Although efficiency in education has been a long-standing concern, school districts are not rationally or scientifically managed or run in a businesslike manner. Yet this lack of efficiency may not be the result of poor management by school district administrators. School district managers are forced to respond quickly to an ever-changing melange of requirements and programs, have virtually no real authority to make basic personnel decisions, and have no incentives for acting efficiently. For instance, districts are often required to discharge or promote personnel without reference to merit criteria. Administrator promotions are sometimes based on certification rather than qualities or contributions. Teachers are often forced to allocate instructional time to non- instructional activities like test administration and filling out forms. Finally, seniority rights and state-level retirement systems often force school districts to retain expensive staff. Thus, the cause of school district inefficiency may be found in state agencies that legislate what districts are to do. There will be little improvement in school district efficiency until state officials give district-level administrators significant discretionary authority. The greatest potential for improvement in public education today may be found at the state level.

(Author/IM)
EFFICIENCY IN THE ADMINISTRATION OF PUBLIC EDUCATION

GUILBERT C. HENTSCHKE

Public Law 93-380
Section 842 Staff:

Orlando F. Furno, Director
William J. Fowler, Jr.
James G. Gaughan
Charles T. Nephew
INTRODUCTION

EFFICIENCY IN EDUCATION: A LONG-STANDING CONCERN

HOW SCHOOL DISTRICTS OPERATE

ARE THE MAJOR CAUSES OF INEFFICIENCIES TO BE FOUND IN SCHOOL DISTRICTS?

SIX ILLUSTRATIONS OF "INEFFICIENCIES" WHICH SHOW UP IN SCHOOL DISTRICTS

1. Discharging Personnel Without Reference to Merit Criteria

2. Promotion by Non-Merit Criteria

3. Personal Decision Not to Seek a Superintendency Position Based on Non-Merit Criteria

4. Evaluating Programs Using Non-Productivity Criteria

5. Allocating Instructional Time to Non-Instructional Activities

6. Retaining More Costly Teachers Than Are Desired

CONCLUSIONS
INTRODUCTION

It is almost axiomatic today to decry the economic stringencies facing the public elementary-secondary education sector and accordingly to call forth renewed efforts for improved accountability, efficiency, productivity, and managerial competence in the schools. The education sector of society is declining. While not being able to counter this trend directly, administrative efficiency can provide a method for "orderly reduction" during the foreseeable future.

Recently an agent from a large insurance firm observed that the source of leadership in his company was highly correlated with economic cycles. "During good times the president is invariably selected from the marketing division. During hard times he is selected from the actuarial division." So in public education in good times we tend to seek leaders with bold new (additional) program ideas and the talents for mobilizing the requisite forces and resources. Times are not so good and we find ourselves searching for leaders who can deliver quality education while being "creative dismantlers," "cost conscious," "hard-nosed."

This discussion paper is written in the "times are hard" framework. Its purpose is to stimulate discussion about six "inefficiencies" in public education as well as strategies for remedying them. Before discussing the six areas of inquiry, I would like to trace some of the history of efficiency concerns in education, and then to make a few statements about how schools seem
to operate. Both of these really serve as premises for suggestions I make at the end of the paper.

EFFICIENCY IN EDUCATION: A LONG-STANDING CONCERN

Efficiency in schools has meant many things to many people. However, there are several overlapping concepts which are often in the minds of people using the term: rationally, scientifically managed; run in a business-like manner; results-oriented; concerned with expenditure control; technologically logical. Spokespersons for efficiency in schools have, at least from the turn of the century, argued their cause from the conviction that the public education sector is woefully lacking these elements.

While pressure for efficiency in education may have originated from the business community, a sizeable sector of the education profession has carried the banner for more efficient operation of schools. In his important work on this topic, Callahan, (Education and the Cult of Efficiency, Chicago, The University of Chicago Press, 1962) traces the influence of preeminent superintendents and education professors in the early crusade for efficiency. The major disciples were Babbit, Spaulding, Cubberly, and Strayer. The tangible effects of the crusade were the platoon school, specialized teachers, teacher evaluation, the school survey, the study hall and cost accounting. The net effect in Callahan's opinion is that educators took on more the role of technicians/mechanics and less the role of educational philosopher/statesman, a "major tragedy in American education."
the essence of the tragedy was in adopting values and practices indiscriminately and applying them with little or no consideration of educational values or purposes. It was not that some of the ideas from the business world might not have been used to advantage in educational administration, but that the wholesale adoption of the basic values, as well as the techniques of the business-industrial world, was a serious mistake in an institution whose primary purpose was the education of children. Perhaps the tragedy was not inherent in the borrowing from business and industry but only in the application. (p. 244)

Applications in the name of efficiency included: studies showing that larger class size was less expensive and no less effective; recommendations for school consolidation; growth of specialization of the teaching staff; annual reports laden with cost information and various indices; and management surveys. These and other efficiency concepts permeated the curriculum of emerging programs in educational administration. The inherent vulnerability of public school administrators, strong public opinion, and the desire to "professionalize" school administration, all encouraged administrators to embrace efficiency and technical competence in their training and in their work. Status (and defense from the community) resulted from a superintendent giving the appearance of administering scientifically. Yet, to Callahan, such a stance ultimately short-changes the ends of education. The problem, in Callahan's eyes, exists today.

Until every child has part of his work in small classes or seminars with fine teachers who have a reasonable teaching load, we will not really have given the American high school, or democracy for that matter, a fair trial. To do this, America will need to break with its traditional practice, strengthened so much in the age of efficiency, of asking how our schools can be operated most economically and begin asking instead what steps need to be taken to provide an excellent education for our children. We
must face the fact that there is no cheap, easy way to educate a human being and that a free society cannot endure without educated men. (Callahan, p. 264)

At the risk of oversimplifying, we can say that Callahan felt that education was too important to be subject to efficiency-minded noneducators. Thomas James picked up the argument in 1968 half a dozen years after Callahan and (again at the risk of oversimplifying) argued that education was too important not to be administered scientifically. In his Horace Mann Lecture of that year (The New Cult of Efficiency and Education, Pittsburgh: University of Pittsburgh Press, 1969) James traces the "new cult of efficiency" from the 1946 Hoover Report on efficiency in government. Subsequent related events include the development of operations research, general systems theory, cybernetics, and more recently, cost-benefit analysis and program budgeting. These represent renewed efforts to analyze the operations of social institutions, including schools. The evolution over half a century of the concept of efficiency is noticeable. The criticisms of school administration are less simplistic and strident. The concern is broader than cost savings and deeper than cost indices. The rationalizing and optimizing assumptions of microeconomists are more apparent and explicit. As in the earlier wave of efficiency, the historic lack of business training in education is still deplored. However, concrete proposals for remedying this malady are proposed by James (joint programs leading to M.B.A. and Ed.D. degrees).

Without having to agree that efficiency concerns represent
the tragedy described by Callahan, it can be said that James's Horace Mann Lecture is in the tradition of Cubberly, Strayer, and other efficiency-minded educators. He is representative of many today who are advocating more rational budgeting, planning, and analysis procedures in school districts. The recommendation of the Committee for Economic Development is an example.

We urge immediate exploration by school administrators of the application of program accounting techniques in order to identify costs in school systems and to take advantage of cost comparisons. The adoption of such techniques by school districts will be advanced greatly if assistance and leadership in this area are provided by state departments of education and by university schools of business, economics, and education. In applying cost-effectiveness analysis over the whole range of school investments and costs, we urge school districts to explore thoroughly the possible benefits that will result if the use of school facilities is extended by various means to include periods during which they are not used.

We strongly recommend that broad-based studies be made of the costs and benefits that can be expected if the various technologies involving audiovisual equipment, television, computers, and other devices are applied to instruction in the schools on a wide scale. Such studies should take into account the benefits that may be obtained through increasing the effectiveness of the learning process at the same time that they weigh the effects of the new resources in terms of the organization of instruction, teacher pay schedules, productivity, probable use by teachers, and other vital matters. ("Innovation in Education: New Directions for the American School," New York, The Committee, 1968, p. 19)

The tradition of efficiency for school districts continues unabated into the 1970s. Recent interest in zero-base budgeting and management by objectives are testimonials that this is so. While the techniques of efficiency have grown increasingly sophisticated, several aspects of the efficiency tradition have remained surprisingly consistent. For one, there remains little
in-depth analysis by efficiency advocates of how school districts operate and why. To be sure we have assumed that districts could be operated more efficiently, and that district administrators are in the best position to bring about increased efficiency. But without adequate descriptive models, we don't really know how useful our normative models are. If we look to one cause of inefficiency in school systems, it is the lack of appropriate training of school district personnel.

Second, the focus on efficiency has somehow stayed on the local school district. Most of the books and articles on modern methods of management are aimed at the school district. For all of the rhetoric about education being a state-level responsibility and for all of the increased influence of the federal government in education, the "heat" for increased efficiency in education has not risen to these heights.

In order to add something new to this long-standing concern for efficiency in the schools, we should first question the two very interrelated assumptions implied above—that our beliefs about how school districts operate are reasonably correct and that the major causes of inefficiency in school districts emanate from school districts.

HOW SCHOOL DISTRICTS OPERATE

I have found two descriptions of how school districts and other organizations operate to be in accord with my experience in school districts. One emphasizes what managers do and the other
emphasizes how districts are organized and operate. Both point out, to me at least, that previous assumptions about how districts operate should be reexamined before remedies are applied. Mintzberg's work ("The Manager's Job: Folklore and Fact," Harvard Business Review, July-August, 1975, pp. 49-61) on the behavior of managers indicates that several assumptions about managerial behavior are simply not true: (1) the manager is a reflective, systematic planner; (2) has no systematic duties to perform since his/her job is to plan and delegate; (3) needs aggregated information, which a formal management information system best provides; and (4) as a manager, is quickly becoming a member of a science and a profession. On the contrary, (1) their activities are characterized by brevity, variety, and discontinuity. They are strongly oriented to action and dislike reflective activities. (2) The manager has many regular duties to perform, but they include handling exceptions, performing ritual and ceremony, conducting negotiations, and processing soft information that links the organization with its environment. (3) Managers strongly favor the verbal media (telephone calls and meetings). Further, managers seem to cherish 'soft' information, especially gossip, hearsay, and speculation. "Every bit of evidence suggests that the manager identifies decision situations and builds models not with the aggregated abstractions an MIS provides, but with specific tidbits of data. (p. 52) (4) The managers' programs--to schedule time, process information, make decisions, etc.--remain in their heads. We may call it judgment, intuition, etc., but it really implies that we don't
know the decision rules in operation. If "science" involves the
enactment of systematic, analytically determined procedures or
programs, then we are a very long way from being able to specify
those procedures and, hence what school managers should learn.

So much for how managers operate. What about the organiza-
tion and operation of schools, the context in which educational
managers work? For this perspective I draw heavily upon the works
of Weick ("Educational Organizations as Loosely Coupled Systems,"
Administrative Science Quarterly, March, 1976, pp. 1-19) and Meyer
and Rowan ("Notes on the Structure of Education Organizations:
Revised Version," American Sociological Association, San Francisco,
1975, mimeo). Many of the negative observations of schools (e.g.,
schools are not run in a businesslike manner) make sense only if
we assume that school districts are constructed and managed
according to rational assumptions and therefore understandable only
when rational analyses are applied to them. From this efficiency
perspective, schools are often seen as archaic, not yet rational-
ized around proper output measures, evaluation systems and control
structures. Meyer and Rowan point out the interesting paradox
here. Education is viewed by the "reform" (proefficiency) group
as fragile, inept, disorganized and on the edge of chaos and
dissolution, despite the fact that the education sector has "grown
rapidly for many decades, ... obtains huge economic resources in a
stable way year after year, ... retains public consent as a sort
of semimonopoly in society, ... is constantly shown by surveys to
receive very high levels of support and confidence from its
constituency, and ... is known to have very high levels of job
satisfaction among its participants." (pp. 11-12).

Perhaps schools are managed poorly from a "rational," "reform" perspective, but they may be run very well for the purposes they serve. The more accurate description of education in general and school districts in particular is that of "loosely coupled" organizations.

[The imagery of loose coupling is] to convey the image that coupled events are responsive, but that each event also preserves its own identity and some evidence of its physical or logical separateness. Thus, in the case of an educational organization, it may be the case that the counselor's office is loosely coupled to the principal's office. The image is that the principal and the counselor are somehow attached, but that each retains some identity and separateness and that their attachment may be circumscribed, infrequent, weak in its mutual effects, unimportant, and/or slow to respond. Each of those connotations would be conveyed if the qualifier loosely were attached to the word coupled. Loose coupling also carries connotations of impermanence, dissolvability, and tacitness all of which are potentially crucial properties of the "glue" that holds organizations together. (p. 3, Weick)

There are definite advantages to loose coupling. It allows some portions of an organization to persist. It may provide a sensitive sensing mechanism. It can more readily allow for localized adaptation. The school system can potentially retain a greater number of mutations and novel solutions than would be the case with a tightly coupled system. If there is a breakdown on one portion of a loosely coupled system, then this breakdown is sealed off and does not affect other portions of the organization. There may also be more room available for self-determination by the actors. Loosely coupled systems should be relatively inexpensive to run because it takes time and money to coordinate people.
As much of what happens and should happen inside educational organizations seems to be defined and validated outside the organization. Schools are in the business of building and maintaining categories, a business that requires coordination only on a few specific issues, for instance, assignment of teachers. This reduction in the necessity for coordination results in fewer conflicts, fewer inconsistencies among activities, fewer discrepancies between categories and activity. Thus, loosely coupled systems, see to hold the costs of coordination to a minimum. Despite this being an inexpensive system, loose coupling is also a nonrational system of fund allocation and therefore, unspecifiable, unmodifiable, and incapable of being used as means of change. (p. 28, Weick, emphasis added)

Meyer and Rowan describe the implications of the concept of loose coupling in schools.

American educational organizations are in business to maintain a "schooling rule" or theory of education embedded in society. This rule specified a series of categories—teachers, pupils, topics, and schools, which define education. Elaborate controls make sure the appropriate categories exist. The categories themselves, and the system of inspection and control are formulated to avoid inspecting the actual activities of the schools. (p. 24)

From the viewpoint of an administrator, maintaining the credibility of his school and the validity of its categories is crucial. The confidence of the state bureaucracy, the federal government, the community, and profession, the pupils and their families, and the teachers themselves must be maintained. All of these people must help sustain the social reality that the school is a valid one—there is no independent test, and if these groups decide it is not a valid school, everything comes apart. (p. 25, Meyer and Rowan, emphasis added)

There are several reasons why a "rational, sensible, American administrator" would avoid closely inspecting the internal processes of the school. For one, the administrator needs teachers and pupils to maintain their formal roles in good faith, and to display reasonable public satisfaction. Second, to many external bodies (state, accrediting agencies, the community, and
the participants themselves, costs of goods and services describes the quality and meaning of school. Thus it makes little sense to see educational organizations as producing for an economic market, because from this economizing perspective these critical features of the school might be treated as costly waste, as liabilities rather than assets. Expenditures per student or the number of books in the library are among common indices of educational quality, even though maximizing these indices may require a studied inattention to an economizing logic. Third, schools, like other organizations, attempt to buffer their core technologies from unpredictability. Introducing organizational unpredictability by measuring what pupils learn, what teachers teach, etc., introduces an unnecessary uncertainty, and increases coordinative costs. Fourth, to cope with the myriad of sources of external pressure, schools decouple their internal organization. For example, schools of ten have a large number of specialists to deal with "special" categories, and this specialized work is organized separately and buffered from the usual classroom work.

New categories need not be integrated into the structure. They merely need to be segmentally added to the organization. Further, they need not even imply a substantial reorganization of activity, as the activity implied by a category remains uninspected. The decoupling of the internal structure of education is therefore a successful strategy for maintaining support in a pluralistic environment. (p. 28) School districts behave rationally, given their environments.
ARE THE MAJOR CAUSES OF INEFFICIENCIES TO BE FOUND IN SCHOOL DISTRICTS?

If the descriptions of Mintzberg, Meyer and Rowan, and others of similar orientation, are even partially correct, efficiency advocates (including myself) must rethink our assumptions of the school district as a (1) factory model, (2) operating in a manner requiring rationalization. Specifically, we may be forced to conclude that, given the nature of the current intertwined network of organizations called public education, school district administrators are acting quite rationally and school districts are structured and operate in a logical manner. This should not necessarily trouble the efficiency-oriented educator. Efficiency is essentially a reform orientation, and descriptions about how schools currently operate may do little more than underscore the need for more rationalized, efficiency motivated work. The implication of this is however, is that the causes of inefficiency may not emanate from the school district, although the symptoms may be found there. If this is true, then we can begin to understand why recent efficiency-oriented reforms (PPBS, cost-effectiveness analysis, etc.) aimed directly at school districts have had so little substantive effect. It also suggests that we should begin to look outside of school districts for factors contributing to inefficiency in school districts. Two of the most likely places to look are the state-level and the federal-level education policy making bodies.
Efficiency doctoring implies, at a minimum, taking steps which will improve the productivity of schools. The purpose of analysis is improved decisions which lead to greater productivity. Let me describe six very different district-level decision situations that I have come across in the last two months. In one sense they reflect serious inefficiencies, but viewed from the district-decision making perspective, the decisions were rational. (These illustrations are not drawn from a single state.)

Discharging Personnel Without Reference to Merit Criteria

Administrators in one district have been told by their state education agency that, according to state law, teachers may only be laid off (1) on the basis of seniority (2) within three broad categories of teaching specialization. In effect this forces some teachers with seniority to teach outside their areas of specialization. Equally important, some teachers who are highly regarded by their administrators must be let go while others must be kept.

If district administrators are not given authority (responsibility) for personnel decisions beyond firing for gross incompetence, why should they be expected to conduct analyses of teaching effectiveness? From a "business like perspective" the behavior is inefficient but, from the district perspective, it is rational and efficient.
Promotion by Non-Merit Criteria

In order to be eligible for a principalship in one large system, applicants must have taught three years, taken appropriate coursework, and passed a rigorous pencil and paper exam. Those passing the test are put on a list from which district-level supervisors are selected. The intent of the process was to provide a pool of applicants from which to select, a pool which would be "refilled" as the need arose. Entry into the pool meant only that the applicant would be considered by district-level decision-makers. However, due to a recent state-level ruling this district is required to place all applicants in the pool in a principalship and this must be done before the pool can be refilled. Individuals who have taught three years, taken coursework and passed the test must be placed in principalships. This ruling effectively removes much of the discretion of district-level decision-makers to promote the best qualified individuals. Principals are essentially self-selected.

Some principals in the system may be of low quality (not low enough to be discharged), and their promotion to principal may be considered irrational. However, again from the district perspective there was little choice in the matter.

Personal Decision Not to Seek a Superintendency Position Based on Non-Merit Criteria

I have recently had the privilege of working with a large suburban school district which is in its second year of implementation of zero-base budgeting. The assistant superintendent for
business affairs has been the prime mover in this, linking internal staff with external human resources and managing the conversion of ZBB in addition to his regular duties. The success of that implementation has been described in several national journals and workshops based on that effort have been well attended by other business officials in the state. That individual has been the chief business officer in this district for over five years, and holds an M.B.A. from a nearby university (60 units of graduate work) where he supervises administrative interns and gives occasional guest lectures. This individual is one of the more highly regarded business administrators in his part of the state. Despite all this, his application for the district-level administrative certificate was turned down because the state would not accept his coursework in business administration as being appropriate for educational administrators. Because of this, the individual has much less of a chance of securing a district superintendency and has decided not to try for one.

In one sense, this person is making an irrational decision. His talents have been recognized and sought after. However, given the difficulty a non-certificated person faces in seeking a superintendency in that state, his decision was not so irrational.

Evaluating Programs Using Non-Productivity Criteria

Three weeks ago a large city system lost $1.5 million in federal aid for its parent-child reading centers. The program aimed at 3-7 year olds heavily involved the parent in reading
instruction. The results have been spectacular (inner city children repeatedly scoring above national norms). The city system lost the money because of the success of the program; it no longer served young children with severe reading difficulties. The system cannot pick up the $1.5 million tab, the program is to be cancelled next year, and the children will lose what they gained.

District administrators clearly made a mistake (1). If the program had not been so effective, the district would still be receiving money. Funding mechanisms that reward inefficiency (or that are in no way related to performance) simply provide no incentive for district level administrators to act in rational, output maximizing ways.

Allocating Instructional Time To Non-Instructional Activities

I have run across continual examples in school districts of classroom instruction being interrupted so that teachers could fill out forms for external agencies or so that various instruments could be administered directly to students by external agencies. Often these have no direct relationship to instruction. In one district recently teachers had to fill out a separate information sheet for each bilingual student in his/her class. Each form required 15 minutes of time to complete, and had no relation whatsoever to the instruction going on in the classroom. Teachers with large numbers of bilingual students required substitute teachers to take the class for several days while they filled out the forms.
This example is repeated daily in some of the larger urban systems. While it is clearly an inefficient use of the most critical time in schools, administrators allow it to take place because they are forced to.

Retaining More Costly Teachers Than Are Desired

Economists tend to view the unit costs of inputs as uncontrollable by district-level decision-makers. Although the unit cost cannot be changed, district decision-makers are expected to combine them in the most efficient manner. Many districts have much more experience on their teaching staff than they would desire. As a result they face high unit costs for teachers. Not only are teachers protected by seniority rights (described earlier), but state-level retirement systems often have the effect of locking an experienced teacher into a single district or into a single state. Districts may appear to act inefficiently by retaining expensive staff, but they do not have the means whereby they can change the incentive structure of the retirement system and encourage overly experienced teachers to retire or relocate.

CONCLUSIONS

Behind each of the six "inefficiencies" lies a set of researchable policy questions. However, "efficient" is in the eyes of the beholder. If we viewed school districts as largely independent educational organizations, we would have to conclude that they are run quite inefficiently. School districts just are
not rationally, scientifically managed, run in a business like manner, results-oriented, etc. However, if we see school districts as (1) having to respond quickly to an ever-changing melange of requirements and programs (2) with virtually no real authority to make basic personnel decisions, and (3) with no incentives for acting efficiently, then current school district behavior takes on a new, highly rational mantle. The burden of the label "inefficient" must be shared with agencies which legislate what districts are to do.

The inefficiencies of school districts may well be "institutionalized from above." Requiring districts to prepare three-year plans, program budgets, project evaluations, and cost-benefit analyses, will continue to yield a lot of paper and little change unless and until district-level administrators have significant discretionary authority. Only then will such analyses have utility for him/her. I would open up the discussion then by stating (1) that the greatest potential for improvement in public education today may be found at the state level; and (2) that state level policy makers are in a position to bring about improvement under the historically evolving reform mantle of efficiency; but that (3) efficiency begins at home.