27 colleges	27 colleges	26 colleges	24 colleges	19 colleges			
Funding requirements by program		$1,656,729		$78,273.	$84,666			22,203
Total funding requirements	$1,819,668.							

1981

Year 2								
03/1/81–03/1/82	27 colleges	27 colleges	27 colleges	.....	.....	.....	.....	17,450
07/1/81–07/1/82				26 colleges				
09/1/81–07/1/82				1 college				
8/26/81–8/26/82					24 colleges	.....	.....	10,656
Year 2 Totals	27 colleges	27 colleges	27 colleges	27 colleges	24 colleges			
Funding requirements by program		$1,573,633		$84,634	$103,614			28,106
Total funding requirements	$1,761,881.							

FIGURE 2 Con't.

Florida Community College Risk Management Consortium Growth Progression

1982

	Property	Casualty	Worker Compen-sation	Boiler Machinery	Allied Health	Inter-collegiate Athletics	Health/ Life	Participants
Year 3								
03/1/81–03/1/83	27 colleges	27 colleges	27 colleges	.....	.....	.....	.....	18,855
07/1/82–07/1/83				27 colleges				
8/26/82–8/26/83					26 colleges	.....	.....	13,497
04/1/82–04/1/83							4 colleges	1,977
06/1/82–04/1/83							1 college.	134
10/1/82–01/1/84							2 colleges	354
11/1/82–01/1/84							1 college.	379
Year 3 Total	27 colleges	27 colleges	27 colleges	27 colleges	26 colleges		8 colleges	
Funding requirements by program		$1,858,056.		$88,628.	$136,632.		$2,498,929.	35,196
Total funding requirement	$4,582,245.							

1983

Year 4								
03/1/83–03/1/84	27 colleges	27 colleges	27 colleges	.....	.....	.....	.....	20,374
07/1/83–07/1/84				27 colleges				
8/26/83–8/26/84					26 colleges	.....	.....	14,178
04/1/83–08/1/84						1 college .	.....	101
08/1/83–08/1/84						16 colleges.	.....	1,281
09/1/83–08/1/84						1 college..	.....	
01/1/83–01/1/84							2 colleges	1,349
06/1/83–01/1/84							1 college	203
07/1/83–01/1/84							1 college.	737
04/1/83–01/1/84							8 colleges	2,844
Year 4 Totals	27 colleges	27 colleges	27 colleges	27 colleges	26 colleges	18 colleges	12 colleges	
Funding requirements by program		$2,381,647.		$84,197.	$136,552.	$43,850.	$4,497,971	41,067
Total funding requirements	$7,144,217							

Florida Community College Risk Management Consortium Four Year Comparison

	Property	Casualty	Workers' Compen-sation	Boiler Machinery	Allied Health	Inter-collegiate Athletics	Health/ Life	Participants
Year 1 Total consortium funding by program	27 colleges	27 colleges $1,656,729.	26 colleges	24 colleges $78,273	19 colleges $84,666			22,203
	$1,819,668							
Year 2 Total consortium funding by program	27 colleges	27 colleges $1,573,633	27 colleges	27 colleges $84,634	24 colleges $103,614			28,106
	$1,761,881.							
Year 3 Total consortium funding by program	27 colleges	27 colleges $1,858,056	27 colleges	27 colleges $88,628.	26 colleges $136,632.		8 colleges $2,498,929	35,196
	$4,582,245							
Year 4 Total consortium funding by program	27 colleges	27 colleges $2,381,647	27 colleges	27 colleges $84,197	26 colleges $136,552.	18 colleges $43,850.	12 colleges $4,497,971	41,067
	$7,144,217							
Grand Total by program		$7,470,065		$335,732	$461,464	$43,850.	$6,996,900	
Grand Total	$15,308,011							

$512,562	$15,308,011	3.35%
Consortium Office Operating Budget	Total Assessment	% to Administer Program For 4 Years

FIGURE 3

Cost Comparison Original College Plan Vs. Consortium Plan

Twenty Seven Community Colleges

Original College Plan		Original College Plan Rate Per FTE (27 colleges)	Consortium Rate Per FTE	Amount of Decrease	Per Cent of Decrease (Consortium over original college plan)
1979/80 Annual Financial Report General Current Fund Expenditure for Insurance	2,688,584				
1978/79 FTE					
Rate per FTE					
1980/81 Expenditure for Insurance	2,688,584				
Assuming 10% increase	268,858				
	2,957,442				
1979/80 FTE	÷ 162,185				
Rate per FTE 1980/81		$18.23	$10.49	$ 7.74	42.46%
1981/82 Expenditure for insurance	2,957,422				
Assuming 10% increase	295,742				
	3,253,164				
1980/81 FTE	÷ 164,650				
Rate per FTE 1981/82		$19.76	$ 9.44	$10.32	52.23%
1982/83 Expenditure for Insurance	3,253,164				
Assuming 10% increase	325,316				
	3,578,480				
1981/82 FTE	÷ 172,174				
Rate per FTE 1982/83		$20.78	$10.68	$10.10	48.6%
1983/84 Expenditure for Insurance	3,578,480				
Assuming 10% increase	357,848				
	3,936,328				
1982/83 FTE	÷ 183,101				
Rate per FTE 1983/84		$21.50	$12.90	$ 8.60	40.0%

Chapter 11.
Trouble Shooting Accounts Payables In The 80's

Suzette S. Pope

THE PURPOSE OF THIS CHAPTER is to discuss an area of business management which typically presents a problem to school business officials—paying vendors on a timely basis! The Accounts Payable Department often finds itself held in low esteem when employees have to wait for weeks for reimbursement of travel, when contractors must have payment in order to meet a weekly payroll and no check is issued, and when bottlenecks are routine and checks are simply not prepared.

In the late 70's, there was a movement by school suppliers to add a penalty to the invoice amount, for any bill unpaid for more than 30 days.[1] Many suppliers felt that if they were permitted to add up to 18% penalty that school districts would pay their bills faster. The National Audio-Visual Association (NAVA) sought relief for slow payments by asking the federal government to authorize penalties for schools getting federal money. The National Association of Wholesalers-Distributors agreed that schools should pay penalties, if they could enforce it. Many agreed that collecting from school districts had been a problem—forever! At the same time, school districts always have money to spend and are steady customers.

A major impact for vendors when payment remains past due is the high cost of borrowing. In the last four years when interest rates have escalated to 20%, a tremendous number of vendors have experienced adverse situations because of the inordinate amount of time involved by many governmental organizations in issuing the vendors payments to which they are entitled.

It has been estimated by the named organizations above that approximately 61% of school districts do pay bills promptly, i.e., within 30 days. The other 39% are considered to be troublemakers (do not bother us, we will pay . . .). They pay on average very late—up to 74 days late![2]

[1] "Dealers Debate Penalty for Schools that Pay Late." 1980. Nation's Schools Report. Vol. 6, No. 1 (January), p.1.
[2] Ibid., p. 2.

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What are some factors which impact on this necessary payables function which lead to poor performance and disgruntled vendors? Can problems be identified and corrected? In brief, is there hope that the unwieldy problems encountered in the payables process can be resolved?

Because of the current phenomenon of high interest rates, two issues surface:

1. The school system's cash management director could influence activities to move slowly to allow more funds for short-term investing, thereby maximizing interest income. If this procedure is followed, then the vendor will be intentionally penalized.
2. The payables process is impacted by various factors beyond the control of the personnel, and some vendors are denied timely payments, forcing them to borrow funds to operate, resulting in lost profit.

Organization

In the typical organizational structure, the Accounts Payable and the Purchasing departments are part of the Business Services or Business Management division and must work very cooperatively to accomplish the purchasing and paying objectives. The flow of transactions required from point of origin of a purchase requisition to a vendor check being mailed, is complex and time consuming. In most school districts,the following steps take place:

1. Schools and/or departments initiate a request for goods and services by preparation of a purchase requisition.
2. Second or third level authorization, as required (area, district, federal programs, capital building committee, etc.).
3. Clerical pool or data entry for obligation of funds (if this task is part of the budgetary control).
4. Buyers handle quotations and bids, as required.
5. Purchasing clerks finalize the purchase order and encumber.
6. Distribution of the purchase order to vendor, originator, accounts payable, property accounting, and others as required.
7. Vendor delivers goods and services to warehouse or school site.
8. Vendor sends invoice to Accounts Payable Department
9. Accounts Payable matches P. O. and invoice, awaits receiver.
10. Accounts Payable monitors the open order list and vendor files.
11. If a Receipt of Goods document is not sent from Receiver on a timely basis, Invoice section request same.
12. When all documents are received, Invoice clerks verify and batch payment voucher to Data Entry Unit.
13. All vouchers are reviewed and approved by supervisory level.
14. Data Entry inputs invoices for computer issued checks.
15. Vendor checks are distributed weekly, and all files are updated.

There may be variations but essentially, the flow is cumbersome to comply with necessary controls.

Problems Inherent in Payables Systems

A. Vendors

Vendors often cannot supply a full order, thus back orders create a problem. School policy may or may not permit partial payment on a normal order. If payment is delayed for completion of the order, this may be several weeks, and the vendor is penalized. If partial payment is made, duplication of effort and costs is incurred by the district. Often, vendors do not meet the delivery date which leads to follow-up work by A P Invoice clerks and buyers.

Another vendor problem is premature invoicing of several days to a month. Once the Invoice is received in A P, clerks attempt to match. Often, the purchase order is not received for two to four weeks, and a receipt of goods cannot be submitted until goods are received, and the receiver has his copy of the P O. When confronted about premature invoicing, vendors argue that they must issue the invoice upon receipt of a P O, and before forwarding the P O to shipping. Regardless of the actual shipping date, the invoice will be mailed to A P. There are three problems caused by this practice:

1. If the order was telephoned, and the P O given verbally, there will be a lapse of two to four weeks generally before the entire P O cycle is completed in the Purchasing Department and distribution of the P O copies. This will result in the A P Invoice clerk preparing a form, requesting the P O, or the status. This necessitates paperwork and time spent preparing form memos, logging, or telephoning for a P O, which should already be sent from Purchasing.

2. If the P O is released late, the invoice clerk may call or write (form memo) the school or department requesting a Receipt of Goods (R of G) before the goods are delivered and before the P O is received from the Purchasing Department.

3. The analysis of invoices and dates on a weekly payment cycle to determine efficiency and promptness in payment can be distorted. An example: vendor mailed invoice 8/25, the day after P O was received. Delivery was 10/26, two months later. The R of G was processed promptly, and the voucher entered into the payables online system on Nov. 2 with a check issued in the following week's register Nov. 10. This was paid within a 30 day period of delivery; however, the invoice date must be entered. No changes are made to documents in Data Entry, thus it will appear that this payment is nearly three months delinquent. Conversely, delivery tickets are signed sometimes three to four weeks before the R of G copy of originator's P O is stamped and signed. This problem reflects a heavy work load and inefficiency in the finalizing of P O documents.

A more elusive problem relates to discrepancies and/or broken and damaged goods. Some vendors have a good history of correcting such problems and clearing the way for early payment. Other vendors are remiss in the necessary determination of such items and their replacement. This can only build a poor performance image for the vendor, and delay his payment. It creates extra work for the invoice section trying to get a R of G. There is often blatant disagreement as to the cause and the need to replace items. Some P O's age gracefully while buyers, invoice clerks, and vendors have a sporting match of sorts to finally resolve a damaged shipment.

Another deficiency lies in the area of invoices being mailed by some vendors to individual schools or departments rather than to A P where distribution of mail is made twice daily. Often these invoices will be misplaced or ignored, and weeks go by; either an invoice clerk will be calling the buyer to determine the status of delivery and/or call the school to see if the invoice was received and the request of the R of G. This leads to great effort and invariably delays payment to the vendors. Parallel to this situation, some vendors invoice only periodically which results in their intentionally being paid late by their failure to act.

B. *Purchase Order Processing*

The current computerized budget and finance system which was implemented 7/1/83 contained an encumbrance module which allows purchase requisitions to be obligated immediately upon receipt, using a pseudo vendor number. The objective is to set aside funds, at least an estimated amount for the goods requested, to assure that the buyer's efforts to acquire items will not be futile. Prior to the obligation process, it was not uncommon for buyers to go through all the steps for quotations and prices then have the requisition rejected at point of encumbering, due to lack of funds. After the requisition is converted to an official P O, the documents are separated for the distribution, but only after each buying area verifies the P O's were correctly encumbered, which is time consuming, and causes A P problems. Many times, invoices are received several days and sometimes two to three weeks prior to the P O. Documents are hand delivered between Purchasing and the Accounts Payable departments, at least twice daily to expedite the flow and minimize lost documents. A very bothersome problem is the great number of P O's which need an increase in the encumbered amount before payment can be made. Often the prices quoted to the buyers are not the most current, and the invoices will reflect the actual unit price. The budgetary control of this system allows a maximum of a 10% override, but many prices are fluctuating and the supplier is still in control. The impact is an increased charge to the budget and decreased efficiency. The matching of the invoices to the P O reveals the variance and at that point, the Invoice Clerk must log the activity and note the reason the return of

the P O to the buyer who must approve the increase. Then the document must go through data entry in purchasing, be verified on a subsequent computer printout, then logged out as the document is returned to A P. This takes time and often the buyer or his assistant have other priorities so the request for the budget increase may not receive prompt attention. Meanwhile, the vendor awaits payment. The price increase can be solely for shipping, and if the amount exceeds the 10% tolerance, the above steps must be repeated. The negative impact is a delayed payment.

An infrequent delay in payment involves the necessity to change the vendor number. In peak work periods, this can be delayed, thereby penalizing the vendor. If the remittance advice requests that the check be sent to a different address, then the number must be changed. Thus the documents must be returned to the purchasing officer who controls the vendor numbers. Thus, there is another delay which is impacting the vendor. Should the P O be assigned an incorrect number initially, procedures are in place to verify the actual check to the supporting documents before the check is released. If the staff fails to catch the variance in that process, the final step in the check distribution section will detect the error. At this point, an erroneous payment requires voiding a check, re-encumbering the P O, and re-submitting the documents with correct data. Vendor follow-up by buyers for discrepancies of any kind can be lengthy. Any variations must be approved by upper level administrators.

C. *Receiving*

One of the major problems which has existed lies in the receiving area. Principals have been advised to assign one person to act as the receiver of all goods delivered, verify that goods were received as ordered or as specified, and submit the necessary receiving report to the A P. Many schools have this practice in effect, and it works well. Unfortunately, poor follow-ups still exist in many school centers and departments which require invoice clerks to telephone, and/or send repeated requests for the R of G. Naturally, the vendor involved will be penalized. Often, school clerical staff insists that the R of G was sent; mail service insists that all mail is properly delivered; yet, A P still awaits the documents. To prevent lost documents, and because of the inordinate volume of mail received, A P has clerks trained and assigned to the mail distribution task. All mail is promptly opened, date and time stamped in, sorted and delivered to the respective invoice clerk or administrator. Considerable duplication of effort is required when the A P has to struggle to obtain the receiving report, and again, the vendor is the victim, waiting for a check.

D. *Confirmation Purchase Order*

The unique needs of certain departments, such as Media, Maintenance, Security or others, require the use of the Confirmation P O.

Generally, the buyer will telephone the order, give the appropriate P O number to be issued, and the vendor delivers or allows pick up on this basis. This meets the users need, but often the vendor is penalized. The time frame is inexorably slow to process the Confirmation P O. Meanwhile, the vendor's invoice will be received with a P O number, but must be placed in the vendor pending file, since neither the required P O nor the R of G is available. An infrequent but serious problem arises when a buyer issues the same number to a second vendor, generally due to failure to issue the P O immediately. Although the Confirming P O would appear to be more quickly processed, it has resulted in some serious problems. Prices quoted by telephone are frequently incorrect, and invoices reflect a different-price.

E. *Vendor Maintenance*

In the past, vendor maintenance was assigned to the Accounts Payable Department, but during the latest reorganization, the function was placed in Purchasing. Often invoices are received requesting payment to be made to a subsidiary with a different address. This necessitates forwarding the voucher to Purchasing for the vendor number to be changed. Sometimes after a vendor receives a Purchase Order, he finds delivery cannot be made. Then, the Buyer places the order with a different vendor, but fails to change the vendor number, although he may have changed the name. This results in a check being issued to the wrong vendor, which will normally be detected in the check to document verification before releasing checks. Even so, it means voiding the check, re-encumbering the P O, re-submitting in the next payment cycle, causing the vendor to wait another week or more to be paid. Some companies have multi vendor names: for example, the telephone company, power company, and major newspaper. Mistakes can occur in selecting the proper number, and subsequently, posting to the wrong accounts within those companies which creates complaints about past due amounts on other accounts. If this occurs very often, a nightmare can evolve, attempting to straighten out how the specific payments had been applied.

F. *Invoice Function*

The basic function of the invoice clerk is receiving the P O, invoice, and R of G from the appropriate source, verifying the invoice items and prices, and supplemental item list, then matching these two documents to a properly authorized receiving report. The preparation of the payment voucher would complete the P O unless a partial payment is approved. The open purchase order file will be posted, and the batched documents submitted to a supervisor for review and signature if the documents are in good order. Hourly and daily, the vouchers are submitted, for data entry to input for computer issued checks on a weekly cycle. This sounds simple

enough. However, payment is delayed if any one document is missing. Also, discrepancies occur which may be resolved quickly, or may take weeks or months, depending upon the severity of the problem. Many delays occur when invoice clerks must return P O's to Purchasing for increases or a supplement for an extended P O for certain contracted services such as Xerox copiers. Needless to say, in a large urban school system, large quantities of paper flow between departments. Occasionally, important documents are misplaced or lost, creating a new problem and another delay in paying vendors. Such delays in receiving any required document in A P necessitates more follow-up to speed up the completion of a payment. Where does the buck stop, or who generally gets blamed for slow payments? Usually, all fingers point to the Accounts Payable Department, regardless of the factors.

An area of unique problems is the processing of payments on federally funded projects, especially near the close of such projects or in the few weeks following project termination. Without a doubt, this is one of the most frustrating tasks because project managers often order late in the grant period, and the turnaround time in requesting signatures and the purchasing cycle will result in a P O being issued well beyond the reasonable time. This ultimately causes great difficulty in the finalizing of payments within the allowed time frame. Both administrators and clerical staff must "go the extra mile" and yet vendors still get caught in the middle of this type of problem. Often, the delivery date is the crux of the problem, and most often, the receiver fails to send the R of G or does not respond to requests for it.

G. *Types of Exceptions*

If follow-up items are not resolved quickly, they tend to fall in the background while buyers and invoice clerks alike respond to the crush of new work which is often overwhelming. Gradually, items become stale. Vendors may resort to threats, calls, or nasty letters to the superintendent, or they put the school system on a pay as you go basis if they encounter repeated problems and lengthy delays in getting their payments.

School personnel not knowledgeable about the purchasing and paying procedures can create serious problems. A case in point was a coordinator at the district level who had a purchase requisition typed; then he mailed it to the vendor who shipped the materials. Later, an invoice was sent directly to the originator who did nothing with it. Fortunately, it was a patient vendor. Ultimately, clerical staff from the department involved, sought help from the A P and were advised that payment could be made on a general authorization, thus finally paying the bill more than a year and half late.

A very serious problem discovered within the Accounts Payable Department was the carelessness of the vendor file monitoring. Often, invoices received before the P O or R of G could not be worked, so it

would be filed, and sometimes forgotten, especially if a P O was not received within a short time. This was a widespread problem causing many vendors to become irate. Many unresolved problems remained in the vendor files simply because the invoice clerk had exhausted her effort, and there was inadequate supervision or further assistance. Serious problems can arise when paying on photocopies. Every effort is now made to avoid this except in certain P O's where monthly or periodic partial payments are authorized.

III Solutions to Identified Problems

Some actions taken to resolve serious problems with vendors or a backlog or unpaid notices in a school system include the following:

1. Changed the line of reporting.
2. Appointed new administrators to manage the department; designated team leaders to supervise small clusters of clerks; divided vendors into groups.
3. Took a document inventory to ascertain the number and age of the P O's and invoices on hand.
4. Beefed up the clerical effort; set priorities and deadlines; monitored.
5. Tackled old discrepancies, and worked closely with vendors and buyers to resolve serious issues.
6. Screened all follow-up items going to Purchasing, and intervened in all aged documents to discern the type of problems and action.
7. Analyzed the payment register to determine the degree of current invoices being paid and the percentage of those overdue.
8. Made a conscientious effort to be responsive to vendors' complaints.
9. Developed a special large orange mailer envelope for R of G use only.
10. Resolved past due Credit Memos; requested refund checks when necessary.
11. Required reconciliation between the open purchase order file and vendor file (computer listing).
12. Set priority to cancel all invalid purchase orders still in the system.
13. Used priority application in the payables system to expedite payments.
14. Designated a prefix for the P O number issued for Student Activity Fund's purchases.
15. Set deadlines for feedback on follow-up items sent to purchasing.
16. Issued directives to schools for proper receipt of goods processed.
17. Researched questionable items and satisfied vendor claims.

IV Plans for Strengthening the Department's Function

In the last several months, much of the trouble shooting is settling down to a more routine, methodical review of all the problem areas while still putting out fires for the isolated instances which may surface now and then. Accounts Payable is a dynamic department where peaks and valleys occur—mostly peaks, in striving to make timely payments and monitor all vendor accounts properly. What about the future plans to make the operations even better. The following actions are in the implementation stage or are anticipated very soon:

1. Supervisor reviews the log kept by each invoice clerk at least monthly to determine the response time from purchasing of follow-up documents.
2. Team leaders will work more intensively with assigned clerks.
3. Invoice analysis will be used to aid in rapid research of vendor complaints.
4. Supervisor will continue intervening on special types of exceptions.
5. Monitor closely the invoice section for productivity, level of completion, and degree of professionalism demonstrated.
6. The Supervisor and Assistant Supervisor will be very visible and available to solve problems on the spot or as expeditiously as possible.
7. Utilize computer statistics to evaluate clerical output.
8. Coordinate with Data Processing Project Manager in finalizing a tailor made "matching" concept and the production of a printout daily of all documents received in the department.
9. Use the new printout to evaluate the possible work overloads and points of weakness in terms of missing documents.
10. Continue to analyze the weekly payment register and compile statistics reflecting the percentages and dollars of aged invoices striving to reach an "all current" level.

Other measures will be considered as time passes, such as specific in-service training, re-grouping of vendors as work loads shift, revision of forms, improving response time from schools, reclassification of personnel, ways of reducing paper handling between departments, and better use of computer files.

The total effort put forth by the staff in the Accounts Payable Department to overcome the negative image, correct problems, develop more efficient work habits, and prevent serious problems from recurring has been a resounding success. There is an air of confidence, a willing and happy spirit, and a note of pride in one's work. Trouble shooting in any department can be a challenge, but in an Accounts Payable Department filled with almost insurmountable problems, the level of solid accomplishment in a short period of time is certainly deserving of the praise which

was given by the external Audit Committee, the Superintendent, and the outside CPA firm auditing the school system.

Abbreviations used:

A P Accounts Payable Department
P O Purchase Order
R of G Receipt of Goods

Chapter 12.
Property Management

Gerald R. Menefee

PROPERTY MANAGEMENT HAS BECOME one of the most important functions performed by the school business official.

With a legacy of focus on land acquisition and facility construction dating back to the time when most districts were growing, its significance waned during the years of stable enrollment. Many administrators changed the focus of the property management function toward inventories of equipment and capital improvement. More recently, however, the era of declining enrollments is upon us, and we have renewed our interest in and concern about management of our properties.

The research committee of the Association of School Business Officials of the United States and Canada (ASBO), charged with responsibility for property management, has given careful deliberation to its name. It has published a listing of "what property management is" and "what property management is not" which follows:

Property management includes such considerations as school closures, alternative land uses, alternate building uses, upgrading and rehabilitation of property, community considerations such as planning and zoning, funds disposition resulting from property actions, and fixed assets (inventories).

Property management does not include considerations of political dynamics, organization structures, school maintenance, and operations functions.

In the classical sense of considering management functions, one could say that the management of property focuses on the most effective and efficient use of properties.

Property is either "real" or "personal." Real property includes land and improvements; personal property includes equipment. Some of the contemporary issues dealing with classifications are identified in the following table.

Real Property	Personal Property
During the geographical growth years preceding the 1960's, the major focus was on acquisition of inexpensive sites and construction of buildings.	Prior to the 1960's most equipment inventories were kept on hand-prepared ledgers with few, if any, records for the older equipment.
The declining enrollments of the 1970's resulted in alternative short term uses of facilities.	In the 1960's EDP systems cataloged inventories and over a period of time the old equipment was purged.

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The 1980's may realize some resurgence of enrollments, some disposition of excess property, and some re-evaluation of joint property uses.

In the 1970's CPA's established modified ideas about setting values of properties.

Property is an asset. Real property is classified by accountants as fixed assets. Equipment may, by its established life, be fixed or a current asset. In fact, some of us now realize that low cost equipment is best treated as a (disposable) supply item not subject to inventory.

In a contemporary setting, we are all re-thinking our values about how we use our properties in the context of asset management. As our traditional resources dry up, we may find it appropriate to declare parcels, or portions thereof, as excess to educational needs so that we may seek disposition of these parcels to infuse capital into our general purpose budgets. The forty acres purchased for a high school site more than twenty years ago may yield ten acres to more-precisely-defined educational needs of the 1980's. And ten acres of land in a developed area will yield capital that will be of great help to the short term needs of the school district.

William Brubaker of the Chicago architectual firm, Perkins & Wills, has extensive research data on the changing attitude of communities and educators to co-existence of school programs housed in and sharing facilities with other public and private enterprise. Many older public schools have been converted into condominiums or units. In fact, the typical nine-hundred square foot classroom has been converted into a comfortable one-bedroom apartment by more than one architectural approach. Some older schools have been converted into interesting shopping mall arrangements as well as the more typical library or other public building or community center. Brubaker also has illustrations of new school sites designed for multiple uses wherein the public school classrooms may be found cohabitating with retail shops or community project centers.

The day of the traditional school site development now may well be shared, if not dominated, by alternative considerations. With school student populations still trending downward in the majority of geographical areas, we must manage our properties with greater concern for how we use the publics' tax monies and with greater creative efforts towards a return on the communities' investment. As the tax base erodes or is subject to tax reform and thus removed from consideration, many school districts are thinking more about property management as asset management. The appreciated value of sites held as the community matured are of major significance. This value can maintain the educational programs or enrich the facility needs of the school district and, in doing so, bring that appreciated value back to the community where it is needed. The author is currently negotiating the sale or (long term) lease of one-third of the acreage of a high school site. The acreage exceeds the needs of the school and is situated alongside a major freeway—a poor choice for educational use, but a valuable location for industrial development. This ten acres,

acquired years ago for approximately $10,000, now has a value of approximately $10,000,000, clearly an example of how property management and asset management are not separate issues.

The aforementioned example is not unique. The ASBO Property Management research committee is currently compiling information on property management projects which will provide detail illustrations and further examples of how school business officials are and can help their school districts manage property more effectively.

Chapter 13.
School Bus Accident Investigation

Charles T. Button and Watson I. Goodrich

SCHOOL BUS ACCIDENTS WILL OCCUR despite the efforts of the entire population of a school community to avoid them. Since school buses and students must share the public highways with all of our motoring public, there is no known way of preventing all accidents. When accidents do occur, and even a near accident should be studied as an actual accident, the situation must be investigated and reported by competent and trained personnel.

An accident investigation is nothing more than an organized, systematic search for facts. The investigator must determine, as accurately as possible, what happened and why. Once these questions are satisfactorily answered, you must determine what can be done to prevent a similar recurrence. Areas demanding evaluation are human behavior (bus drivers, passengers, other motorists and pedestrians), vehicle design (type of seats, padding, lights, structure, etc.), characteristics and the environment of the accident (visibility, road surface, water, traffic flow, etc.).

The investigator must first determine the cause of the accident. What really happened? Was it a matter of human error which may be corrected? Was the problem related to a weakness in operating rules and regulations? Was the school bus defective or did the environment outside the bus contribute to the cause of the mishap? Or was there a combination of factors which must be considered as joint or contradictory causes? Important here is the ability of the investigator to concentrate on gathering all information which led to the accident.

Once the reasons for the accident are understood, we must identify what actions may be taken and what improvements can be made to prevent similar accidents from occurring in the future. The scope here is broad. In an accident, we may have to consider revision of driver and/or student safety programs, structural changes on the vehicle, changes in law, rule, or regulation, or changes in routing or local operating policy.

Not to be minimized is the need to document the facts involved in an accident for use in instances of compensation and litigation. Many times a school has been placed in an embarrassing situation when an attorney for

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the school or for the injured party has asked the administration to produce facts concerning an accident situation. The report produced at the conclusion of an investigation becomes the permanent record of facts involved in the accident. School administrators can breathe more easily when they know that an accident situation can be reconstructed years after its occurrence because the details of the accident have been recorded properly and accurately.

There are peripherally important aspects to accident investigation. Follow-up by the investigator can identify the costs associated with accidents. Costs can be divided into two categories, direct and indirect.

1. *Direct Costs*
   a. Medical expenses
   b. Compensation costs
   c. Property damage
   d. Lost time substitute service
   e. Lost student time—home teaching, special transportation, etc.
2. *Indirect Costs*
   a. Supervisor's time
   b. Liability claims, suits, etc.
   c. Insurance premium increases

Another reason for conducting a thorough investigation concerns a psychological (as opposed to material) benefit. The investigation itself projects a good image of the school's interest in safety and health. The involvement of staff in the investigative process promotes cooperation which is vital to the overall pupil transportation safety program.

Despite what many people believe, accident investigation is fact finding, not a fault-finding process. When attempting to determine the cause(s) of an accident, the novice is tempted to conclude that the person involved in the accident was at fault. But if human error is chosen when it is not the real cause, the hazard which caused the accident will go unobserved and uncontrolled. Furthermore, the person falsely blamed for causing the accident will respond to the unjustified corrective action with contempt and alienation. Such alienation will discourage future cooperation and undermine respect for the school's safety program. The intent of school bus accident investigation is to pinpoint causes or error and/or defects so that similar incidents can be prevented.

When a school bus accident occurs, it indicates that:

1. Something has gone wrong in the driving process, with the bus or with people and/or objects outside the bus.
2. Someone failed to perform a task properly.
3. A hazardous condition existed without adequate safeguards.
4. A school bus or designated route has defects and dangers which only recently have become known.

As a general rule, all school bus accidents, no matter how minor, are candidates for thorough investigation. Many accidents that occur are considered minor because their consequences are not serious. Such accidents—or "incidents," as some people interpret them—are taken for granted and often do not receive the attention they demand. School administrators, bus drivers, and transportation supervisors must be aware that serious accidents arise from the same hazards as minor "incidents." It is usually sheer luck that determines whether a hazardous situation results in a minor incident or a serious accident.

Immediate, on-the-scene accident investigation provides the most accurate and useful information. The longer the delay in examining the accident scene, interviewing the injured party(ies) and witnesses, the greater the possibility of obtaining erroneous or incomplete information. The accident scene changes, memories fail, and people talk to each other. Whether consciously or unconsciously, witnesses may alter their initial impressions to agree with someone else's observation or interpretation.

Prompt school bus accident investigation also expresses a feeling of concern for the safety and well-being of the pupils and the driver.

Conducting an accident investigation is not simple. It can be very difficult to look beyond the incident at hand to uncover causal factors and determine the true loss potential of the occurrence and develop practical recommendations to prevent recurrence.

A major weakness of many accident investigations is the failure to establish and consider all factors—human, situational, and environmental—that have contributed to the accident.

The investigator must be ready to acknowledge as contributing causes any and all factors that may have, in any way, contributed to the accident. What might at first appear to be a simple, uninvolved accident may, in fact, have numerous contributing factors which may become more complex as analyses are completed.

Listed below are some questions that are generally applicable and considered most often by accident investigators:

1. What was the school bus driver doing at the time of the accident?
2. Was the driver on a scheduled trip? Was he or she qualified to drive the bus? Was he or she familiar with the bus and the route being taken?
3. What were the pupils doing at the same time of the accident?
4. Was the proper bus being used for the task at hand?
5. Was the driver following approved procedures?
6. Was the bus or the trip new to the employee?
7. Was any other vehicle involved in the accident? What was the other driver doing that contributed to the accident?
8. Had the bus driver received the required training prior to the accident?

9. What was the location of the accident? What was the physical condition of the area when the accident occurred?

10. What immediate and temporary action(s) could have prevented the accident or minimized its effect?

11. What long-term or permanent action(s) could have prevented the accident or minimized its effect?

12. Had corrective action been recommended in the past but not adopted?

During the course of the investigation, these questions should be answered to the satisfaction of the investigators. Many other questions will come to mind as the investigation continues. They also should be recorded.

Interviewing accident or injury victims and witnesses can be very difficult if the assignment is not handled properly. The individual being interviewed often is fearful and reluctant to provide facts about the accident. The accident victim may be embarrassed, afraid of disciplinary action, or hesitant to talk for any number of reasons. A witness may not want to provide information that might place blame on friends, fellow workers, or possibly one's self. To obtain the necessary facts during an interview, the interviewer must first eliminate or reduce fear and anxiety by developing rapport with the individual being interviewed. It is essential that the interviewer clear the air, create a feeling of trust and establish lines of communication before beginning the actual interview.

Once such rapport has been developed, the following five-step method should be used during the actual interview:

1. Discuss the purpose of the investigation and the interview (fact finding, not fault finding).

2. Have the individual relate his or her version of the complete accident with minimal interruptions. If the person being interviewed is the one injured, ask the person to explain where he or she was, what the person was doing, how he or she was doing it, and what happened. If practical, have the injured person or eyewitness explain the sequence of events which occurred at the time of the accident. When someone is at the scene of the accident, he or she will be able to relate facts that might otherwise be very difficult to explain.

3. Ask questions to clarify facts or fill in any gaps.

4. The interviewer should then relate his or her understanding of the accident to the injured person or eyewitness. Through this review process, there will be ample opportunity to correct any misunderstandings that may have occurred and clarify, if necessary, any of the details of the accident.

5. Discuss methods of preventing recurrence. Ask the individual for suggestions aimed at eliminating or reducing the impact of the hazards which caused the accident to happen. By asking the individual for ideas

and discussing them with him or her, the interviewer will show sincerity and place emphasis on the fact-finding purpose of the investigation, as it was explained at the beginning of the interview.

Interviewers should remember and follow these important guidelines:

1. Conduct interviews as soon after the accident as practical.
2. Delay interviews with the injured until he or she has received medical treatment, no matter how minor the injuries. If the injured feels that his or her best interests are being placed second to a report, that person is not apt to cooperate.
3. Interview one person at a time.
4. Avoid making witnesses feel that they are informers.
5. Be diplomatic.
6. Put witnesses at ease.
7. Explain the purpose of the investigation.
8. Keep questions as simple as possible.
9. Avoid the implied answer or leading question.
10. Never ridicule a witness.
11. Give the person being interviewed the opportunity to present his or her version, in its entirety, without interruption.
12. Review the details of acquired information.
13. Discuss methods to prevent recurrence.

All school districts should take steps to: (1) develop a written procedure for school bus accident investigation; (2) designate and train one or more members of the staff to conduct the investigation; and (3) take the necessary action, based on each report, to eliminate the factors which contributed to the accident. Local school district policy should make it very clear that accident investigation is the most important task for the designated individual following an incident.

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