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ABSTRACT

Although it is unreasonable to expect the schools to build a new social order, nonetheless the humanizing of education in the pluralistic American tradition is a legitimate and worthy goal. The people who run our schools must lead the way. Too many educational leaders, however, have been unwilling or unable to make difficult decisions that seemed to threaten their job security or advancement. Such self-protection can no longer be justified. The construction of a "principal profile" from a Michigan study and an examination of present national training methods and costs lead to a proposal for reform of the existing system in a training and development capacity. Such a program should deal with (1) questions about leadership and the school system; (2) methods of implementing reforms; (3) organizational structure and operations; and (4) costs. (Author)

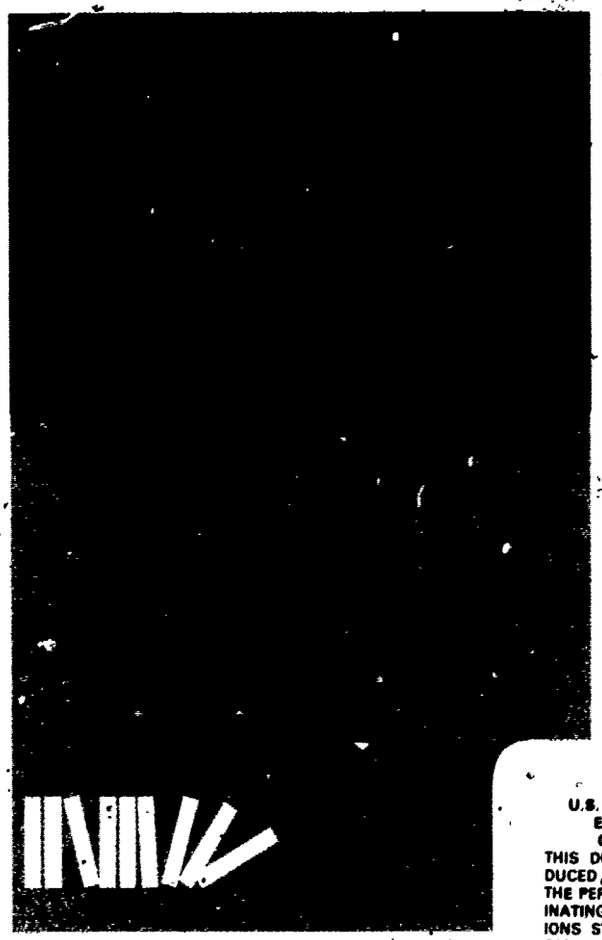
Highlights of the Study

- At a time when national issues are overwhelming the schools, "localism" still dominates the system

- Public school principals, gatekeepers of educational change, have been overlooked as a vehicle for school reform

- In 1970 only 30 % of those persons receiving doctorates in educational administration or supervision actually took leadership positions in the public schools

- An oversupply of credentialed candidates stand in line for leadership positions in the nation's public schools



Donald P. Mitchell, Director
Anne Hawley, Assistant

Introduction

Public education, at all levels, is currently under scrutiny by a wide variety of people and groups both within and outside education. Taxpayers and public officials are raising serious questions about the quality and usefulness of the public schools. And the consumers — students and parents — also are questioning the system for its relevance, its abilities to respond to a myriad of educational and educationally related issues, and at the same time, for its capacity to develop the individual.

Some say these examinations reflect a growing lack of faith on the part of Americans in the value of public education. I do not believe it is that at all. Rather, it is a questioning of the effectiveness, the efficiency, and, increasingly, the humaneness of the processes and systems of public schooling.

At the same time, over the last decade there has been much activity to develop remedies to improve the condition of public education. The years have brought forth massive federal efforts, substantial foundation grants, as well as increased efforts at state and local levels. Much of the effort has been keyed towards the instruments of instruction, the curriculum, and to the training and development of teachers. This is all to the good, and I would hope it continues.

One area of needed reform that has had relatively less attention and effort is that of training leadership for the schools, especially leadership at the level of the principalship and related positions.

We, at the Ford Foundation, were therefore pleased when Dr. Donald P. Mitchell and his colleagues at the Academy for Educational Development approached us about plans to investigate educational leadership, especially that of training school principals. We agreed with them that here was a significant area of training for educational leadership that had not been sufficiently investigated, particularly with respect to the matters of supply and demand, costs, as well as to the nature of the training itself. We also agreed with Dr. Mitchell that a study of this area needed to have the cooperation of a variety of institutions and agencies if the necessary data were to be compiled and analyzed. Fortunately, the necessary cooperation was found; we join the Academy in thanking all those who participated.

The results of Dr. Mitchell's work over the course of a year follow this introduction. The work reflects the sincerity and objectivity of the author, Donald Mitchell, who has long labored on the frontiers of training and public policy reform for education. His report offers much food for thought. For that we are grateful. More importantly, we can be grateful for the issues and questions — hard and fundamental — which this study raises, especially those that relate the upgrading and improvement of public schools and their leadership to present leadership training approaches.

Whether or not one agrees with the suggestions offered by Donald Mitchell regarding a new and direct intervention (with its "national perspective") into the lives of those presently holding leadership positions is not the issue. Readers are encouraged to draw their own conclusions about his proposals. But, regardless of one's views about them, there is no question that Donald Mitchell has provided educators and policy-makers facts and figures that cannot be denied and with a series of analyses that show simultaneously the dimension of both a large and significant problem and an opportunity as well. I urge that this report be seriously read and studied.

EDWARD J. MEADE, JR.
The Ford Foundation

Table of Contents

We All Know There is a Great Deal Wrong

"The world alters as we walk on it," Robert Oppenheimer said. Everything nailed down has come loose. It is impossible to exaggerate the extent and rate of change involved in modernization. We are all aware of it, because in this age of mass communications that are themselves the result and further cause of change, the message flashes around the globe in sound, pictures, and print.

Yet even as societies, for the first time in human history, find that they have or can one day expect to have the machinery to place within reach of all people enough food, shelter, and clothing, and free public education as well, the malaise that modern technology has brought with it seems to threaten the working of that machinery in the United States. Here, in the country where a contagious dream of a good life for all citizens shaped a definitive revolution, we are finding that the benefits of that technology which promises even now to make the dream possible are nearly overwhelmed by the problems attendant on technological growth.

The sheer power of our productivity and military strength, and their capacity for destruction of the environment and the human will, has overshadowed our sense of purpose as a people. Fearful of becoming the servant of a conscienceless technology, we seek a new sense of proportion among the intellectual, physical, emotional, social, aesthetic, and spiritual aspects of life. Our need is reflected in the search for a sense of community and leadership at all levels of national life. And nowhere is the need greater, the search more important, than in the United States' faltering public school system. Here, where the future is shaped, the nation

is in deep trouble. We all know it. We know that there is a great deal wrong in the schools.

What is the source, the form, and the size of the trouble in the American public school system?

How do we restore the sense of community we once had in our classrooms?

Where do we find and how do we strengthen the leaders we need in our schools?

As authors of this report we have spent a year in close examination of the American public school system and its leadership and are freshly aware that these questions have no easy answers. We have reached a conclusion and devised a proposal addressed to the third question. That is the substance of this report. But before it can be presented, it is necessary, in our opinion, to review the situation, considering the first two questions in relation to what we see as the central consideration of the search for leadership.

Let us again look at what is wrong.

Source and Extent of the School Problem

The larger troubles of American society are reflected in our schools. They have, in fact, overwhelmed the schools. There has been a tendency to blame the schools for all of our ills. For example, introducing a series of articles on education in November, 1971, the *Chicago Daily News* said:

> In Chicago—as in other big cities—jobless rolls grow, crime increases, and the cost of welfare soars. And at the heart of this trouble is the failure of our schools. We have spent billions in taxes trying to improve the quality of education, yet our schools slip farther behind and turn out thousands of youngsters who can barely read.

But the problems of our society and our schools were not created by the schools. What has actually happened is that we have placed new and heavier burdens on our system of public education.

The mission of American schools has changed. In theory, we have always believed in developing the child to his fullest ability. But social goals for the schools have broadened immeasurably.

More and more, public schools have been called on to play the role of substitute parents (a role formerly reserved in large part for private schools). Something had to be done with the kids, the dropouts, everybody. The schools were supposed to make up for the deficiencies of parents and society generally. Educators have been called on to solve all the problems nobody else quite knows what to do about. This change has come about naturally because public schools are accountable to the society through boards of education and can therefore be made to play any role assigned to them by the society. Teachers, acting as custodians, are thus held responsible for the behavior of children, their wards—and for much, much more than their behavior. Whereas in earlier times much if not most training (technical and professional) was received on the job, economic survival in a highly developed industrialized society depends heavily on a certain minimum of formal schooling.

Until the early 1960's, American public schools acted as sorting out agencies, in which middle-class children, predominantly white, and already conditioned by the goals of home and society to become economically self-sufficient through the performance of certain tasks, were helped to identify and prepare for those tasks to which they were suited. "Outstanding" youngsters were selected for higher education and others were encouraged to leave school to enter the work force. In the last half of the 1960's, the schools began to recognize, belatedly, the need to encourage similar goals of economic self-sufficiency among the children of disadvantaged, largely nonwhite minorities and to try to provide special help for them.

But education of the disadvantaged presents critical difficulties. The 1966 study conducted by James S. Coleman of Johns Hopkins University for the U. S. Office of Education, *Equality of Educational Opportunity*,[1] came to some disturbing conclusions, with which educators and public officials will be wrestling for a long time. The Coleman Report indicated that minority children entered the first grade at a discernibly lower level of scholastic readiness than their white, middle-class peers and that they *receded* each year thereafter so that by the eighth grade they were relatively further behind than they had been in the first. The schools have been called upon to remedy this situation.

Increasingly, upward social mobility takes the form of giving children more education than their parents. Today, the public schools are enrolling more youngsters than ever before in both absolute and relative terms. (There are now as many students in U. S. colleges as there were in the schools twenty years ago.) The United States is trying to educate more people than any other nation with the exception of possibly the Soviet Union. In 1970, some 45.5 million young people[2] attended public schools, and regardless of their mood, their color, and other distinguishing characteristics, the system had to provide for their housing, in most instances a part of their feeding, and their education. By any standard, this is a big operation. Forty-five and a half million people is more than the total population of three-fourths of the nations on earth. It is almost twenty times the size

of the armed forces of the United States.

As the social legislation of the 1960's generated expectations for broader educational opportunities, it became fashionable to damn the schools without asking whether society was requiring them to perform new functions. Yet, in addition to overcoming the severe, specifically educational handicaps of minority children, even as poverty, unemployment, restrictive hiring practices, bad housing, and poor medical care reinforced their poor school performance, the schools were also being charged with changing racial attitudes and correcting a wide range of social deficiencies. Education was confused with social engineering.

John I. Goodlad, Dean of the UCLA Graduate School of Education, attacked this tendency to demand too much of the schools in an address, "Who Should Be In Charge: What Decisions, by Whom" given at Linton High School in Schenectady, New York on April 27, 1970.[3] He said:

> . . . If you want to really eliminate unemployment, you create jobs. If you want to really eliminate the slums, you clear up the slums, but you don't hold education responsible for getting it done. . . . Because education is a long-term answer to mankind's problems and not a short-term one, we must very carefully, at all levels of educational decision making, differentiate between what education can do in the long run and what human engineering can do in the short run.

But what of the acknowledged responsibility of the schools to help children learn? In this basic area, they are too often clearly failing. Too many children are being turned off from the desire to learn. They feel oppressed by their classroom experiences. In increasing numbers, parents and children alike are asking that the schools stop confusing grade achievement with education. It now appears beyond argument that age-grouping, teacher-centered instruction, and compulsion are not getting the job done. All this has been pointed out by John Holt, George Dennison, Joseph Featherstone, and many others.

Charles Silberman in his Carnegie Foundation-supported study, *Crisis in the Classroom*, wrote:

> It is not possible to spend any prolonged period visiting public school classrooms without being appalled by the mutilation visible everywhere—mutilation of spontaneity, of joy in learning, in pleasure of creating, of sense of self. The public schools—those 'killers of the dream,' to appropriate a phrase of Lillian Smith's—are the kind of institution one cannot really dislike until one gets to know them well. Because adults take the school so much for granted, they fail to appreciate what grim, joyless places most American schools are, how oppresive and petty are the rules by which they are governed, how intellectually sterile and esthetically barren the atmosphere, what an appalling lack of civility obtains on the part of teachers and principals, what contempt they unconsciously display for children as children.[4]

Even casual journalistic commentators have uniformly found much to criticize in the American classroom. The English writer, Anthony Burgess, in a November 7, 1971, article for the *New York Times Magazine* entitled "Is America Falling Apart?" told of his own experience as a parent living in the United States:

> It would be supererogatory for me to list those areas in which thoughtful Americans feel that collapse is coming. It is enough for me to concentrate on what, during my New Jersey stay, impinged on my own life. Education, for instance, since I have a six-year-old son to be brought up. America has always despised its teachers, and, as a consequence, it has been granted the teachers it deserves. The quality of first-grade education that my son received, in a New Jersey town noted for the excellence of its public schools, could not, I suppose, be faulted on the level of dogged conscientiousness. The principal had read all the right pedagogic books, and was ready to quote these in the footnotes to his circular exhortation to parents. The teachers worked rigidly from the approved ag-

idly programed primers, ensuring that school textbook publication remains the big business it is. But there seemed to be no spark, no daring, no madness, no readiness to engage the individual child's mind as anything other than raw material for statistical reductions.[5]

Where does the fault for this failure lie? In the April, 1970, issue of *American Education*, Keith Goldhammer and Gerald L. Becker, writing on the basis of a University of Oregon study, said:

> There appears to be considerable public apathy toward elementary education. It is hard to believe that a society that really treasures the elementary schools as educational institutions of vital concern in helping young people grow to maturity and live effective lives would neglect its schools as much as they obviously have been. Sometimes we felt as we visited schools across the country that the people really didn't want elementary schools to be educational institutions; they seemed happy to have them serve as glorified baby-sitting operations.[6]

After visiting some 260 classrooms in 100 elementary schools in thirteen states, John Goodlad concluded that the schools are "anything but the 'palaces' of an affluent society." On the contrary, they look "more like the artifacts of a society that did not really care about its schools, a society that expressed its disregard by creating schools less suited to human habitation than its prisons."[7]

Still, it is not all a matter of public apathy. Expenditures for education have increased rapidly. In 1949, public school spending comprised 2.3 percent of the gross national product. In 1967, it was 4 percent.[8] But schools today, both public and nonpublic, face a financial crisis bordering on chaos. There is an acute need for reform in school financing, especially in the cities, increasingly beset by demands for public services of all kinds, where some 65 percent of the total budgets go to non-educational purposes, leaving 35 percent for the schools, according to the U. S. Office of Education.[9] In the suburbs, the situation is precisely the reverse. The costs of education in the inner cities are appreciably higher than in suburban and rural areas. Because of the continuing drift of rural and other poor people to metropolitan areas in search of jobs, city schools are called on to deal with a high proportion of youngsters who bring with them a burden of disadvantages that require special effort and more costly educational approaches.

Not only are there extra costs connected with providing special kinds of schooling for disadvantaged children or those for whom English is a second language, but there are the costs of providing for the physically handicapped, especially the blind and the deaf. The recent study "Future Directions for School Financing—A Response to Demands for Fiscal Equity in American Education" by the National Educational Finance Project, 1971, funded by U. S. Department of Health, Education and Welfare, shows that given the present ways of education, it costs 3.25 times more to educate a physically handicapped child as to educate a regular elementary student.[10] The need for reform of a system that spends inversely to need is obvious.

There are extremes in the per pupil expenditures from district to district that tend to be inversely related to educational need. Within the states, one finds per pupil expenditures in the richer districts anywhere from two to five times greater than in the poorer districts.[11] These differences, which create serious inequities in educational opportunity, are a natural outcome of a system whereby the states create school districts of widely varying taxable property wealth per pupil and permit these variations to affect the level of spending in each district.

In 1971, this system was the focus of hearings held by the Senate Select Com-

mittee on Equal Educational Opportunity. Professor John Coone, of the University of California Law School, told the Committee:

> The degree to which district spending per pupil is affected differs from State to State. The magnitude of difference within the typical northern industrial state with its clusters of extreme wealth and poverty can be staggering. In California the range of spending for elementary schools extends from about $450 to several thousands of dollars per child. The rates, of course, are related inversely. While a district like Baldwin Park taxes itself at 5.26 percent per hundred dollars of assessed valuation, nearby Beverly Hills carries a rate of only 2.38 percent. Meanwhile Beverly Hills spends per pupil at well over twice the level of the poorer districts.[12]

On August 30, 1971, the system was held unconstitutional by the California Supreme Court in its decision in the case of *Serrano vs. Priest*.

A U. S. Office of Education study made public on January 16, 1972, revealed that a majority of the nation's big-city school systems receive a proportionately smaller share of state education funds than their suburban or rural counterparts. The study also found that while 65 percent of all big-city school systems were able to raise more, on a per-pupil basis, than the statewide average from local sources, the low level of state support usually resulted in total per-pupil revenues below the statewide average. St. Louis, for example, received $182 per pupil from the state, or $55 less than the state average, while the local school system provided $10 more per pupil than the state average. Total revenue amounted to $725 per pupil, which was $42 less than the state average, according to the study conducted by OE's National Center for Educational Statistics.[13]

The financial ability and property tax efforts of 25 big-city systems for which data were available were also analyzed by the U. S. Office of Education. Using an adjusted assessed property valuation as the indicator of financial ability, USOE found that 64 percent of the big-city systems had assessed valuations higher than the statewide average. In addition, 36 percent supported a tax rate that was higher than the state wide average, 24 percent supported a below-average tax rate, and 40 percent supported a rate approximately equal to the average.

The Federal influence on local school finance was found by the USOE investigators to be mixed: funds distributed under provisions of the Elementary and Secondary Education Act apparently favored the 87 big-city school systems, with 63 percent receiving more than the statewide average. However, the effect of other federal programs diluted the impact of ESEA revenues, so that 51 percent of big-city systems received less than the statewide average for all federal funds.[14]

U. S. Commissioner of Education Sidney P. Marland, Jr., commenting on the study, said that:

> In view of the evident financial plight of many urban schools, the inequities of current state school aid practices which this study reveal make it imperative for each state to reassess its school finance procedures to determine how fairly its education dollars are being distributed. Although we in the Federal Government are in the process of re-examining Federal school aid practices, the major share of local school revenues will continue to come from State and local resources.[15]

The Select Committee on Equal Educational Opportunity of the U. S. Senate brought out some of the disparities existing among the states as well as within them. Three or four decades ago the wealthiest states invested more than six times as much money in education as the poorest. The ratio has improved somewhat, the U. S. Commissioner of Education told the National Association of State Boards of Education at Atlanta, Georgia, on October 12, 1971.

"It is now a little less than three to one," he said, "and can be expected to diminish as the years go on." But notwithstanding Commissioner Marland's professional optimism, there are still inequities. James Guthrie, from the University of California at Berkeley, in testimony before the Senate Committee on Equal Educational Opportunity described them this way:

> One of our principal educational inequities occurs as a consequence of a child having the misfortune to reside in a relatively poor state. The disparity in resources spent on children in low wealth states, compared to those in high wealth states, is well known. . . . such discrepancies are not simply a consequence of neglect or lack of concern on the part of the inhabitants of low expenditure states. On the contrary, in 1969, Mississippi residents taxed themselves at a rate equal to 4.42 percent of their personal income. Despite this level of effort they were able to generate an average of only $462 per pupil. By contrast New York state residents made slightly less effort (4.26 percent) and raised $1,036 per pupil in the process.[16]

Suits challenging the system of public school financing are pending in some half a dozen states and are expected to be filed in at least 20 more following the decision in *Serrano vs. Priest*. The results, if they follow the California pattern, could be dramatic.

The Search for Alternatives

Would it be better if the Federal Government took over the whole public school operation? Few among us would go along with that idea. Conversely, it is often suggested that educational direction of each neighborhood be turned over to parents. But this would deprive the disadvantaged of the help and interest of more affluent neighborhoods, and, more basically, there are few communities sufficiently stable to maintain the continuity of direction necessary for successful schools. In our society, with its constant shifting and resettlement of people, the true neighborhood school is something of a myth.

Rampant and widespread criticism has prompted many suggestions for reform and has resulted in programs ranging from Title I of the Elementary and Secondary Education Act intended to provide special assistance to disadvantaged children to the contracting out of public school programs to private business firms.

Basing their proposals on the conviction that unwieldly organizational arrangements have stifled creativity, imagination, and drive, some educators have suggested the need for "self-destruct- organizations," autonomous modules of talent that would be mobilized for specific jobs and then dismantled. Decision-making by computer has attracted some, while others have suggested the application of group process techniques as a means to help create a more open sensitive working environment.

Alternatives to formal schooling such as the Job Corps and street academies have sprung up all around us. It has even been suggested that if we are unwilling to face the meaning of our humanity, perhaps the schools should collapse entirely to be replaced by other learning techniques that will recognize the needs of people. "Universal education through schooling is not feasible," declares Ivan Illich.[17] Illich, who has been proclaimed as the central figure in the entire school-reform debate within the Western World uses education as a vehicle for social criticism. But he aims with accuracy at unquestioned weaknesses in our system. In his book *Deschooling Society*, he wrote:

> In the United States per capita costs of schooling have risen almost as fast as the cost of medical treatment. . . . But increased treatment by both doctors and teachers has shown steadily declining results. . . . The increase in educational ex-

penditures has produced even stranger results; otherwise President Nixon could not have been moved this spring to promise that every child shall soon have the right to read before leaving school. . . . The United States, which spent nearly eighty billion dollars in 1969 for 'defense' including its deployment in Vietnam, is obviously too poor to provide equal schooling.[18]

The authors of this report believe that current criticisms of the schools should properly lead toward school reform, not rejection of schools and schooling as such. The current reform movement began partly with the concern about national defense,* crime, and social disorder and intertwined with the thrust for civil rights. Various strains and contradictions—between integration and decentralization, between radical changes in teaching techniques and community involvement—have splintered the movement. But the basic fact, as we see it, is that children will continue to spend their days in school.

Today there is a tide, a small but hopeful movement toward a rejuvenation of education centered around the child himself and his needs. One indication of change is the adoption by some schools of the "open" classroom teaching method. Open classroom methods had their start in nursery schools in England and America—with roots in Montaigne, Rousseau, Pestalozzi, Froebel, Montessori, Dewey and direct guidance from developmental psychologists Jean Piaget, Susan and Nathan Isaacs, and Jerome Bruner. The idea that a child's natural drive to learn flourishes best in an informal, subtly controlled classroom rich in things to do is being put to the test in a few schools in the United States now. In some, these new methods have been carefully developed. In others, they have been put together too hastily by school administrators looking for shortcuts to quality education or by parents running "free" schools to rescue their children from the deadening effects of public classrooms.

Even in education, the pace of change has accelerated somewhat in recent years, but there is always a lag between the time new ideas are aired and adopted widely by schools or other institutions. Studies have shown that our educational practices change more slowly than those of our farms, our doctors, our industries. There is no danger that the public school systems will move too fast. School officials usually handle new ideas with extreme caution.

The System and the People in Charge

Since the end of World War II, great attention has been focused on the public school system and the people involved. Critics and supporters alike have put forth proposals and projects to the local districts, states, and the U. S. Congress. Professional associations have called for such measures as expanded libraries, more counselors, better procedures. There have been widespread efforts to improve science curriculum materials, train science teachers through institutes, ungrade the schools, and introduce new and varied staffing patterns. But little if any analysis has been made of the system itself, how it works, and how it could be changed for the better. Little attention has been paid to the actual people in charge of the operation.*

During the past year, we have taken a look at the generally overlooked lead-

* National Defense Education Act (NDEA) of 1958 placed emphasis on science and mathematics to buttress U. S. defense in race with Russia.

* For a discussion of this see Daniel E. Griffiths, "Administrative Theory." and Russell Gregg, "Preparation of Administrators." *Encyclopedia of Educational Research*, Fourth Edition, London: MacMillan Co., 1969, pp. 17-23 and pp. 993-1002.

ers in ce public education and examir al' vailable data on them and the system in which they function. Our idea was to find out what was actually happening in the American school system and then, on the basis of the facts, to make suggestions about ways to better equip the leaders to meet the challenges they face.

The vast, locally-based system with its highly diversified functions operated during the 1970 school year at a cost of about 42.4 billion dollars to provide education for some 45.5 million pupils. (Of the operating costs, 51.8 percent is financed by the local districts, 40.9 percent by the states and 7.2 percent by the federal government.)[19] The differences within it—between urban and rural schools, the modern school building and the one-room schoolhouse, the integrated, the suburban, and the ghetto school—are profound. The complexity of the operation is suggested by the fact that it encompasses 17,200 school districts spread across a continental span of some 3,000 miles embracing large urban centers, mountain ranges, prairies, and deserts, and serving a people of diverse colors, religions, and cultural backgrounds. The schools are as diversified as the land itself.

In some of the least populated states, there are more school districts than there are in certain densely populated states. The entire state of Hawaii is a single school district. New York City, which is a single district, has as many children attending schools as the 759 districts in the rest of the state.[20] About half of the secondary schools are located in areas described as small towns with populations of 5,000 or less, or in rural areas. Only 11 percent of the high schools are located in cities with more than 250,000 inhabitants. More than 30 percent of the total enrollment is concentrated in 192 school systems with enrollments of 25,000 or more, according to National Education Association figures for 1970, while at the opposite extreme, about 32 percent of all operating systems had enrollments of fewer than 300 pupils and these 5,435 systems accounted for only 1.5 percent of the total.[21]

Surprisingly, the larger number of American high schools are small. This is indicated by the fact that something over one-third of the principals served schools with fewer than 250 students. Less than 20 percent of the secondary schools have as many as 1,000 students.[22]

Despite its great diversity, the enormous complex that is the American school system has one thing in common. That is the method of management. Operating through the 17,200 school districts supervised by the states and aided by some 2,000 institutions of higher education, it has at the local district level, a relatively small number of people who administer it.

The titular head of each system is the school superintendent. He functions with the help of various assistants in his office. At the school-house door stands the principal. He, too, may have assistants. Floating somewhere in between are various supervisors, coordinators, directors, and other administrative and technical personnel.

Professional personnel employed by the system for the school year 1970-71 totaled 2,302,212, with teachers comprising 88.4 percent or 2,034,518 of the total. An estimated 65,306 professional employees manned the central offices of the public schools. Of these, 21,857 were superintendents, associate and assistant superintendents, or their assistants. Only 4 percent of the total professional personnel were principals or assistant principals. These totaled 93,558, of which 70,259 were supervising principals. The remaining personnel included some 30,750 librarians, about 39,350 counselors, plus spe-

cialized employees such as social workers, psychologists, and nurses.[23]

Many reformers have placed the blame for the deadening effects of the education bureaucracy on the teachers. But teachers do not run the schools. The principals are both the *de facto* and *de jure* managers of the entire enterprise. The system of public education is such a large operation that it is extremely difficult to fasten on a point of entry to attain improvement. But standing as he does at the school-house door, the principal is easily identifiable as the key determiner of climate in the school.

Large sums of money have been spent to revise the curriculum, change the organization, construct new kinds of school housing, encourage community control—to name a few innovations. In each instance in our opinion, the key figure—the school principal—has been overlooked. Kurt Lewin had a name for these individuals who link interpersonal communications networks to something "outside"; he called them gatekeepers.[24] It is the principal who can make something work or frustrate it.

A recent study of the New York City schools by an independent nonschool agency came to this conclusion;

> Good education, like any other service, needs adequate funding. The appropriate question is not how much expenditures will be increased, but to which inputs monies will be directed. In a sample group of 14 Black/Puerto Rican schools, each principal was interviewed to see if his attitudes about the roles of administrative and teaching staffs correlated in any way with the improvements in reading. A "School Quality Index" was derived, and seems to explain 74 percent of variation in reading score improvement in the sample.
>
> Significant improvements in reading skills were associated with a principal's belief that he had a competent professional staff in the fourth and fifth grades, respected his teachers' aides working in the classroom and used them extensively, had meaningful parent and community involvement in the school and practices or supported innovative administrative or teaching techniques. Relative backsliding in achievement was associated with opposite attitudes.
>
> Even if the high coefficient of correlation is discounted somewhat because of the subjectivity necessarily involved in translating attitudes (qualitative) into a numerical index (quantitative), the resulting numbers appear to be, at the least, provocative.
>
> Two elements appear to be at work in those schools that yielded the high correlations. First of all, a school which manages to involve the total environment of the child into the education process has more resources, both tangible and intangible, available for education than a school that does not. Secondly, for a combination of these factors to be operating, the staff, the community and the children must have respect for themselves and the other participants in the school.[25]

The need for visionary and creative leaders becomes greater as societies grow and become more complex. Patterns and structures must be changed. So must the people at the helm be ready and able to change. The enormous complex of American public schools can be no better than the people who run it. More than just competent management is necessary to bring about thoroughgoing reform in the long-term public interest. When all is said and done, nothing will change unless educational leadership begins to set the wheels of change in motion.

The schools cannot build a new social order. They cannot solve all of America's problems. But the humanizing of education in the pluralistic American tradition is a legitimate and worthy goal. The revolution of rising expectations is a fact of life, and the schools must cope with the discontent and rebellion that accompany social and economic change. For this task, the rejuvenation of public school education is urgently needed. And in this task, the people who run our schools must lead the way.

II

Principals as Agents of Change

Those who assume positions of authority do not automatically have or develop the courage to change. In some instances they have been selected for the very reason that they can be counted on to play it safe, and as they age in positions of authority their mechanisms of self-protection become even stronger. Too many educational leaders have been unwilling or unable to make difficult decisions that seemed to threaten their job security or advancement. In times of uncertainty it does take courage to change, to move off dead center. Self-protection can no longer be justified. Too much needs to be done.

Professor Sarason, for ten years the developer and director of the Yale Psycho-Educational Clinic, has expressed strong feelings about the primacy of the principal in changing the school. He states:

> There is no doubt that those who want to change the school system hope that by changing structures and forces of power they will better the system. 'The system is faulty and must be changed'—this is the most frequent comment one hears, and I, for one, cannot disagree. However, what is missing in these proposals for change (and missing in those instances I have observed where some of these proposals have been put into effect) is any recognition that the principal is the crucial implementor of change. That is to say, any proposal for change that intends to alter the quality of life in the school depends primarily on the principal. One can realign forces of power, change administrative structures, and increase budgets for materials and new personnel, but the intended effects of all these changes will be drastically diluted by principals whose past experiences and training, interacting with certain personality factors, ill prepares them for the role of educational and intellectual leader. In fact, and this point has tended to be overlooked, many of the intended outcomes of the proposed changes could have been achieved by the principal before these proposals ever were made or became matters of official policy.[26]

Head of What?

In the days when there were seldom more than three or four teachers in a school, one was ordinarily designated as "head," or principal teacher. His duties were largely limited to routine administrative chores, grading, and keeping discipline. In addition, these head teachers were expected to carry out regular teaching assignments. These conditions persisted until the last decade of the 19th century when secondary school heads first won recognition as principals followed by the elementary school heads.

As the schools increased in size and number with the growth of the cities after 1850, the organizational problems became more complex. It became the practice to release principal teachers from at least a portion of their classroom responsibilities to perform inspection and administrative tasks. Over-all management of the schools came during the latter part of the century, probably because of crowded conditions and the poor quality of teachers.

Since then, the administrative powers of principals have been enlarged until they have become recognized as the formal and only intermediary between teachers and the administration. The principalship evolved into a full-time administrative job assuming total responsibility for internal management of a school.

The principal today is a man caught in the middle. He is supposed to speak for his school, his teachers, his pupils, and the neighborhood, hoping to provide for everybody the elements of good education. But at the same time, he is supposed to represent the school board and the central office of the local school system and enforce their policies. It is not always easy to harmonize the two functions. For example, the principal

is supposed to give leadership to his staff but, increasingly, decisions concerning teachers have been taken out of his hands by the unions.

As principals became entrenched as administrators, or line officers directly responsible to the central administration, some became aware of and exploited the opportunity to provide true leadership to their schools. But most did not. Principals were slow to take advantage of the opportunity for professional leadership offered to them.

There has been a curious, self-effacing quality about American public school principals. Traditionally, they have played down their position in the community. They have tried successfully to fade into the background, refusing to set themselves above the majority of the middle-class citizens of their communities. Why? Why shouldn't principals assume a role of greater prominence, of real leadership, in the community?

In both 1958 and 1968, elementary school principals were asked by the NEA a number of questions designed to explore their status as executives, administrators and supervisors—questions revolving around the leadership role, in other words. In 1958, 59 percent of the supervising principals thought that the school system placed them in a "leadership" role (that is, expected them to initiate new ideas and have broad authority in the management of their schools). In 1968, the proportion had dropped to 55 percent choosing the leadership role as the best description of their status. According to the NEA study in 1958, 39 percent thought that the central office looked upon them primarily as "supporters" (carrying out policies, but with some freedom of action) and two percent thought their expected role was that of "follower" (one who simply followed the programs, goals, and practices prescribed by the school system). The corresponding percents in 1968 were 41 percent as supporters and four percent as followers. "The difference between the 1958 and 1968 figures suggest a possible decline in the principal's status," the NEA Department of Elementary School Principals concluded. "More principals think that the central office now expects them to support or to follow. This change in proportions may represent a sag in the morale of many principals rather than a measure of what the central office really thinks but in either case it suggests a situation which could affect the initiative and enthusiasm of principals."[27]

While recognizing that some areas of difference exist, for purposes of this report we are considering elementary and secondary school principals together. The high school principal, because of the variety of subjects taught, departments and so forth, has a more complex job in some ways. But the elementary school principal plays a special role as the first authority figure the child encounters outside the home. James Morris, in his 1969 dissertation, "A Study of Sociological and Cultural Background Factors of Public Elementary School Principals in St. Louis and Implications for Training Programs," made this point with special reference to the disadvantaged ghetto child. "If the child is to function in society, he must accept the laws and the symbols of authority of that society," Mr. Morris wrote.

Assuming that the child comes from a family based on the fundamental acceptance of the society in which it exists, the transition should be readily made. In the transition from home to society through school, there exist those figures, such as elementary school principals, who are not too dissimilar to the figures in the home. But, what of the child who comes from a home that is not oriented to the society in which it exists? What if the child comes from a home that is at odds with the existing social order? What if the child comes from no home at all but a collection of

disassociated individuals? This child is expected to succeed equally as well as the child who has had patterns not dissimilar to the established society. Then, it becomes the problem of the school and, specifically, the school leaders to assist the youngster in entering society. The first school leader the child meets is the teacher. But the teacher is the tool of the program. The responsibility for supervising the instructional program falls primarily on the elementary school principal. This, then, is the individual who is the key to the child's future. If this person is properly prepared to compose a curriculum and/or to execute the selected curriculum in such a manner that each child is given an equal opportunity to enter society, no matter what the child's previous experiences and background; then, that person should be the key person to the school and, if the school serves its society, this person should be the key person in the social order.[28]

Evidence that such leadership is important can be found in a study, "Inner-city Children Can Be Taught to Read: Four Successful Schools," recently published by the Council for Basic Education. George Weber, associate director of the Council, looked closely at four schools where children were being taught to read despite all the handicaps associated with big city slums. The schools were P.S. 11 and John H. Finchley in Manhattan, Woodland in Kansas City, Missouri, and Ann Street in Los Angeles. "Their success shows that the failure in beginning reading typical of inner-city schools is the fault not of the children or their background —but of the schools." Weber listed eight "success factors" that distinguished the successful schools from the typical failures. Not listed in order of importance, they were: strong leadership, high expectations, good atmosphere, strong emphasis on reading, additional reading personnel, use of phonics, individualization, and careful evaluation of pupil progress. All four schools had "clearly identifiable individuals" (three of them principals, the fourth an area superintendent) who would be regarded as outstanding leaders by most people who are knowledgeable about our public schools.[29]

The principal's role of formal leadership provides him with an opportunity to provide staff leadership since he is the executive in closest touch with the day-to-day functioning of the school. This has been a major theme in educational literature for decades. For example, in their influential book, *The Teacher and Educational Administration* published in 1942, Reavis and Judd assert: "The tendency at present in most town and city school systems is to regard the principal as the intellectual leader of his school and to hold him responsible for the professional improvement of his teachers."[30]

The chemistry of relationships between pupil and teacher is infinitely complex. What is needed is a mixture of autonomy and support. An attitude of understanding respect for this relationship is basic to well functioning schools. For example, too detailed instructions can kill a teacher's self-esteem, make him feel like a mere puppet dangling on a string. Administrative assertions that "We don't do things that way in this school!" can destroy a beginning teacher's enthusiasm. Encouraged by the creation of a conducive climate, some teachers who have dug themselves into a rut might find the strength to climb out. There is no question but that the principal has a great influence on teacher morale and performance in the classroom and, consequently, on how well or whether pupils learn.

The Michigan Principal — A Case Study

Who are the principals of today? We decided to take a look at one state and to draw a profile of the principal based on whatever information was available.

Our choice of state was made for us because of the paucity of data. Not until the past few years have the states begun systematically to collect data on school administrators, and in most cases, this information is sketchy. California, for example, could provide us no data on the number of principals in its school system, their salaries or turnover rate. New York State, we found, does have a data system on educational personnel. But the State of Michigan has a more extensive system, the only one which could readily provide information in the kind of detail needed. The Michigan reporting method, adopted in 1965, differs from the methods used in most states and from the summaries of questionnaires sent to institutions we have depended on so far to draw profiles of people in education. Michigan has developed a data bank on individuals serving the schools. This makes it possible to frame questions and, within the limits of the data available, find descriptive answers, and to do so without bombarding schools or state departments of education with questionnaires. This type of data collection also provides at least the possibility of doing longitudinal studies using group statistics on changes in teacher ages, preparation and the like, but also on what happens to particular individuals. For the future, it will be possible, theoretically at least, to relate student achievement, geographic area, characteristics of schools served with the characteristics of the teachers, administrators or whatever may be involved in a particular educational enterprise.

In order to determine whether differences exist among the most densely populated and least populated sections of Michigan, we divided the state into three parts. The state divided nicely into the Detroit Standard Metropolitan Statistical Area (SMSA)* (the only section with more than 50,000 students and the most densely populated area), the predominantly rural upper peninsula and the more heavily industrialized lower peninsula excluding Detroit SMSA. We analyzed the data then not only from the point of view of geographic region but also level of appointment and size of school district. The picture that emerged held no real surprises. It generally confirmed what we already knew or suspected to be true for the country as a whole.

To begin with, during the school year ending in June 1970, there were 3,288 principals heading up elementary and secondary schools in the state of Michigan. Two-thirds of them were in charge of elementary schools (67.4 percent) and the remaining one-third (32.6) of secondary schools. About 35 percent were between the ages of 40 and 49. Some ten percent were between the ages of 60 and 69, and only a third as many (3.5 percent) fell in the 20-29 age group. None was over the age of 69, and two principals, one elementary and one high school, had somehow obtained their jobs under the age of 20. It is interesting to note that the average age of elementary school principals was higher. Twice as large a proportion of the 60-69 group headed elementary schools, 12.1 percent as compared to 5.9 percent in secondary schools. Not surprisingly, therefore, we found that the years of experience for both elementary and secondary school principals remained about the same until the level of 35 to 39 years experience. At that point, elementary principals had considerably more experience. Specifically, we found that 246 of the elementary principals had more than 35 years of experience whereas only 70 of the secondary principals had served that long, that is, 11.1 percent of elementary principals had 35 years of experience as compared to 6.5 percent of the secondary. When the three areas

* Hereafter referred to simply as Detroit.

are compared with respect to age, we find that Detroit has the largest proportion of principals at both levels over the age of 40 than either of the two other regions.

The Michigan study confirmed what everyone already knew—that the principalship is a man's job. In Michigan, as in the rest of the nation, the great majority of both elementary and secondary school principals are men. Only 739 of the 3,288 principals in Michigan are women. There would appear to be almost no opportunity for women at the secondary school level where 95.1 percent are men. This dichotomy is even more striking when one looks at the numbers. Throughout the entire state there are 686 women elementary principals and only 53 at the secondary level. On a regional basis, the upper peninsula hires less than 20 percent, or 26, of the women elementary principals whereas the two other districts employ about 32 percent each. Only three of the female secondary school principals were found in the upper peninsula while 39 were in the Detroit area. The lower peninsula and Detroit parted company where female hiring practices are concerned. Only 1.9 percent of the secondary principals in the lower peninsula are women compared to 9.9 percent in the Detroit area. On the elementary school level, women outnumber men in the city of Detroit* with 52.5 percent. Also, the practice of hiring women principals on the secondary level is practically nonexistent in all areas except the largest, namely Detroit. (The size of the district relates to number of students, not geographic size.) Practices with respect to hiring men and women elementary principals correspond precisely to size of district. For the state as a whole, 31 percent of the elementary principals are women but only 18 percent of those serving in districts with a student population of less than 1,500 are women.

Data with regard to race are even more striking. On a statewide basis, 3,142 or 95.6 percent of the school principals are Caucasian. Only 142, or 4.3 percent, are black. There are two American Indian, two Spanish American and no Oriental principals. The chances of a black teacher becoming a principal seem to be greater at the elementary level where 104 serve, than at the secondary level where there are only 38 blacks. In the upper peninsula, reflecting greater conservatism or provinciality of attitude, there are no black principals at all. Sixty-seven of the 104 black elementary principals are in Detroit with the remainder in the lower more heavily-industrialized peninsula. Comparing district size and race, districts with more than 20,000 pupils account for 71 of the 104 black principals at the elementary level while at the secondary level, the over-20,000 districts account for 27 of the total.

The job of producing principals is performed largely by institutions within the state. Only 13 percent of the principals presently serving received their highest degree outside the state. Of those institutions within the state, four have produced more than half (55.4 percent) with Wayne State producing 21.9 percent—more than any other single institution. The four largest institutions vary somewhat as to the level for which they train as indicated in the following table.

Table 1

	Level Principal Trained			
	Elementary		Secondary	
Institution	N	%	N	%
Wayne State	535	24.6	172	16.3
West Michigan	260	12.0	124	11.8
East Michigan	265	12.2	100	9.5
Michigan State	198	9.1	135	12.8
Trained at all other Michigan Institutions	623	28.6	397	37.7
Trained Outside State	294	13.5	124	11.8
Total	2175	100.0%	1052	99.9%

* Not to be confused with Detroit SMSA.

Generally, these institutions serve the sections where they are located. For example, the strong influence of Wayne State seems largely confined to the Detroit area where 49 percent of the elementary principals took their highest degree. Only 2.6 percent of the principals in the lower peninsula and .8 percent in the upper peninsula received their highest degree there.

Principals as a group have largely completed Michigan requirements for elementary or secondary credentials in that 73 percent hold the permanent elementary or secondary certificate with an additional 20 percent holding a life certificate. Exactly five percent of the certificates were awarded on a provisional basis.

There are no principals serving with less than a bachelors degree and only 8.4 percent of the total group hold the bachelors but no higher degree. The great majority of Michigan principals hold at least a masters degree although there are some sharp regional differences, again reflecting generally higher degree holdings in Detroit compared to other sections of the state. In the upper peninsula, for 23.5 percent of the elementary principals the bachelors degree is their highest degree. The lower peninsula has 16 percent at the bachelors level and Detroit only 3.3 percent. The same conditions prevail at the secondary level with 1 percent of the Detroit principals at the bachelor level, 4.5 percent in the lower peninsula and 12.4 percent in the upper peninsula.

It is interesting to note that while there are 232 elementary principals as compared to 43 at the secondary level whose highest degree is at the bachelors level, there are 51 with doctorates serving in the elementary schools but only 24 at the secondary level. The upper peninsula, predictably, had no Ph.D.s while in the lower peninsula 1.4 percent at the secondary level and .6 percent at the elementary level had them. In Detroit, 4.3 percent of the elementary principals had doctorates and 4.1 percent of the secondary principals.

The recently-instituted specialist degree, which is an intermediate step between the masters and doctorate, is also held by more elementary principals in that 82 of them have attained this level compared to 56 of the secondary principals.

There are no great differences with regard to undergraduate majors of principals. Social sciences represent the largest single field of study, with 34.1 percent. Of the other identified fields, the largest single field is physical education with 9 percent. Only half as many physicial education majors serve at the elementary as the secondary level which accounts for 12.9 percent. Following a "miscellaneous" category are language arts with 8.9 percent and physical sciences with 8.6 percent. Two wide discrepancies appear in the city of Detroit for elementary principals. While only 1.8 percent of the principals statewide have a background in industrial arts, 14.6 percent in the city of Detroit have this specialty. The state average for physical education is 6.5 percent and in Detroit 26.8 percent. The background of secondary principals reveals a noteworthy reversal. While social sciences again lead in all-sized districts as the most popular undergraduate major, in Detroit the language arts comes first and social sciences second. On this level, Detroit again leads in industrial arts with 15.2 percent. In physical education, Detroit has only 2.5 percent, or 2 persons compared to 12.9 percent statewide.

Upper peninsula elementary school principals have less experience than those in the other two regions. The largest proportion with 0-4 years experience, 5-9 years experience and 10-14 years experience are found there for a total of 53.8 percent for all three. The largest proportion of people by years

of experience for both Detroit and the lower peninsula are those in the 15-19 years category. In the proportions of years of experience above the 20 year category, Detroit ranks first, with the upper peninsula second and the secondary principals working in the lower peninsula third—a reversal of the picture for elementary principals.

The range in salaries is great with secondary school principals earning about $1,000 a year more than elementary school principals at all levels of pay. The smaller the district, the lower the salary. At the top level, 149 principals earn $20,000 a year or more. The largest single salary group falls in the $16,000 to $16,999 range with 504 principals, or 15.3 percent. However, almost half (49.8 percent) receive less than $16,000 a year with 107 making less than $11,000 and two less than $6,000. Drastic differences occur regionally. Almost three-fourths (73.4 percent) of the Detroit elementary principals receive more than $16,000 a year while only one-fourth (24.3 percent) of the lower peninsula principals make more, and less than one-twentieth of those in the upper peninsula (4.6 percent). Using the same break-off point at the secondary level, we find the comparison holds for the three regions with 93.5 percent of those in Detroit salaried at $16,000 or above, 43.1 percent in the lower peninsula and 14.4 percent in the upper peninsula. For a black woman who wants to make a good salary, the best hunting ground is Detroit. There are no elementary principals in the districts of under 1,500 pupils receiving salaries above $17,000 just as there are none in the largest district earning between $11,000 and $13,000 which is what 43.4 percent of these principals serving in the smallest districts earn. The district-by-district differentials are similar for secondary schools except that, as we have noted, the salaries are higher.

Tomorrow's School Leaders

This chapter has looked briefly at how the concept of principalship developed in American schooling and at the role and self-image of our "head" schoolmen today. It has also drawn a profile of today's principal, as revealed in the Michigan study. Now let us look to the future. Who will our next principals be and what attitudes will they bring to their jobs?

The pool of people from which the great majority of tomorrow's principals will be drawn can be easily identified. Both elementary and high school principals have an extensive background of courses in educational areas, taken either during their graduate or undergraduate work. For this reason, we thought it might be useful to take a look at college freshmen whose probable careers would be in education to obtain a descriptive overview of their social characteristics. This idea would seem far-fetched were it not that the choice of a teaching career shows remarkable stability. Alexander Astin and Robert Panos of the American Council on Education, writing on the basis of a study done on 1961 and 1965 entering-college freshmen and using data furnished by the students when they first entered college and again four years later, noted:

> The choice of career as schoolteacher showed a rate of stability second only to that for the choice of nurse, with fewer than half of those who initially intended to become teachers switching to some other career choice during the four years following matriculation. However, this career choice showed almost no net gain in total students during the four-year interval; apparently, it was not successful in competing with other fields to recruit changers. Compared with those students who initially planned to become teachers, those planning to become teachers four years after matriculation included a very high percentage of women and a fairly high per-

centage of students whose fathers were also schoolteachers. The student's interest in becoming a teacher appeared to be enhanced if he attended either a Catholic institution or a teachers college. Institutions with relatively permissive administrative policies appeared to discourage the pursuit of a career in teaching.[31]

Our comparisons were made between the group of entering freshmen headed for education as a career and entering freshmen headed for other career fields on the basis of data drawn from the ACE's 1969 survey of entering freshmen. Using the data bank and statistical services from the American Council on Education's research program, we were able to examine their data on the basis of career choice—those in education as a career and all others—with a weighted sample of 1,198,000 students not selecting education and 316,849 indicating education as their career choice.

Our analysis revealed few major differences between freshmen choosing education and freshmen choosing other career fields. Moreover, there were very few consistent patterns among the indicators used for a specific social characteristic. That is, freshmen choosing education had a higher percentage than others for some items related to a particular social characteristic and a lower proportion for other items.

Since the principalship is becoming more and more a man's* job we decided to look at the data by sex to determine if there were discernable differences between men indicating education as a career choice and other men. Here, we found greater and more significant differences.

Men headed for education were more likely to have spent most of their childhood on farms or in small towns than in large cities. They came from families with somewhat lower educational attainments and had larger proportions from families at the lowest income level and fewer proportions from families at higher income levels than other students.

Men who gave education as their career choice indicated "middle of the road" as their political preference more frequently (43.1 percent) than men choosing other fields (30.5 percent). The future educators also had fewer of their numbers at the far right or far left of the political spectrum than men aspiring to other fields. While they tended in larger proportions to agree that the federal government should be involved in such social issues as eliminating poverty, speeding school desegregation and changing some aspects of the environment, they were less prone to take an activist role in protesting U. S. military policy, college administration policy, or racial policy. The future educators also more heavily favored mandatory approval of student publications by college officials as well as the banning of extremist speakers on campus. They had larger percentages agreeing that colleges are too lax on student protesters and that the courts give too much concern to the rights of criminals. In other words, the men indicating their career choice as education tended to assign institutions more power in controlling societal problems and individuals than men planning to go into all other fields.

Does this bode well for the principal opportunity in American schooling? This question, we believe, must be raised—and, moreover, we must look behind it to the limitations on training for school leadership imposed by tradition, cost, and other factors.

* Men increased from a minority of 45 percent at the elementary principal level in 1928 to a large majority of 72.2 percent in 1968. (Elementary School Principalship in 1968, Department of Elementary School Principals, NEA, p. 11.) Male principals at the secondary level have always been dominant. In 1965 they were 89 percent of the total. (The Senior High School Principalship, Vol. I, National Association of Secondary School Principals, 1965, p. 17.)

II

Qualifying for School Leadership

Americans have cherished an almost unlimited faith in the higher education credential. Nowhere is this more clearly in evidence than in the production of personnel for the public schools. Anyone interested in entering the field of school administration must go through an elaborate, ritualistic series of steps. First, he must attain the status of teacher. This involves specialized training followed by certification by a state agency. He must then, depending on the state where he resides, teach in the public schools for a period of three to five years. The next step is to take a Masters degree, usually in education and administration, and, in the process, complete certification requirements. Certification, in other words, is the process of legal sanction whereby a certified person is authorized to perform specific services in the public schools of a given state.

The ostensible reason for certification is to establish and maintain standards for the preparation and employment of both teachers and administrators. But here again, we see the system breaking down. The system has long been criticized. It has been pointed out that such brilliant teachers as Albert Einstein would have been denied a certificate to teach in our high schools. It has also been pointed out that certification has erected a bulwark of artificial requirements by which teachers and nonteaching officials have created a monopoly for themselves in public school employment. One critic described certification requirements as ". . . one of the neatest bureaucratic machines ever created by any professional group in any country anywhere since the priesthood of ancient Egypt. In nearly every state today a teacher or principal cannot work in public schools without certification or license, which can be obtained only by taking courses under a faculty of education."[32]

But what we see now is a collision developing between the forces in our society pushing for equality of opportunity regardless of race, color or creed and the traditional methods used to select and promote and economically re-

ward people in the system. Since educators control the credentialing process, degrees, and certificates for the entire society, it is not surprising that they have constructed a "paper tiger" to maintain the present operational system. Each one of the agencies associated with the public school enterprise —whether local district, state or higher education institution, or the national associations of principals and supervisors—plays a part in reinforcing this process. But the system is now under attack in the courts. In New York last June, a federal judge banned the city's competitive examinations for public school principals, asserting that the tests discriminate against non-whites.[33] The decision in New York followed by a couple of months the United States Supreme Court's decision in *Griggs v. Duke Power,* which struck down educational and test standards that are required as a condition for employment, transfer, or promotion where such tests are not shown to be related to the job. This decision will surely lead to changes in employment selection procedures and in the long run will open up greater job opportunities for minority groups in education as in other areas of employment.

The system as it presently operates has a chain reaction response to each change in state credentialing procedures that sets in motion the development of new programs in accredited institutions of higher education. Accreditation is another one of those magic words which enhance the mystery and exclusiveness of the education "club." It refers to the status of a particular program of training offered by an institution of higher education. Sometimes, probationary status is granted. In such cases, an institution is required to take certain steps such as hiring more faculty members with Ph.D.s or expanding library offerings. In the case of educational programs to train personnel in education—whether teacher, principal, supervisor or superintendent —the accrediting agencies may be an arm of the government, state department of education, regional association or the National Council for the Accreditation of Teacher Education operating throughout the United States. NCATE bestows what is called "national accreditation."

The legal basis for accreditation was set in 1787 when the New York State Legislature decided to require members of the New York State Board of Regents to "visit every college in this state once a year" and report yearly to the legislature.[34] Pressures for accreditation began to develop during the last 30 years of the 19th century. The pressure grew out of a situation in which colleges were looking for a device whereby they could find the best-qualified students. Because of the proliferation of high schools preparing for college entrance and the wide variations in entrance requirements at that time, the colleges hit upon the idea of approving secondary school programs and automatically admitting to higher education high school graduates who did well in the approved secondary schools. It was a small step—but a controversial one —to the accreditation of institutions of higher education for the training of school personnel to teach and work in accredited schools.

According to the *National Commission on Teacher Education and Professional Standards* report of 1970, there were a total of 1246 approved institutions in the business of training teachers or other educational personnel. Of these 1234 were accredited by state departments of education. The six regional associations accredited 1137, and 470 were accredited by NCATE. While the largest number of higher education institutions attained approved status through state departments of education action, certain of

Table 2
Number of Approved Teacher Education Institutions with Types of Accreditation*

State	Total Number of Approved Institutions	Types of Accreditation		
		State Department	Regional Association	National (NCATE)
1	2	3	4	5
Alabama	25	25	24	8
Alaska	1	1	1	0
Arizona	4	4	4	3
Arkansas	20	20	19	10
California	55	54	55	17
Colorado	13	12	12	7
Connecticut	16	16	15	7
Delaware	2	2	2	0
Dist. of Columbia	8	8	8	3
Florida	17	17	15	5
Georgia	30	30	30	7
Hawaii	3	3	3	0
Idaho	9	9	9	3
Illinois	61	61	51	23
Indiana	34	34	29	18
Iowa	29	28	27	13
Kansas	24	24	24	13
Kentucky	22	22	22	8
Louisiana	20	20	18	7
Maine	16	16	11	3
Maryland	24	24	22	6
Massachusetts	56	56	47	16
Michigan	26	26	26	11
Minnesota	23	23	23	20
Mississippi	16	16	13	6
Missouri	39	39	38	14
Montana	8	8	8	5
Nebraska	22	22	15	13
Nevada	2	2	2	1
New Hampshire	9	4	5	3
New Jersey	21	21	18	7
New Mexico	10	10	7	4
New York	96	96	93	23
North Carolina	41	41	40	13
North Dakota	8	8	8	6
Ohio	53	53	45	19
Oklahoma	18	18	17	14
Oregon	15	15	15	9
Pennsylvania	80	80	80	25
Puerto Rico	5	5	5	1
Rhode Island	10	10	8	1
South Carolina	24	24	19	1
South Dakota	14	12	12	8
Tennessee	33	33	29	12
Texas	53	52	51	21
Utah	6	6	6	5
Vermont	13	13	11	1
Virginia	34	33	33	6
Washington	15	15	15	12
West Virginia	17	17	17	10
Wisconsin	45	45	29	21
Wyoming	1	1	1	1
Totals	**1,246**	**1,234**	**1,137**	**470**

* From: **A Manual on Certification Requirements for School Personnel in U.S.**, 1970 ed., National Commission on Teacher Education and Professional Standards, NEA, p. 169.

Table 3

Number of State Accredited Programs for Education Leaders

State	Elementary Principals	Secondary Principals	Supervisors	Superintendents
Alabama	16	16	16	16
Alaska	0	0	0	0
Arizona	3	3	3	3
Arkansas	2	2	2	2
California	23	23	23	7
Colorado	4	5	3	4
Connecticut	5	5	5	3
Delaware	1	1	1	1
Dist. of Columbia	5	5	5	5
Florida	10	10	9	6
Georgia	4	4	4	4
Hawaii	0	0	0	0
Idaho	3	3	0	3
Illinois	14	14	13	15
Indiana	6	6	5	5
Iowa	5	5	2	3
Kansas	8	7	8	7
Kentucky	8	8	7	6
Louisiana	12	12	12	0
Maine	3	1	1	1
Maryland	1	1	1	1
Massachusetts	17	17	18	17
Michigan	7	7	6	5
Minnesota	8	6	3	5
Mississippi	7	6	5	7
Missouri	12	12	12	4
Montana	2	2	5	2
Nebraska	5	5	4	3
Nevada	2	2	1	1
New Hampshire	3	3	2	2
New Jersey	6	5	3	2
New Mexico	6	6	6	5
New York	34	34	34	8
North Carolina	9	9	7	6
North Dakota	1	2	8	2
Ohio	1	1	1	14
Oklahoma	3	3	3	3
Oregon	2	2	3	1
Pennsylvania	9	9	3	6
Puerto Rico	1	1	1	1
Rhode Island	2	2	1	1
South Carolina	6	6	6	6
South Dakota	3	3	3	3
Tennessee	8	8	8	6
Texas	19	19	20	19
Utah	4	4	4	4
Vermont	1	1	0	1
Virginia	0	0	0	0
Washington	12	12	5	3
West Virginia	2	2	2	2
Wisconsin	3	3	3	3
Wyoming	1	1	1	1
Total	**329**	**324**	**298**	**235**

Derived from A Manual on Certification Requirements for School Personnel in the United States, 1970 edition, National Commission on Teacher Education and Professional Standards, NEA, pp. 172–208.

these schools are accredited by the state department of education. For example, in the state of New Hampshire, of the nine teacher education institutions, only four are approved by the state department. Table 2 lists the action of the various accreditation agencies by level and by state. From this table it can be seen that New York State, with 96, has the largest number of approved institutions. Pennsylvania is second with 80, Illinois third with 61, California 55, and Texas 53.[35]

While the NCATE stamp of approval has been given to slightly more than one-third of the total 1246 approved institutions, wide variations exist among the states. Only one of South Carolina's 24 is nationally accredited, whereas five out of the six in Utah have attained this status. Three states, Alaska, Hawaii and Delaware, have no nationally accredited institutions. Pennsylvania, where 25 of the 80 operating institutions are NCATE-approved has the largest number.

There are 1200 programs offered by higher education institutions for training leaders for the public schools listed in the *Manual on Certification Requirements for School Personnel in the United States*, 1970 edition (Table 3). There are 329 training programs for the principalship, and 235 for the superintendency. As can be seen from Table 3, there is a wide variation in the numbers of institutions per state offering these programs. Those training programs for the superintendency, for example, are fewer in the more populous states of California (7) and New York (8) than in the smaller states of Massachusetts (16) and Alabama (16). It should be noted here that data for higher education programs in the area of educational administration have only recently become available and are incomplete. The major focus of reports on education training programs in the past has been on the teacher while administrators have been included in a large category called "other service personnel."

If we look at individual institutions we find many more programs than those listed in the "Manual." For example, the "Manual" lists four programs for training administrators and supervisors at New York University—a program each for elementary principals, secondary principals, supervisors, and superintendents. In a follow-up study of 420 graduates of New York University* for this project we found that there were 15 different programs excluding Higher Education offered at three levels (Masters, Specialist, and Doctorate).** If each of these degree levels represents a different program, we have a total of 30 programs (see Table 4) or more than seven times the

Table 4

Sixteen Program Areas of Educational Administration and Supervision And Number of Graduates, New York University, 1965-66 and 1967-68

Program Area	Doctorates	Specialists	Masters	Total
Educational Administration	30	9	130	169
Communications	7		37	44
Vocational Ed., Industrial Arts, Arts & Crafts	6		41	47
Phys Ed, Health, Recreation	6		33	39
Secondary Education	6	1	8	15
Higher Education	5		6	11
Science	4		8	12
Guidance and Personnel	2		18	20
Art	1		3	4
Safety	1	2	22	25
Music	1		6	7
Home Economics	1			1
Business	1		8	9
Curriculum	1		2	3
Cluster Coordinators			13	13
Foreign Languages			1	1
Totals	**72**	**12**	**336**	**420**

* New York University was selected because it was the only institution on the largest producer list of both Masters and Doctorates in Administration, Supervision, and Finance.

** In this report the term Specialist designates that credential now recognized as the level between the Masters and Doctorate degree. This level of achievement is also called Certificate of Advanced Study (CAS) at various institutions.

Table 5

Minimum Requirements in Degrees and Semester Hours For Administrative Certificates*

State	Elementary School Principals	Secondary School Principals	Superintendents
1	2	3	4
Alabama	M	M	M
Alaska	M	M	M
Arizona	M + 24[a]	M + 24	M + 30
Arkansas	M	M	M + 30
California	6 years[a]	6 years[a]	7 years[b]
Colorado	M[a]	M[d]	M + 30
Connecticut	M + 15[a]	M + 15[a]	M + 30
Delaware	M[a]	M	M + 30, or 60
Dist. of Columbia	M[f] (NC)	M[f] (NC)	M[f] (NC)
Florida	M	M	NC
Georgia	M[a]	M[a]	M[a]
Hawaii	M + 20	M + 20	M + 20
Idaho	M	M	M
Illinois	M[h]	M[h]	M + 30[h]
Indiana	M[i]	M[i]	Ed. Sp.
Iowa	M	M	M + 30[j]
Kansas	M + 6	M + 6	M + 30
Kentucky	M + 15[k]	M + 15[k]	M + 30
Louisiana	M	M	M
Maine	B + 6	B + 6	M[l]
Maryland	M[m]	M[m]	M + 30
Massachusetts	B + 3[n]	B + 3[n]	B + 15[n]
Michigan	NC	NC	NC
Minnesota	M[o]	M[o]	M + [p]
Mississippi	M	M	M
Missouri	M	M	M + 30[q]
Montana	M	M	M
Nebraska	M[r]	M[r]	M[r]
Nevada	M	M	M + 15
New Hampshire	M	M	M + 30
New Jersey	M	M	M
New Mexico	M[s]	M[s]	M[s]
New York	M[t]	M[t]	M[t] + 30
North Carolina	M[u,v]	M[u,v]	M
North Dakota	M	M	M
Ohio	M	M	M + 30
Oklahoma	M[w]	M[w]	M[w]
Oregon	M + 22	M + 22	M + 30
Pennsylvania	M + 15	M + 15	M + 40[x]
Puerto Rico	B + 30[y]	B + 30[y]	B + 30[y]
Rhode Island	M[z]	M[z]	M[z]
South Carolina	M	M	M + 1 yr.
South Dakota	M	M	M
Tennessee	M	M	M
Texas	M + 30	M + 30	M + 30
Utah	M + 30	M + 30	M + 30
Vermont	B + 18	M	M
Virginia	M[aa] (NC)	M[aa] (NC)	M + 30[aa] (NC)
Washington	M + 14	M + 14	M + 30
West Virginia	M	M	M + 30[bb]
Wisconsin	B[cc]	M[cc]	M[cc]
Wyoming	M[dd]	M[dd]	M + 15[dd]

* From A Manual on Certification Requirements for School Personnel in the United States, 1970 edition, NEA, p. 64. (The small letters attached to some of the minimum requirements refer to footnotes on page 65 of this publication and designate additional factors in the state regarding certification.)

number reported by the "Manual" for New York University.

Of the more than 150,000 educational administrators serving in the public school systems, more than 90 percent hold a minimum of a Masters degree. In fact, state certification is such that a Masters degree is almost universally required for an administrative certificate. (See Table 5.)

During the last decade the numbers of graduate degrees in education have increased sharply. Masters degrees in education jumped from 33,512 in 1960 to 79,841 in 1970. In 1970, 8,946 of these education masters were in educational administration.[36]

The 1970 report on Doctorate degrees awarded issued by the National Academy of Sciences shows a 26.4 percent increase in educational doctorates over the 1969 figure. Of the 5,836 Doctorates awarded in education in 1970, 1,427 were in educational administration.[37] This was five times the number granted in 1960.[38]

Those institutions producing the largest numbers of Masters and Doctorates in educational administration for 1970 are listed in rank order in Table 6. There is little cross-over among the largest producers, with the exceptions of New York University, University of Colorado, and University of Illinois.

In the last five years, 30 more institutions have been added to those awarding the Doctorate in education, increasing the total to 113. These new doctoral programs are producing an increasing proportion of the degrees awarded as illustrated in Table 7 below. (Institutions awarding the Doctorate after 1960 are referred to as "New Institutions"; those with programs prior to that as "Old Institutions.")

Table 6[39]

Institutions Producing the Most Masters Degrees in Educational Administration, Supervision or Finance, 1969–1970

New York University	220
University of Puerto Rico—Piedras	205
Xavier University—Cincinnati, Ohio	193
University of Colorado—all campuses	162
University of Illinois—Urbana	155
Eastern Michigan University—Ypsilanti	149
Northern Illinois University—DeKalb	132
Memphis State University	122
Northeast Missouri State College—Kirksville	120
Seton Hall University—South Orange, N. J.	119

Institutions Producing the Most Doctorate Degrees in Educational Administration, Supervision or Finance, 1969–1970

New York University	46
Columbia Teachers College—New York	42
University of Wisconsin—Madison	33
Michigan State University—East Lansing	31
Harvard University—Cambridge	28
University of Pittsburgh—all campuses	28
University of Illinois—Urbana	26
University of Tennessee—Knoxville	26
Colorado State College—Greeley	25
University of Colorado—all campuses	25

The Training Programs

What about training for educational leadership? Twenty years ago, the neglected field of educational administration found itself the center of some attention when the Kellogg Foundation decided to invest in graduate education. But as early as the 1930's, there was

Table 7[40]

Doctoral Production of Total Group 1965–1969

Year	Old Institutions No.	Old Institutions %	New Institutions No.	New Institutions %	All Institutions No.	All Institutions %
1965–66	2878	94.2	177	5.8	3055	100.0
1966–67	3145	92.1	270	7.9	3415	100.0
1967–68	3533	89.5	415	10.5	3948	100.0
1968–69	4138	87.6	584	12.4	4722	100.0
Total, 1965–69	13,694	89.4	1,446	9.6	15,140	100.0

discussion in academic circles about the relevance of the programs offered. A 1939 report on a conference on accrediting sponsored by the American Council on Education noted that:

> There was considerable discussion of the possibility of measuring the product of the institution, namely the competence of its graduates rather than its more tangible features, such as the number of books in the library, the size of the endowment, and the teaching loads of faculty members. Several agencies described their experiences with measuring devices of this sort. It was agreed that all attempts to evaluate student performance should be studied and the results distributed to the membership of the agencies represented at the conference.[41]

Interdisciplinary programs were set up at a number of universities to broaden the scope of training. In 1953 Harvard's Administrative Career Program (ACP) started to grant degrees on a performance basis, and dropped the "medieval" requirement of a research thesis. Predictions that graduates would not find employment have not been borne out. ACP graduates are employed in 38 states, Canada and abroad. They hold positions at all levels of education and all segments of society in many varied organizations involved in education.[42]

There is a lot of discussion today about program improvement through interdisciplinary offerings and performance standards but few programs except ACP have taken the obvious step of dropping the dissertation requirement. A 1971 study by Phi Delta Kappa and the American Association of Colleges of Teacher Education concluded that institutions which had set up new doctorate programs in education since 1959 were actually less adventuresome in their programs than those which were in business prior to that date. Table 8 documents this.

The hope that new doctoral programs might be more innovative than old ones vanished with the discovery that all require dissertations for degree fulfillment. The author of the 1971 doctorate study states:

> It was hoped that marked differences might emerge between the Old and New Institutions indicating new trends in preparation of students embarking upon doctoral study in Education. Such was not the case. It has often been felt that new institutions are afforded opportunities to experiment and to innovate without the traditional barriers and pressures impinging upon long-established colleges and universities. However, it may well be that the need for recognition and acceptance places new institutions in a less favorable position with the result that imitation of established practices is given greater priority in the formative years than the setting up of new and experimental programs.[44]

Those who believe it possible to change higher education institutions and thus affect the input into educational administration must concede that, as presently structured, these institutions do not have the necessary flexibility to adopt promising innovations. Programs at institutions offering advanced degrees in educational administration have a great deal in com-

Table 8[43]

Satisfying Terminal Research Project

Type of Project	Old Institutions				New Institutions				All Institutions			
	Ph.D.	%	Ed.D.	%	Ph.D.	%	Ed.D.	%	Ph.D.	%	Ed.D.	%
Formal Dissertation	64	95.5	63	88.7	22	100.0	19	100.0	86	96.6	82	91.1
Field Study Report	..	..	..	..	..	..	..	..	..	..	..	..
Choice	2	3.0	6	8.5	..	..	..	..	2	2.3	6	6.7
No Response	1	1.5	2	2.8	..	..	..	..	1	1.1	2	2.2
Total	67	100.0	71	100.0	22	100.0	19	100.0	89	100.0	90	100.0

mon. In spite of the number of institutional programs to choose from, the pursuit of graduate degrees at Northern University would not differ much from that at Southern State. The requirements, the course offerings, content, and organization would be very similar. The recent Newman report on higher education asserts that:

> American higher education is renowned for its diversity. Yet, in fact, our colleges and universities have become extraordinarily similar. Nearly all 2,500 institutions have adopted the same mode of teaching and learning. Nearly all strive to perform the same generalized educational mission.[45]

Since the quality of the programs offering the same credentials may vary, attempts have been made to accredit on a regional and national basis. Differences in the accreditation process on state, regional, and national levels have created some confusion as to what is and what is not accredited and by whom. The hope that national accreditation would improve the quality of programs by reducing the quantity proved illusory. In 1970, for example, 59,945 of the 79,841 Masters degrees in education granted were from the nationally accredited institutions.[46]

However, in all of these efforts the central point—namely the manner of operation of the existing system—has been overlooked. *It is a local system.*

A questionnaire by this study to the 484 institutions accredited by the National Council for Accreditation of Teacher Education (NCATE)* found that at the Masters and Specialist degree levels part-time enrollment is the pattern. At the Masters level 61 percent of the institutions had 90-100 percent of their students enrolled on a part-time basis. This was true for 58 percent at the Specialist level. Although they reported lower percentages of students attending on a part-time basis at the doctoral level, more than half the institutions still have 50 percent or more students attending on this basis. Regardless of the level of accreditation accorded an institution of higher education—the clientele (except for certain doctorate programs) "drives in" to get its advanced training. *And,* more and more new programs are being instituted "to serve our local district's needs" or "help meet increased state certification standards." *And,* people selected for leadership jobs are drawn from local institutions regardless of their accreditation status.

Formal Training and Leadership

Raising credentialing requirements has been equated with raising standards. Theoretically, one state has higher standards than another if it requires a Masters degree plus thirty hours rather than a Masters degree alone. This might be justified if there were any evidence that it was improving the system. The evidence is quite the reverse.

Early in the colonial period of American history, legislative authority and responsibility for education were expressed in the Massachusetts laws of 1642 and 1647. In the first of these laws, parents and masters were required to instruct children in "the principles of religion and the capitall lawes of this country." Five years later, towns were required to set up schools or pay a fine. The authority of the state for providing and controlling public education stemmed from these simple beginnings.[47]

School administration did not emerge as a profession for some 200 years. In the early years of the 20th century, Paul Hanus and E.P. Cubberly pioneered in university teaching of educational administration. Mid-century saw great changes. Before this time,

* These are institutions with national accreditation which would be expected to have the highest quality programs.

superintendents and principals acquired knowledge from their own experience and from practicing administrators. The dual cataclysms of depression and world war accelerated interest in professional administration of education, and by 1950 there were approximately 90 universities offering doctoral work in this field and several hundred offering programs leading to the Masters degree.[48]

During the past 40 or 50 years, preservice education for school executives has tended to stress first the technical and mechanical aspects of administration, then human relations in cooperative educational activities, and, more recently a theoretical-research approach to the study of administration. The decade of the 1950's was one of ferment in the study of administration, business as well as educational. But increasingly, it has been demonstrated that the effectiveness of the manager cannot be predicted by the number of degrees he holds, the grades he receives in school or the formal management education programs he attends. Academic achievement is not a valid yardstick by which to measure leadership potential. Managers in business are not taught in formal education what they need to know to build successful careers. The same is true in education where leaders must acquire through their own experience vital knowledge and skills. Success and fulfillment in work demand what psychologists have labeled "operant behavior"—finding problems and opportunities, initiating action and following through. Problem solving and decision making in the classroom are often dealt with on an entirely rational basis and require what psychologists call "respondent behavior." This is the type of behavior that enables a person to get high grades in a course he may never use again in later life. This is not the sort of behavior designed to get things done. Instruction in problem solving and decision making can also lead to "analysis paralysis" because of the necessity for explaining and defending actions rather than carrying out decisions.[49]

Overreliance on scholastic learning ability has undoubtedly caused leading universities and business organizations to reject a good number of applicants with greatest potential for creativity and growth. Leader behavior is being seen more and more as a function of the leader, the group, the task, and outside pressures on the group, acting in various combinations. The group task has also been observed to influence leader behavior. And in addition to structural characteristics of the group, interpersonal factors are believed to play a part. Fred E. Fiedler of the University of Washington has documented this in a variety of situations, including school administration in his paper "On the Death and Transfiguration of Leadership Training." Historically, he writes, training has been viewed as a means of changing the individual. The basic but erroneous assumption guiding this training is that the person who is skilled in human relations as well as the technical aspects of the job will be more effective than someone who is less skilled in these areas. Hence, the more training, the more effective the individual will become. "Training has also become a symbol of success and recognition that the individual is in need of remedial help or additional knowledge. Hence, being selected for training implies promotability. Else, 'why would the company spend all this money on a man?' "[50]

Neil Gross, in his book, *Staff Leadership in Public Schools: A Sociological Study*, asked whether there is any positive relationship between formal preparation and success in professional leadership. On the basis of a variety of elaborate tests, he found time and time again that the answer is "no." In fact,

the less extensive the formal preparation of principals, the greater was their staff leadership. "The findings offer no comfort to those who defend prevailing personnel practices in the schools and selection procedures of programs in educational administration at the colleges and universities," Gross wrote. "To school systems that rely almost completely on institutions of higher learning to prepare individuals for the principalship, this should suggest that they reconsider the practice; if the colleges and universities are not equal to the task, school systems may need to play a more important part in preparing principals for professional leadership."[51]

The University Council for Educational Administration (UCEA) Commission on Certification, created to examine requirements and make suggestions for changes, after an extensive study, reported in June 1971 that:

> With respect to legal and quasi-legal constraints, which are the main concern of this Commission, we do not have adequate evidence to justify, particularly with reference to performance criteria, typical existing state certification requirements, university division standards, or preparatory programs in educational administration.[52]

The Oregon State University researchers, as reported by Goldhammer and Becker, saw the same thing. "One purpose of our study was to determine whether principal preparation programs were actually doing the job needed to help principals confront the problems of today's schools."

> We found a crisis in the preparation of principals that parallels the crisis of leadership in today's elementary schools. Principals who were effective could not be distinguished from those who were not on the basis of their formal preparation. . . . In addition, certification requirements in many States appear to be irrelevant to the principal's actual needs. . . . Universities appear to be indifferent toward the needs in this field, save for offering graduate courses and workshops for credit.[53]

Is More the Answer?

When we embarked on this study we shared the generally-held view that the universities which train leadership personnel were the key to improvement. It was our assumption that changes in training programs which made use of various instruments available to higher education institutions such as recruitment, selection, substantive or clinical experiences, placement, school-university cooperation, would provide the necessary tools for change. We rejected this approach not only because the colleges and universities have demonstrated little willingness to change, but because it would take too long. Even if it were possible to control the complete input starting today, given the present estimated 8 percent annual replacement rate* among the leadership group, it might take twenty years. Also, there are just too many people traditionally certified and waiting to take principal's jobs. To a questionnaire sent to state certification authorities across the country, more than half responded that there were more persons qualified to take positions than there were openings for them.

Our New York University study disclosed that earning a graduate degree in Educational Administration or Supervision frequently does not help the recipient progress up the ladder to an administrative or supervisory position in the school system. Astounding on the face of it, this statement is based on the fact that 148 persons responding to our survey were teachers when they applied for their degrees and now, from three to five years after receiving them, 77 or more than half, are still teachers. Only 55 of the 269 persons have gone into school administration or supervision since earning their degree. There

* Derived from data given by State Departments of Education in questionnaire "Supply-Demand for Principalship."

are some plausible explanations for this: not everyone fulfills all the requirements for a higher post; many see unwilling to seek better employment in a different geographical area; some are not really interested in a position beyond teaching. But we feel that the real problem is lack of openings. Individual responses to our questionnaire bear this out. The most frequently stated reason for not having a supervisory position was that there were no openings.

To determine what proportions of the Doctorates in Educational Administration and Supervision actually take jobs as administrators in the public schools we entered the data bank at the National Academy of Sciences which has personal information on Doctorates in the United States compiled from a questionnaire which each doctoral recipient completes at the time he receives his degree.*

Table 9 below shows the proportions by years entering jobs in elementary-secondary administration, higher education, and all other fields.

A clear trend emerges in the proportions of these Doctorates employed by the higher education institutions. The number going into college and university administration doubled—moving from 10.9 percent in 1961-63 to 21.5 percent in 1970. Those taking teaching positions in colleges or universities increased their proportions by a third, from 15.8 percent to 20.8 percent over the ten-year period. The proportions going into elementary-secondary administration increased from the period 1961-63 to 1964-66 but then showed a decrease settling at 30.2 percent in 1970. The average proportion for the ten-year period going into elementary-secondary administration as the first job following the Doctorate was 34.2 percent. However, for the single year 1970 the proportion was 30.2 percent.

From these figures it seems obvious that the Doctorate in Educational Administration and Supervision as a training device to improve the leaders of the public schools is not an effective instrument since two-thirds of them don't even go into the public schools. We also know that there are not significant proportions of these Doctorates taking teaching positions in the public schools waiting in line to become administrators as is the case at the Masters degree level. In 1970, only .3 percent of the nation's public school teachers had Doctorate degrees in all fields combined.[54]

* This is called first job following the doctorate. Many of the people are probably already in the job as the degree seems to be done largely on a part-time basis. See Table 11.

Table 9
First Job After Doctorate
(Field of Doctorate Educational Administration/Supervision)

Year of Doctorate in Educational Administration	WORK ACTIVITY BY EMPLOYER TYPE								TOTAL	
	Administration Elem.-Secondary		Administration College-Univ.		Teaching College-Univ.		All Other*			
	%	N	%	N	%	N	%	N	%	N
1961-63	27.6	497	10.9	197	15.8	284	45.7	822	100	1800
1964-66	39.8	947	17.3	413	18.0	429	24.9	592	100	2381
1967-69	35.6	1125	18.9	598	19.2	608	26.3	832	100	3163
1970	30.2	420	21.5	298	20.8	289	27.5	382	100	1389
Total (1961-70)	34.2	2989	17.2	1506	18.4	1610	30.1	2628	99.9	8733

* This category includes those taking jobs with state and local governments, nonprofit organizations, industry, business, or those who are self employed. In this capacity they may be involved in teaching, administration, research and development or professional services to individuals.

With the burgeoning of these graduate degrees an oversupply of highly "credentialed" people loom in the background to compete for these administrative jobs. In response to a questionnaire by this study on the supply/demand for principalship jobs, New York State reported that "in excess of 15,000 teachers are certified as school principals but not serving in that job." *Their records indicated that 203 jobs were open in 1969-70 for which these 15,000+ would compete.* Table 10 below based on information from this questionnaire shows that 21 of 39 states responding had an oversupply of candidates.

Table 10

Supply for the Principalship Jobs Opening in 1969–1970

People available per opening	Number of states
Insufficient number of people	4
Sufficient number of people	12
More people available than openings	16
Great many more people than openings	5
No response	2
Total	**39**

Since 31 percent of the two million teachers had at least a Masters degree in 1970,[55] can this mean that some 600,000 teachers are eligible to be at the principal's doorstep if they are willing to move?*

The employment situation for Doctorates in education appears to be lean as well. In 1964, 87 percent of the U. S. recipients of Doctorates in education reported that they had signed a job contract at the time they received their Doctorate degree. In 1969, only 80 percent reported that they had a job contract upon receiving the degree. And 10.5 percent of those still seeking jobs upon graduation from their Doctorate programs in 1969 reported "no job prospects." The situation is worse than the percentages reveal due to the increase in the number of Doctorates over these years. Thus the number in 1964 who had not taken jobs was 275 people, but was 824 in 1969.[56]

Another factor which makes this seem a disproportionate number not finding jobs is the tendency of those taking this degree to do so on a part-time basis while already employed in a school system. That students attend these programs largely on a part-time basis is revealed in Table 11 based on

* Seventeen of the 39 states who responded to our questionnaire on "Supply-Demand for the Public School Principalship" indicated that a teacher who had five years teaching experience and any Masters degree could be appointed as a principal and later fulfill specific certification requirements.

Table 11

Enrollments on Part-time Basis

% of students enrolled part-time	Number of Institutions by Program Level					
	Masters		Specialist		Doctorate	
	%	No.*	%	No.	%	No.
100	7	13	17	20	0	0
90–99	54	94	41	49	8	6
80–89	12	21	12	14	11	9
70–79	9	15	2	2	11	9
60–69	2	3	2	3	10	8
50–59	4	7	7	8	19	15
25–49	4	7	8	9	18	14
1–24	6	10	2	3	15	12
0	1	2	2	3	4	3
Not reporting	2	3	7	8	4	3
Total	**101****	**176**	**100**	**119**	**100**	**79**

* Indicates number of institutions.
** Percentages have been rounded.

data from our NCATE questionnaire. One hundred and seven of the 175 responding institutions with Masters programs indicated that 90-100 percent of their students were enrolled on a part-time basis. Sixty-nine of the 119 institutions with specialist programs indicated the same proportions of their students were part-time. Although the enrollment at the doctoral level is not as heavily part time, significant numbers of institutions replied that large proportions of their students are part time. Forty-seven institutions responded that 50 percent or more of their doctoral students were attending on a part-time basis.

In spite of this seeming abundance of training programs for educational administrators and supervisors, the number of institutions offering graduate programs is growing. Table 12 below,

Table 12
Number of NCATE Institutions Planning New Programs in Educational Administration/Supervision

Level of Program	Number	Percent Increase*
Masters	20	10
Specialist	34	40
Doctorate	18	17
Other	2	—
Total	74	

* Based on present number of NCATE institutions with programs at these levels.

again derived from data reported by the NCATE questionnaire, shows seventy-four new graduate programs in just educational administration and supervision being planned for the next three to five years.

Notice the increase in new Specialist degree programs planned; a number of states are now requiring it for certification for administrative jobs.

While this escalation in the number of programs offering graduate degrees has occurred, the number of degrees being granted has naturally boomed. Table 13 shows recent growth in *education* degrees.

Table 13[37]
Total Education Degrees Awarded

Degree	1959–60	1964–65	1969–70
Bachelors	90,179	118,534	166,423
Masters	33,512	43,741	79,841
Specialist	*	*	857
Doctorate	1,547	2,727	5,836
Total	125,238	165,002	252,957

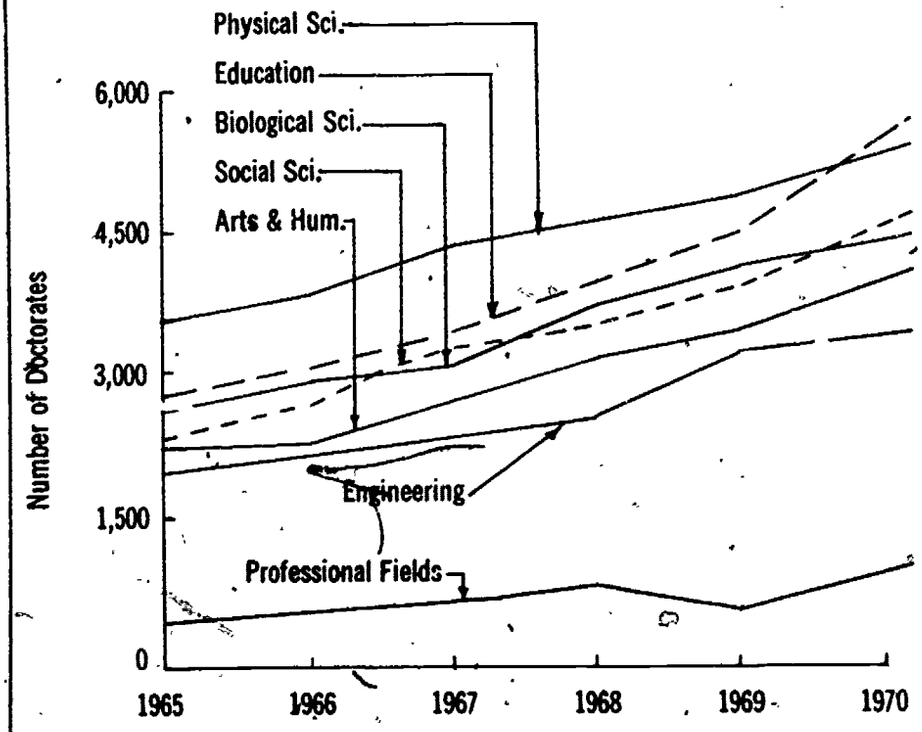
* Not reported.

Table 14 (opposite) summarizes the growth of Doctorate degrees in all fields for 1965-70 and shows that the number of education Doctorates has now surpassed all other fields.

In response to our inquiry, we found that there are several developments in the states which will affect the future supply and demand for principals. One trend would appear to reduce the supply. That is the trend to increase the credentials requirement which continues unabated. Eight states responded that the requirements for the job will include more credit hours or degrees than in the past. Only two states—California and Texas—indicated that they will look for other ways of certifying principals and not rely as heavily on degrees and credit hours. Out of 39 responding states, 23 reported nothing affecting principalship requirements; eight reported increased certification requirements; two reported decreased requirements; three reported consolidation and/or decreased school enrollments; one reported reorganization of elementary schools requiring principals for the first time (South Dakota). Although the Masters degree in educational administration is the most common degree for a person aspiring to the principalship to hold, 17 states indicated that a teacher who had five years teaching experience and any Masters degree could be appointed as principal and later fulfill specific certification requirements. This adds to the pool of people from which principals can be drawn.

Table 14

Number of Doctorate Recipients in Seven Summary Fields and Percent Change from Previous Year, FY 1965-1970[a]



		1965	1966	1967	1968	1969	1970
Physical Sciences	N	3,543	3,828	4,306	4,612	4,964	5,607
	% Change	+18.7	+ 8.0	+12.5	+ 7.1	+ 7.6	+13.0
Engineering	N	2,068	2,299	2,581	2,833	3,234	3,432
	% Change	+25.1	+11.2	+12.3	+ 9.8	+14.2	+ 6.1
Biological Sciences	N	2,679	2,885	3,116	3,681	4,116	4,564
	% Change	+13.4	+ 7.7	+ 8.0	+18.1	+11.8	+10.9
Social Sciences	N	2,377	2,691	3,157	3,538	4,024	4,649
	% Change	+ 3.2	+13.2	+17.3	+12.1	+13.7	+15.5
Arts & Humanities	N	2,324	2,508	2,859	3,177	3,544	4,044
	% Change	+17.3	+ 7.9	+14.0	+11.1	+11.6	+14.1
Professional Fields	N	584	676	834	979	1,234	1,304
	% Change	+10.8	+15.8	+23.4	+17.4	+26.0	+ 5.7
Education	N	2,727	3,043	3,442	4,014	4,618	5,836
	% Change	+16.0	+11.6	+13.1	+16.6	+15.0	+26.4
Total	N	16,302	17,864	20,296	22,834	25,734	29,436
	% Change	+18.8	+10.1	+13.6	+12.5	+12.7	+14.4

IV

The "Average" School

Educational administrators are not a geographically mobile group. The graduate student in education leads all others in "staying home" to pursue his studies. Out of a group of 33,119 graduate students from 153 institutions surveyed in 1969, 62 percent of the students in education grew up in the state where they were doing graduate work. The second closest out of nine fields of study covered in the survey was the law with 55 percent of its people studying in their home states. Of the same graduate students in education, 71 percent said they would stay in the state to work after graduation. Again, they led all other fields in remaining in state with law the runner-up at 69 percent.[59] The most mobile in the field of educational leadership are those who go on for the Doctorate degree, but only a few of these ever become principals. Also, Doctorates in Educational Administration and Supervision are much more likely to remain in the same state at each step up the educational ladder than any other Ph.D. candidates. (See Appendix A)

Moving into the area of work experience, studies show that of the senior high school principals in the northeast 92 percent had grown up in that area; in the southeast 89 percent were natives of that area, and other sections had similar figures indicating nonmobility.[60] This lack of mobility was almost identical for the junior high principal.[61] The majority of those serving as principals grew up in small towns and rural areas.[62] The same holds true for the superintendents, 73 percent of whom came from towns of under 10,000.[63]

Movement from one school district to another has also been quite minimal. Advancement to the administrative position is characterized by progressing from teacher to administrator within the same school system. The 1970 study

Principal

of the assistant principal revealed that 84 percent of those in urban schools and 77 percent of those in suburban schools had advanced to their position of assistant principal after serving many years i. that particular system. In urban school systems 70 percent indicated they had ten or more years of experience in education jobs before assuming the job of the assistant principal as did 47 percent of those in suburban systems.[64] Although data are not available on the inter-district movement of the superintendents, the superintendency study of 1971 showed that 92 percent of superintendents had served only in one state.[65] By making in-service education easily available to teachers it is possible for them to move up the administrative ladder without leaving home or the system in which they are employed.

An investigation of doctoral dissertations on the principalship found that:

- in Kentucky the "average high school principal" was born and reared in Kentucky, and was a native of the geographic area he is now serving[66]
- in Missouri 29 percent of secondary principals were serving in their native home towns[67]
- in Pennsylvania almost all elementary principals received their undergraduate and graduate training from institutions within the state[68]
- almost all the secondary school principals in Arkansas took their BA and MA degrees in Arkansas schools[69]
- 76 percent of the female principals had their degrees from the state in which they now teach[70]

That this localism was not happenstance but a matter of considered choice by board members is indicated

by the following:

- in Michigan 84 percent of those board of education members and superintendents queried indicated they gave preference to applicants on local staff who were considered qualified[71]
- a study of the assistant principalship in Texas indicated that those chosen were usually appointed from within their districts[72]

The placement process heightens this localism. Assistant principals state that the principals and superintendents of the system in which they serve had the greatest influence on their appointment to the first assistant principalship.[73]

In an attempt to trace the training and employment patterns of potential leaders in public education, we instituted a small scale longitudinal study with the cooperation of NYU officials on New York University School of Education graduating classes (1966 and 1968) and worked backwards to the individuals upon whom the statistics were based.

In the end, we received responses from 270, or 64 percent, of those in our population. Of the 270 persons who responded, 99 had received graduate degrees in Educational Administration and the remaining 171 had taken some sort of program for supervisors. Among those who had taken Doctorates in Administration, we found that those who are upwardly mobile seem to change location more frequently, while those who stay in the same place have a slower rate of success in most cases. The majority are hesitant to explore different parts of the country. Sixteen persons, or two-thirds of the 24 reporting in this category, are in the same geographic area they were in when they applied for their degree program, which on an average was 8 or 10 years ago. Among the recipients of Masters Degrees in Educational Administration it is significant that the two persons who have progressed the most steadily are the only two who changed geographic areas. Ninety-one percent of the 65 Masters recipients are still in the same geographical area.

Looking at the eight recipients of Doctorates in various fields of supervision, we found that all have been in the school system right along and only one has changed geographical location while workii his way up. Two are now assistan principals, one having been a teacher before and after receiving his Doctorate, the other having been a guidance counselor before and then assistant principal after receiving his degree. Another person was a principal when he applied for the degree and still holds the same position in the same location. Like the recipients of the Doctorate in Educational Administration exactly two-thirds of the 29 recipients of the Doctorate in Supervision have remained in the same geographic location they were in when they applied for the degree programs. None of the three persons who received Certificates of Advanced Study in supervisory fields has changed his geographic location since applying for the certificate program. In conclusion, we found that the average person receiving a graduate degree in Educational Administration is reluctant to change his geographical location.

The Principal as Localite

America has been called "a mobile entity" by the French writer Jean-François Revel.[74] It is a nation founded by the migration of people and expanded by those responding to the lure of the frontier. It has always been possible to move easily from one part of the country to another and from one sector of the society to another. These days, it is rather the exception for highly educated Americans to stay in one

place for extended periods. Career progress is closely associated with geographic mobility and willingness to change employers and job settings. From the individual's standpoint, advancement clearly relates to geographic mobility and willingness to change employers and job settings. Generally speaking, the more highly educated the person the greater his geographic mobility. A recent Bureau of the Census report on "Educational Attainment" demonstrates how men who moved from one state to another over the period of a year were more likely to be those with the greatest number of years of formal education. In March of 1970, 1,019,000 men had moved to a different state than the one they had resided in the preceding year. Of this number, more than half (534,000) had from one to five years of college education.[75] Progressing from those with the least education to those with the most, the relationship of movers to the proportion of people at the educational level more than doubles. (Table 15)

Table 15[76]

Relationship of Proportion of Men at Educational Level to Proportion Moving at That Level

Less than high school education	.6
High school completed	.7
One to three years of college	1.5
Four years of college	2.0
Five or more years of college	2.2

The proportion of students who leave home to go to college has always been substantial. By the end of the 1960's, more than two-thirds of all undergraduate students in American colleges and universities did not live with their parents or relatives. Many students migrated to other states or regions for their education.[77] But we have also seen that students going into education are less mobile than other students and that school administrators are strongly tied to one locality. In this sense, educational leaders have not shared in the national pattern. They have been denied access to the kinds of experience that come from mobility.

More important than the local origins and lack of mobility of most principals is their "local" as opposed to "cosmopolitan" orientation in the sense first used by sociologist Robert Merton. Stated simply, what this means is that the localite confines his interests to his own community, and the cosmopolitan relates not only to his community but to the outside world as well. In his *Social Theory and Social Structure*, Merton described patterns of influence in terms of local and cosmopolitan influentials, stating:

> The interviews with influentials had been centered on their relations within the town. Yet, in response to the same set of queries, some influentials spoke wholly in terms of the local situation in Rovere (where the study was conducted), where others managed to incorporate frequent references to matters far beyond the reaches of Rovere. A question concerning the impact of the war upon the Rovere economy would elict in the one instance a response dealing exclusively with problems within the town and in the other, to remarks about the national economy or international trade. It was this characteristic patterning of response within a peculiarly local or a more extended frame of reference—a patterning which could, perhaps, have been anticipated but which was not—that led to the conception of two major types of influentials: the 'local' and the 'cosmopolitan.' The localite largely confines his interests to this community. Rovere is essentially his world. Devoting little thought or energy to the Great Society, he is preoccupied with local problems, to the virtual exclusion of the national and international scene. He is, strictly speaking, parochial.
>
> Contrariwise with the cosmopolitan type. He has some interest in Rovere and must of course maintain a minimum of relations within the community since he, too, exerts influence there. But he is also oriented significantly to the world outside Rovere, and regards himself as an integral part of that world. He resides in Rovere but lives in the Great Society. If the local type is parochial, the cosmopolitan is ecumenical.[78]

Continuing his analysis, Merton found that cosmopolitans had been more mobile. The locals were typically born in Rovere or in its immediate vicinity, and went to school there, leaving only temporarily for their college and professional studies. "They held their first jobs in Rovere and earned their first dollars from Rovere people. When they came to work out their career-pattern, Rovere was obviously the place in which to do so. It was the only town with which they were thoroughly familiar, in which they knew the ins and outs of politics, business, and social life. It was the only community which they knew and, equally important, which knew them. Here they had developed numerous personal relationships." Whereas 14 of the 16 locals in the Merton sample had lived in Rovere for more than 25 years, this was true for fewer than half the cosmopolitans. The cosmopolitans were typically recent arrivals who had lived in a succession of communities in different parts of the country. While the cosmopolitans were more likely to be younger than the local influentials, the differences were not the result of age composition alone.

Merton then describes the path to success followed by the localites. "Far more than with the cosmopolitans, their influence rests on an elaborate network of personal relationships. In a formula which at once simplifies and highlights the essential fact, we can say: the influence of local influentials rests not so much on what they know but on whom they know. Thus, the concern of the local influential with personal relations is in part the product and in part the instrument of his particular type of influence. The 'local boy who makes good,' it seems, is likely to make it through good personal relations. . . .

"With the cosmopolitan influential, all this changes. Typically a newcomer to the community, he does not and cannot utilize personal ties as his chief claim to attention. He usually comes into the town fully equipped with the prestige and skills associated with his business or profession and his 'worldly' experience. He begins his climb in the prestige-structure at a relatively high level. It is the prestige of his previous achievements and previously acquired skills which make him eligible for a place in the local influence-structure. Personal relations are much more the product than the instrumentality of his influence."[79]

David Riesman, on the basis of other studies, has suggested the ways in which the roles of local and cosmopolitan influentials may differ in different social structures.[80] Reporting on Riesman's ideas, Merton wrote: "Cosmopolitans who take on positions of formal leadership in the community may be obliged to become middlemen of tolerance, as they are caught between the upper millstone of the tolerant elite and the nether one of the intolerant majority, and thus become shaped into being less tolerant than their former associates and more so than their constituency."[81]

It is not surprising that school principals should characteristically fall into the localite category. Education, as much or more than any other organized activity in America, is locally-based. The school principal, like the local bank president who required some forty years to rise from his job as messenger, speaks feelingly of the slow, long road on which "I worked my way up." If the Merton analysis applies, and we think it does, it would appear too that even those principals with a more cosmopolitan orientation end by being forced into the local mold.

Who Is Chosen and How

As individuals, some principals may

be willing, even eager, to assume a leadership role, though as Professor Sarasan pointed out, they do not always take advantage of the opportunities they have to make changes. Some school superintendents have complained about this too. But all too often, even the most forward-looking are hampered by the system. Politics inevitably rears its head. Generally, principals are selected and trained under the watchful eye of a patron in the central office of the school system. In the competition for administrative status and higher salaries, the kingmakers in the central office are able to choose people who are "right-thinkers" according to their own values. The principal is usually promoted from small to larger schools, from inner-city schools to more prestigious ones. These hierarchial considerations do not always correspond to the needs either of the school or the particular principal. What is important in the first place is to catch the eye of the right person in central office and then stay in his good graces.

It follows then that when the principal assumes office he is not encouraged to initiate change. The neatness and promptness of his reports may become more important than the quality of education in his school. There are always people who will want to review any new program before it can be put into effect. At that point, objections may come from parents, teachers, or just "policy." There are always handy excuses for not instituting reform. Most attempts to change run into opposition from entrenched job holders who feel themselves threatened. After all, the winds of change might blow them out.

Sometimes, when he wins support from his staff or community to make changes, a principal may be transferred to another school. The principal who changes the system stands out as a courageous and often lonely professional whose only reward may be the satisfaction of a job well done. And the inner-city schools, where the need is greatest, suffer most from these practices since they are on the lowest rung of the career ladder.

The professional associations have conducted a variety of programs in response to a growing feeling during the past few years that principals should be released during the school day to engage in certain professional improvement activities. These have included regular college study, in-service programs and exchange visits among principals.

Increased interest in new ideas and a desire to implement them has begun to permeate the schools and their leadership. The concept of sharing responsibility, with an increased role for the faculty as a whole in developing guidelines for methods of instruction has also gained ground in recent years, according to the NEA's 1968 report on elementary school principals. "When asked what specific activity they believed was their most effective way to improve instruction, 57.4 percent of the supervising principals in 1968 checked the item: 'By helping to create a climate in which teachers, individually or collectively, are encouraged to experiment and to share ideas.' " This is a broader concept, the NEA notes, than the one voted most frequently in 1958 by 48 percent which was worded as "providing many instructional materials and maintaining high morale." The group approach was further supported by the 1968 replies to a question on how supervising principals approach the problem of trying out new ideas and innovations. In 1958, more than 80 percent of the principals reported that they liked to experiment with new ideas; in 1968, approximately 30 percent reported that "since I like to experiment, I constantly encourage individual teachers to try innovations. In

1958, 13 percent of the supervising principals preferred to have other schools experiment before they tried new ideas; in 1968 close to 65 percent reported that they encouraged their faculties and individual teachers to examine the research on new ideas, present the evidence to the faculty and then seek for agreement within the faculty on how the new ideas might be carried out. New ideas that led to change, both in 1958 and 1968, came to a large extent from conferences and workshops, other principals, teachers, and central office personnel. Parents and the community accounted for a decreasing percent—from 7 percent in 1958 to 1.2 percent in 1968. Over the ten year period reported on by the NEA, college courses as a source of innovations increased in the decade from 3 percent to 6.5 percent. The outstanding change was the increased role of professional reading as a course of new ideas—a percentage advance from 8 to 20.3 percent.

The NEA also came up with some other information that indicates heightened social responsiveness. Supervising principals have not much changed the extent of their leadership and active membership status in churches, youth groups, such as Scouting, fraternal groups, health and social welfare organizations, veterans and patriotic societies, and intercultural relations groups. There was a significant decline in leadership and active participation in business organizations and community recreation and cultural groups. "But the most dramatic change during the decade in the percents," the NEA report said, "indicates increased participation in political party organizations and civil rights groups. While the proportion showing this expanding interest of principals in current and often controversial problems is not large in relation to the total number of respondents, the fact that this area of lay activity has increased (where other types remained relatively static) suggests some increased social responsiveness on the part of today's principal."[82]

Descriptions of adaptable schools seem to bear out our thesis that cosmopolitan influences are present where there is educational innovation. In these schools, principals may create an innovative staff by choosing teachers, possibly young, with a breadth of training and cosmopolite patterns of information and travel.

These are heartening trends, but they don't go far enough in bringing the principal into the mainstream. One of the difficulties is that the United States is a very large country with many local, state and regional differences. But it has become increasingly evident that whether principals in the small or even middle-sized school systems are aware of the many currents moving throughout society, they and their students will inevitably be affected by them. Principals themselves are becoming aware that greater versatility and inventiveness are demanded. Increasingly, principals are becoming, as the NEA described it, "the nuclei of corps of experts who group and regroup as necessary to meet the challenges and problems as they arise."[83] Because of his position, the principal is drawn into many activities and is exposed to many movements and pressures that are not part of the teacher's experience. The principal will have to pull together the insights he gains from his experience to bring new resources to the instructional process—more as a group leader than as the commanding officer of old. Greater cross-fertilization will benefit everyone and help to lift the principal out of his local environment onto the cosmopolitan plane. Only then, will he be able to deal effectively with the new demands on the schools as a result of changes that are basically national in character.

III Costs of the Present Approach

It is simple enough to state the problem of the costs for producing leaders for the public schools and the amount the system is willing to pay for their services. Any logical person can say that the components of the estimates are:

1. The costs of education—in this instance, the Masters degree.
   a. The cost to the higher education institution.
   b. The cost to the individual for his degree.
   c. The costs to the school systems which give pay increments for the Masters degree.

2. The costs to the school system for the specific service of principals (over and above that for the service of teachers.)

However, the processes of arriving at these cost estimates are so complex and full of qualifications that we are presenting a summary of present estimates at the end of this section (pp. 54, 55). We refer the interested reader to the discussions concerning the specific and detailed points which follow.

Costs of Education

Costs of Graduate Degrees in Education to the Higher Education Institution.

It is only recently that higher education institutions have started to examine their procedures and programs in relation to their costs. A whole new set of procedures have had to be developped and a new center at the Western Interstate Commission for Higher Education—The National Center for Educational Management Systems—has been set up with Office of Education and Ford Foundation support to pursue this complex task.

Budget procedures, organizational terms and methods of allocation of costs of various within university shared services (libraries to parking lots) have all had to be surfaced, defined and allotted within each institution. After that, agreement among the institutions (with some sessions taking on the overtones of a UN talk) are worked out.

The procedure is to break down all costs to a student credit hour basis by level: lower (freshmen and sophomores), upper (juniors and seniors), Masters and Doctorate. This method reveals clearly that the costs are lowest

at the beginning of undergraduate education and increases steadily with the doctoral level being the most expensive.[84]

A study "Instructional Analysis of Tennessee Public Higher Education" by the Tennessee Higher Education Commission found the following relative costs by level for students in education with the average for all fields per credit hour:[85]

Table 16

Total Instructional Cost Per Student Credit Hour

	Lower Level	Upper Level	Masters and Professional	Doctorate
Education	$13.76	$18.95	$30.90	$76.39
Average all fields	12.65	20.30	46.98	111.68

Except at the lower level (freshman-sophomore), the costs per credit hour are less in education than the average for all fields. At the Masters and Doctorate levels they are nearly one-third less.

However, this cannot be construed as a lesser commitment to the field of education by Tennessee as compared to other fields since the quantitative production of credit hours in education so outstrips any other field of graduate study. At the Masters and professional level, 17,062 credit hours of education were given—32 percent of the total credit hours produced at this level. The credit hours generated at the Doctorate level for education were 18 percent of the total credit hours for all 17 fields of doctoral study (Table 17).

One would think that it would be possible to now estimate the cost of a graduate degree by simply computing the number of credit hours needed to complete a degree and then multiply by the cost per credit hour to derive the total. But there are wide variations in the expenditures at the graduate level by institutions in the same state.

At the Masters and professional levels in Tennessee there are ten different institutions offering programs in education. We have already cited the aver-

Table 17[86]

Student Credit Hours Produced in Tennessee Public Higher Education Institutions, Fall 1980

Field	Masters & Prof.	Doctorate
Agriculture	944	359
Biological Sciences	2,972	546
Business & Commerce	4,296	54
Communication Subjects	168	..
Computer Science	90	6
EDUCATION	**17,062**	**1,108**
Engineering	4,241	866
Fine & Applied Arts	977	..
Foreign Languages & Lit.	791	84
Forestry	59	..
Geography	405	138
Health Professions	620	4
Home Economics	742	66
Language Arts	1,866	447
Law	8,339	..
Library Science	669	..
Mathematical Sciences	2,265	191
Military Sciences	60	..
Philosophy	204	30
Physical Sciences	2,637	895
Psychology	3,744	740
Public Services Curriculum	3,420	18
Religion & Theology	18	..
Social Science	4,589	570
Interdisciplinary Studies	63	..
Total	**52,984**	**6,122**

Table 18

Average Cost Per Student in Education, University of California*
(budget in thousands of dollars)

	Systemwide		Berkeley		Davis		L.A.		Riverside		S. Barbara		Irvine	
	Total	Per Stu.	Total	Per Stu.	Total	Per Stu.	Total	Per Stu.	Total	Per Stu.	Total	Per Stu.	Total	Per Stu.
Instruction	4485		1518		367		1562		305		574		159	
Adjusted Instruction	4945	1454	1674	1666	405	1231	1722	1272	336	1388	633	1693	175	1786
Organized Research	1349		160	159	5	15	911	673	55	227	215	575	3	31
Laboratory Schools	487		60	60			427	315						
Public Service	871		859	855	2	6	10	7						
Total	**7652**		**2753**		**412**		**3070**		**391**		**848**		**178**	
Per Student		2249		2740		1252		2267		1615		2268		1817
Base Cost		770		681		714		1096		640		758		725
Total		**3019**		**3421**		**1966**		**3363**		**2255**		**3026**		**2542**
Basic Instruction		2224		2347		1945		2368		2028		2451		2511
Enrollment	3402		1005		329		1354		242		374		98	

* Instruction adjusted for estimated load of education majors on other departments (1.10). Budget data from Ref. 11, enrollment data from Ref. 10, allocation of Deans' offices and supervised teaching not included for Berkeley and Los Angeles. Discussed in "Costs of Study in Education" by James Farmer.

age cost per student credit hour to be $30.90. The lowest expenditure is $24.88 at Tennessee Technological University and the highest is $56.22 at the University of Tennessee, Nashville.[87] Thus, the cost of providing a Masters degree in education in the same state is more than twice as much at one institution as it is at another.

Two institutions in Tennessee offer the Doctorate in Education and their expenditures per student credit hour are $67.73 and $79.52 respectively.[88]

Because of the newness of this approach and the need for access to complex data we asked Mr. James Farmer of Systems Research, Inc., Los Angeles, California, to develop an estimated cost for a Masters and Doctorate of Education degree in California.

His conclusions were:

"The basic instruction cost, given in Table 18: then consists of the base cost and adjusted instruction. The value approximates the cost of instruction for a Masters degree in terms of annual cost per major. If organized research, laboratory schools, and public service projects are included, the cost per student per year is higher and approximates the cost for a second stage doctorate student. (This leaves most of the organized research and public service unallocated to instruction and research. There appeared to be no better approximation from the data available.)

"Thus, for the system, the annual costs per student major appear to be from $2200 to $3000 with significant differences between the campuses.

"Since University students are expected to pursue their programs full-time, a credential should represent some 30 student (semester) credit hours, or approximately $2200. As shown in Table 19 systemwide only 43 students received their Master of Education degree of some 500 students enrolled in the Masters program with an education major. It is not possible to estimate productivity—clearly many of the education majors must be receiving other degrees. Otherwise, the cost per degree would be some $24,000. If a student completes the Masters degree with 45 student (semester) credit hours, then the cost would be approximately $3300. Attrition, or program changes,

Table 19

Degrees Awarded in Education, 1969, University of California*

Degrees	System	Berkeley	Davis	L.A.	S. Barbara
Doctor of Education	127	41		86	
Master of Arts in Teaching	3			3	
Master of Education	43		10	24	9
Total Graduate	173	41	10	113	9

* Data from Ref. 10. Bachelors degrees and PhD not identified by field; education majors may have been included.

appears to be a major factor in the University's unit costs.

"The University awarded 127 Doctor of Education degrees for the 996 students in the Doctorate program. If this were the case, then systemwide, the average student would be taking 7.9 years to complete the program, costing some $24,000 per degree. Apparently, some education majors are taking other degrees or there is a high rate of attrition. It is not possible to determine this from the available data. Most of the students are clustered in the second stage of their doctoral program on the Berkeley and Los Angeles campuses."[89]

Estimate one: Our estimate of the institutional cost of a Masters degree is $3,000.

What is the relationship between institutional costs and student tuition?

Selma Mushkin, a nationally recognized authority in the economics of education, recently developed an analysis as to the income by source for colleges and universities for 1957-58 and 1967-68. Her conclusions are as follows:

"The estimated amounts for each source of funds are shown in Table 20. As the table suggests, tuition and fees financed over 3 percentage points more of student higher education in 1967-68 than a decade earlier; the share of state and local funds rose about 1 percentage point, and that for the federal government very little, except as federal aids to students helped in the enlargement of financing through tuition."[90]

Estimate Two: The student pays about 40 percent or $1,200 of the cost for the Masters degree ($3,000) and the net institutional support is $1,800.

Costs of Graduate Degrees in Education to the Student

The most recent estimates as to out-of-pocket expenditures for graduate study in the field of education are also contained in "The American School Superintendent," a 1971 report by the American Association of School Administrators.

This study questionnaired a weighted national sample of superintendents by size of district (number of pupils) to determine facts concerning expenditures and sources of financial support while pursuing graduate study.

Table 20

Current income for support of student higher education, by source, in colleges and universities, 1957-58 and 1967-68
(Amounts in millions)

Source	Amount		Percent	
	1957-58	1967-68	1957-58	1967-68
Total	$2363.9	$8259.4	100.0	100.0
Tuition and fees	856.1	3260.8	36.2	39.5
Gifts and endowment earnings	346.8	595.1	14.7	7.2
State and local funds	1001.3	3594.3	42.4	43.6
Federal funds	95.5	338.1	4.0	4.1
Other	64.2	462.0	2.7	5.6

Table 21[91]

Estimated Expenditures by Superintendents for Graduate Study (Excluding Opportunity Costs or Unearned Wages)

Range of expenditures	National Weighted Profile for—			
	1 Master's programs	2 Sixth-year programs	3 Doctoral programs	4 Total investment in graduate programs
	Percent	Percent	Percent	Percent
Less than $1,000	9.5%	13.7%	5.7%	6.2%
$1,000–2,499	57.7	52.3	10.3	42.0
$2,500–4,999	26.2	25.3	34.2	29.5
$5,000–7,499	5.4	6.6	23.3	13.0
$7,500–9,999	.2		8.4	2.8
$10,000 or more	1.0	2.1	18.2	6 5
Total	100.0%	100.0%	100.1%	100.0%
Not reporting	32.0%	87.2%	87.2%	29.2%
Mean expenditure	$2,171	$2,313	$5,515	$3,487
Median expenditure	$2,053	$2,041	$4,995	$2,653

According to Table 21 the mean cost for superintendents was slightly more than $2,000 on Masters programs with a total investment in graduate education which averaged about $3,500.

This study excludes any estimates of costs of unearned wages for the time spent in graduate programs that might have been used to provide income to the student.*

The data with regard to full-time study *in residence* are at variance with other information we have obtained (NCATE study; see Table 11, p. 35 regarding part-time enrollment). The AASA study indicates superintendents spent two semesters in full-time residence for the Masters degree and three semesters full-time work for the sixth year. If these data are correct, persons obtaining all three: the Masters, the six-year credential, and the Doctorate spend a total of seven semesters in full-time study.[92]

If this is the case, it would be proper to add to the dollar amount of the out-of-pocket costs listed above the additional cost of two years salary for the Doctorate degree and ⅔ of a year for the Masters degree (unless, as we suspect, the great proportion of work is done during the summer sessions).

How is graduate education supported?

The National Academy of Sciences data bank asks Doctorate recipents how they supported their graduate study. The data requested falls into three categories by the number of semesters of support through:

a) Federal assistance—9 programs
b) Institutional assistance—5 categories
c) Own and family support—5 areas

We have examined the information on 4559 recipients of the Doctorate in Educational Administration and Supervision for the period 1967-1970 inclusive. 69.05 percent of this group (3148 individuals) supplied data on 33,811 semesters of study, an average of 10.7 semesters per Doctorate candidate reporting.

Table 22 shows clearly that almost 80 percent (79.48) of them had to depend upon self help for 58.71 percent

* For a discussion of this cost see Theodore Schultz, "Investment in Human Capital," *American Economic Review*, LI (1961), pp. 1-17; Gary Becker, *Human Capital*, New York: Columbia University Press, 1964, p. 77.

Table 22

Source of Support, Educational Administration and Supervision, Doctorates 1967–1970

Category	Percent Reporting Support	Percent of Semesters Supported
Federal	39.10	18.41
Institutional	58.10	19.94
Own or family	79.48	58.71

Table 23

Source of Support, Educational Administration and Supervision, Doctorates 1967–1970

Own or Family Support	Percent Reporting	Percent of Semesters Supported
Own earnings	67.19	40.87
Spouse earnings	25.44	9.72
Family earnings	5.80	2.50
Loans	18.96	5.62
Other	7.91	2.57

of the semesters for which they report support was needed.

The break-down in this category of own or family support shown in Table 23 reveals that 50 percent of the semesters supported were by their own and/or spouses' earnings.

The G.I. bill which figured so prominently as a source of support reported by the superintendents in the AASA study does not loom as large with this group.* Here 18.84 percent reported support from this source for 9.97 percent of the semesters that they attended school. However, this is still the largest single source of support from federal ources.

Estimate Three: Graduate students in education spend about $2,000 out-of-pocket to attain a Masters degree.

Cost of Graduate Degrees in Education to the School System

The widespread diversity of size, type and setting of the school districts of the country are markedly reflected in the national fiscal support and expenditure patterns. Whether one looks at the wealth behind each student, the amount spent per student, or the numbers of students per teacher, the range is great. And—surprising to most persons the range within each state is almost as great as the range in expenditure in the nation.

Since education is primarily a personal service operation, the greatest proportion (about 80 percent) of the local expenditures go for salaries and fringe benefits for teachers, administrators, bus drivers, and the many other related service personnel who maintain the total complex.

The total amount spent for administration is large in dollars but small in proportion to the total operational cost.

During the 45-year period from 1920-1965 the proportion which the U. S. elementary and secondary schools

* Of the fifty percent of superintendents who responded to this question on financial support in the superintency study, an average of 69.4% received GI or veterans benefits (*American School Superintendent*, p. 49).

Table 24*

The Percentage of Net Current Expenditures School Systems Spend for Administration

Nation Region	Median 3.79%	High Quarter 4.81%	Top Tenth 6.48%	Size	Median 3.79%	High Quarter 4.81%	Top Tenth 6.48%	Expd group	Median 3.79%	High Quarter 4.81%	Top Tenth 6.48%
1	2.84	3.57	4.49	1	2.58	3.20	3.65	1	4.71	7.47	9.59
2	3.92	5.03	6.16	2	2.90	3.35	4.19	2	3.44	5.11	7.52
3	3.87	4.83	6.47	3	3.24	3.87	4.73	3	3.68	4.90	7.30
4	3.66	4.61	6.48	4	3.64	4.28	5.05	4	3.68	4.84	6.25
5	2.76	3.59	4.85	5	3.89	4.87	5.75	5	3.65	4.72	6.28
6	3.43	4.50	6.33	6	5.11	6.33	8.37	6	3.54	4.71	6.42
7	4.95	6.95	9.32	7	6.58	7.88	9.22	7	3.39	4.16	5.14
8	3.91	5.72	8.19					8	3.70	4.68	5.57
9	3.54	4.30	5.35								

spent on administration fluctuated only slightly from a low of 3.3 percent (1957-58) to a high of 3.9 percent (1939-40). This stability occurred during a period when the proportion spent on instruction decreased from a high of 61.0 percent (1920) to a low of 50.2 percent (1955-56) back to 55.0 percent (1965-66). During the same period fixed charges rose steadily from .9 percent to 6.5 percent in 1965-66.

In dollars spent for administration the amount increased almost 30 fold from $36,752,000 in 1920 to $937,646,000 in 1965-66.[93]

The stability of spending for administration evidenced on the national level is not present for administration on a district to district level. In a recent study which compared allocations by district the median was 3.79 percent of the net expenditure, but districts in the top tenth spent 6.48 percent as shown in Table 24 on the opposite page.

The fact that the top 10 percent of the districts spend nearly twice as much proportionally is partially a function of district size but also is affected by the wide differences in salaries paid administrators.

Table 25 below shows that 3.7 percent of the assistant principals in systems of 12,000 or more students (not the smallest districts) received less than $8,000 in 1968-69, while 1.2 percent made between $17,000 and $19,000. The same wide spread in compensation extends all the way up to the level of chief state school officers where the range is from $13,750 (Montana) to $45,000 (New York).[95]

However, given the fact that it is probable that all of the principals in one state may receive more pay than one or more of the State Superintendents of Public Instruction, there is a thread of policy which runs through most salary schedules for local school

Table 25[94]

Distribution of Salaries Paid Elementary-School Assistant Principals, 1968-69, Reporting Systems with Enrollments of 12,000 or More

Item	Enrollment Stratum 1— 100,000 or More	2— 50,000–99,999	3— 25,000–49,999	4— 12,000–24,999	Total, Strata 1–4
Number of Systems Reporting Data on Elementary-School Assistant Principals	20	24	45	83	172
Number of Assistant Principals Reported	1,559	300	301	378	2,538
Salaries Paid					
Mean	$13,696	$11,397	$11,661	$11,435	$12,846
Median	14,112	11,672	11,999	11,487	13,381
Distribution					
Below $8,000	.4	5.3	9.3	11.6	3.7
$ 8,000–$ 8,999	.1	8.3	8.3	10 8	3.7
9,000– 9,499	.3	6.0	2.7	6.6	2.2
9,500– 9,999	.8	7.0	5.0	3.7	2.5
10,000– 10,499	6.8	4.3	4.0	6.9	6.2
10,500– 10,999	5.3	7.3	9.3	5.3	6.0
11,000– 11,499	3.0	7.3	8.0	5.3	4.5
11,500– 11,999	2.4	13.0	3.7	6.6	4.5
12,000– 12,499	4.4	14.0	6.6	6.9	6.2
12,500– 12,999	5.1	7.0	7.3	5.6	5.6
13,000– 13,499	5.1	7.7	11.6	8.2	6.6
13,500– 13,999	12.7	4.0	7.0	5.0	9.9
14,000– 14,499	15.8	3.3	8.3	4.0	11.7
14,500– 14,999	13.6	2.3	5.0	2.9	9.7
15,000– 15,499	9.9	1.0	2.3	5.3	7.2
15,500– 15,999	10.6	1.0	.7	1.1	6.9
16,000– 16,999	2.2	1.0	.7	1.9	1.9
17,000– 18,999	1.4	...	.3	2.4	1.2
Total	99.8	99.8	100.1	100.1	100.2

employees. This is the general acceptance of the "preparation type" salary schedule. Under this type of approach school systems pay for:

1. Type of position: teacher, counselor, principal
2. Amount of education: AB, MA, Specialist, Ph.D.
3. Number of years of experience: in the system, in another school system

While there may be a large overlap in the various schedules such that a young new principal may have some high degree "old timers" on his staff who may get a bigger pay check for classroom teaching, in general we can say that the largest salary differentials are accorded in the order listed above, namely: position, degree status, experience.

Benson pointed out the positional differential in terms of lifetime earnings in Minneapolis:

> For example, in Minneapolis, it was found in 1966-67 that the present value of the lifetime earnings of a teacher who succeeded to a junior high principalship after 10 years of teaching was $178,622, while the present value of earnings of a person who remained in the classroom while accumulating 30 semester credit hours after the Masters degree was only $162,000. Relative to earnings for 40 years of teaching with a Bachelors degree only, the extra pay was nearly twice as great for the principal as for the well-trained teacher: $35,394 as compared with $18,794. [See Charles S. Benson and Clifford P. Hooker, *A Study of Salaries for Professional Personnel* (Minneapolis: Minneapolis Public Schools, 1967), p. 8.][97]

For the purposes of this study we have examined the salary schedules of a number of districts of varying size in this country to find if there were a common thread of implicit policy which runs through the schedules and might illuminate the various values placed on position, degree and experience. We use this as an illustration and not a claim as being representative of the operation of the system as a whole—if such were even possible!

From this analysis of 16 districts* of varying size in different parts of the country we found that payments above

* Over 100,000 pupils: New York City, Baltimore, Los Angeles, Chicago
50,000-99,999 pupils: Portland, Ore.; Denver, Colo.; Buffalo, N.Y.; Austin, Texas
25,000-49,999 pupils: San Jose, Calif.; Jersey City, N.J.; Youngstown, O.; St. Landry Parish, La.
12,000-24,999 pupils: Visalia, Calif.; Boise, Idaho; Duluth, Minn.; Buncombe Co., N.C.

Table 26

Michigan Degree Status and Salary—Elementary Principals 1969–70

Salary	None	Bachelor	Master	Specialist	Doctor	Total
Under $13,000						
%		54.7	13.0	4.9		16.8
N		127	241	4		372
$13,000–$14,750						
%		24.1	21.2	9.8	2.0	20.7
N		56	393	8	1	458
$14,751–$16,250						
%		9.9	21.5	23.2	7.8	20.0
N		23	397	19	4	443
$16,251–$18,000						
%		10.3	25.6	29.3	31.4	24.2
N		24	473	24	16	537
Over $18,000						
%		0.9	18.7	32.9	58.8	18.3
N		2	346	27	30	405
Total		**232**	**1868**	**82**	**51**	**2216**
Percent		**10.5**	**83.5**	**3.7**	**2.3**	**100**

Chisquare Statistic = 378.895 with 16 degrees of freedom (Significant at the 0.000 level)

the *basic salary schedules* were increased on the average as follows:

	Percent of Increase
1. Position (the principalship)	65
2. Unit of Education (Masters)	10-11
3. Years of experience	4-6

Since the increment for the principalship was adjusted in each instance to the length of service during the year (most principals work more days than teachers) and the principals' salaries were also compared to teachers' schedules at the Masters degree and five years experience level (the general entry point for the principalship), we feel that this estimate is in the ball park. The range of position payment difference is 40-120 percent with the average 65 percent. On the basis of these data we arrived at the following:

Estimate Four: School systems pay approximately $750 per year differential to teachers for the Masters degree.

Estimate Five: School systems pay approximately $5,800 per year for the position of principal over and above that for a teacher.

Actual Salaries Paid in Michigan

To examine if the degree level and experience factors are in fact reflected in principal salary payments, we compiled four contingency tables to show the relationship between salary, degrees and experience at the elementary and secondary principalship levels in Michigan.

The tables below show conclusively that the largest proportions of the lowest salaried principals, under $13,000, (54.7% elementary, 60.5% secondary) are in the Bachelors degree categories and the highest proportion of the highest salaried principals, $18,000 plus, are in the Doctorate category (58.4% elementary, 75.0% secondary.)

Salary levels are also related to the years of experience. Those with less experience are more likely to be in the lower ranges of the salary scale than those who have given more time to the system. Tables 28 and 29 document this fact. For the elementary principals 58.6 percent of those with 0-4 years of experience make under $13,000 while only 7.9 percent of those with more than 39 years of experience get this salary. Twenty-seven percent of those at this level of experience are in fact making

Table 27
Degree Status and Salary
Michigan—Secondary Principals
1969-70

Salary	None	Bachelor	Master	Specialist	Doctor	Total
Under $13,000						
%		60.5	10.1	1.8		11.5
N		26	96	1		123
$13,000-$14,750						
%		18.6	18.6	7.1	4.2	17.7
N		8	177	4	1	190
$14,751-$16,250						
%		9.3	16.9	16.1	4.2	16.3
N		4	161	9	1	175
$16,251-$18,000						
%		9.3	20.7	26.8	16.7	20.5
N		4	197	15	4	220
Over $18,000						
%		2.3	33.6	48.2	75.0	34.0
N		1	319	27	18	365
Total		**43**	**960**	**56**	**24**	**1073**
Percent		**4.0**	**89.5**	**5.2**	**2.2**	**100.0**

Chisquare Statistic = 140.947 with 16 degrees of freedom (Significant at the 0.000 level)

over $18,000.

The same situation is true for the secondary principals which can be seen by examining Table 29. Those in the 0-4 years of experience category make up 59.1 percent of those earning less than $13,000 per year while those who have given over 39 years to the system have only. 14.3 percent of their ranks earning this amount. In fact, 60.7 percent of those with more than 39 years of experience are salaried over $18,000.

Summary of Present Estimates

Because the data come from a variety of sources they can be quite different, as we have indicated in the discussion of each variable. The reader could be quite correct in challenging the assumptions and developing his own estimates for a particular situation. (State, higher education institutions, or type of student group)

Table 28

Experience and Salary, Michigan Elementary Principals 1969-70

Salary	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	Over 39	Total
Under $13,000										
%	58.6	39.2	16.7	9.8	11.9	10.0	6.7	11.4	7.9	16.8
N	34	127	76	49	28	22	12	15	9	372
$13,000-$14,750										
%	25.9	33.0	23.7	18.9	14.0	16.0	12.3	18.9	16.7	20.7
N	15	107	108	94	33	35	22	25	19	458
$14,751-$16,250										
%	6.9	17.9	23.7	22.1	20.0	19.2	20.1	19.7	10.5	20.0
N	4	58	108	110	47	42	36	26	12	443
$16,251-$18,000										
%	6.9	7.1	26.8	26.3	26.4	29.2	27.4	29.5	37.7	24.2
N	4	23	122	131	62	64	49	39	43	537
Over $18,000										
%	1.7	2.8	9.2	22.9	27.7	25.6	33.5	20.5	27.2	18.3
N	1	9	42	114	65	56	60	27	31	405
Total	**58**	**324**	**456**	**498**	**235**	**219**	**179**	**132**	**114**	**2215**
Percent	**2.6**	**14.6**	**20.6**	**22.5**	**10.6**	**9.9**	**8.1**	**6.0**	**5.1**	**100.0**

Chisquare statistic = 441.712 with 32 degrees of freedom (Significant at the 0.000 level)

Table 29

Experience and Salary Michigan Secondary Principals 1969-70

Salary	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	Over 39	Total
Under $13,000										
%	59.1	31.5	10.5	6.2	5.2	4.0	5.3	7.1	14.3	11.5
N	13	45	24	19	8	3	4	3	4	123
$13,000-$14,750										
%	9.1	32.9	24.1	16.7	13.0	9.3	2.6	9.5	7.1	17.7
N	2	47	55	51	20	7	2	4	2	190
$14,751-$16,250										
%	9.1	18.2	24.1	18.7	13.0	5.3	10.5	4.8	3.6	16.3
N	2	26	55	57	20	4	8	2	1	175
$16,251-$18,000										
%	9.1	10.5	19.7	26.2	24.0	24.0	15.8	16.7	14.3	20.5
N	2	15	45	80	37	18	12	7	4	220
Over $18,000										
%	13.6	7.0	21.5	32.1	44.8	57.3	65.8	61.9	60.7	34.0
N	3	10	49	98	69	43	50	26	17	365
Total	**22**	**143**	**228**	**305**	**154**	**75**	**76**	**42**	**28**	**1073**
Percent	**2.1**	**13.3**	**21.2**	**28.4**	**14.4**	**7.0**	**7.1**	**3.9**	**2.6**	**100.0**

Chisquare Statistic = 297.068 with 32 degrees of freedom (Significant at the 0.000 level)

1. The costs of education—Masters degree	
a. To the higher education institution . . . . . ($3,000—$1,200 paid in tuition)	$1,800
b. To the student	2,000
	$3,800
2. The costs to the school system	
a. Teacher salary differential for a Masters degree (annually)	$ 750
b. Principal salary differential for position (annually)	$5,800
Putting this on an annual national basis—	
The present numbers of Masters in education produced is at 80,000 persons. Therefore, institutions are spending 80,000 × $1,800 . .	$144,000,000
Individuals are spending to get the degree (80,000 × $2,000) .	160,000,000
	$304,000,000
School systems are presently paying a differential of $750 per year more for the Masters degree than the Bachelors.	
There are 720,000 teachers in the system with an MA (720,000 × $750)	$540,000,000
Total annual investment in the MA degree	$844,000,000
The national investment differential in the principalship is 70,000 (supervising principals) × $5,800 . . .	$406,000,000

The major costs upon which we have made decisions are:

a. To the higher education institution: Many institutions' programs at the Masters degree in education level are self supporting from tuition and fees. Are we proper in considering an institutional contribution of $1,800? We don't know but feel there is considerable subvention of higher education data that has yet to come to light.

b. To the individual: What about foregone income? If individuals take off two semesters to do full-time study, doesn't the individual contribute ⅔rd of a year's salary which @ $10,000 per year could approximate $6,700? We think that the great majority of students in education get the Masters degree while holding a full-time job and therefore did not include this in our cost estimate.

c. To the school system: The NEA reports that the average salary differential for the Masters degree on *salary schedules* has nearly doubled in dollar amounts between 1962-3 and 1969-70, from $348 to $675.[98] However, the larger cities pay considerably more for the attainment of the M.A. New York City pays $1,500. Since there are many more teachers in the larger systems, we feel our $750 estimate to be tenable. In actual practice, the salaries paid to teachers averaged $9,218 while that paid principals was $15,126 for 1970-71 according to NEA estimates. This difference of $5,908 is slightly higher than our estimate of $5,800.[99]

However, two questions come to mind with regard to these data.

1. With the lack of evidence that a Masters degree teacher performs better in the classroom, is the system wise in spending almost 850 million dollars for this degree alone or could these funds be directed toward some reward system related to pupil growth?

2. Since the public schools are paying a differential of over 400 million dollars for the principalship position, why is so little attention being paid by the federal government to this key slot? Only about $4 million out of over 5 billion is directed toward upgrading administrators, none of which is pointed directly toward the principal.

A Plan for Principal Improvement

Gifted man or woman power, it seems, does not automatically result from the completion of prescribed courses in education. Many Americans have made important contributions to education without benefit of the Doctorate. Among them are two former U. S. Commissioners of Education, Francis Keppel and Harold Howe. Some outstanding leaders have come from quite different disciplines. James B. Conant was a physicist before he became president of Harvard. Horace Mann was trained at law. It is all very well to say that we need extraordinary men and women to fill positions of educational leadership. But where are they? As has been stated by a number of people, "American education, unfortunately, has no surplus of able, enlightened, creative, knowledgeable, and effective leaders."

In our opinion we must make the best use of what we have, both in terms of the system itself and the people who command it. We do not favor making major structural changes in the locally-based system. The system we have corresponds to our deepest instincts as people. There would be no advantage to turning the whole thing over to the federal government. What can be done?

Just as the principal's role and performance need to be examined in the context of the social system in which he works to arrive at an understanding of the influences of social forces and pressures on him, a training program needs to draw attention to forces external to the school.

School administrators have been thrown, somewhat against their own inclinations and desire for order and symmetry, into the center of all the issues and pressures of American society. Some are finding the pressures unbearable and are quitting the field of education altogether. Several problems can

force them out: actual attacks, teacher strikes and negotiation, the caliber of superintendents and school board members, inadequate financing, student unrest and general social-cultural ferment.

Because of the inflexibility of graduate programs to change Doctorate degree requirements, several attempts to provide training and development opportunities without a degree have been started. One, the Washington Internships in Education, has been in operation for six years with about one hundred persons completing its one year program. The goal of the program is to provide a national perspective for about twenty persons a year and is not concerned about where the interns decide to take positions after their internship. It is believed that they will choose assignments where they feel they can make maximum use of their learnings and thus contribute to education in its broadest sense. It is interesting to note that education's largest employer, the public elementary and secondary schools, has attracted only eight of these people. Further, only one of these eight has not already received or is in the process of earning a Doctorate through some higher education institution.

The Office of Education has just started the National Program for Educational Leadership involving seven institutions and agencies to attract persons from other fields (theology, law, engineering . . .) into education and provide experiences and training for them to enter the field of education in leadership roles. (No degree is granted and presently only 35 persons are involved.)

It seems evident that a training focus on the key persons in charge of the individual school—the principal—can result in a direct improvement of the school. This training must be of a new

type which would take the principal out of his immediate environment and expose him to national problems and processes, training that would give him diversity of experience and knowledge to bring back to his leadership of the school and community. Many studies have pointed out the effectiveness of those with a more cosmopolitan orientation:

- more innovative principals secured their information about curricular innovations from more cosmopolite sources than did less innovative principals[100]
- successful principals are more mobile—less are employed in the area where they were reared[101]
- the highly innovative principals had more participation in conventions and 59 percent of them said they had travelled outside their districts for professional reasons (vs. 38 percent national average)[102]
- elementary principals in developing programs to meet the needs of local schools must be prepared to cope with environmental changes of a society with a strong social purpose.[103]

We concur with many ideas expressed in a recent article, "A New Kind of Principal," by Willard Wayson when he stated concerning training:

Training: Look for knowledge rather than credentials. Value breadth of educational experience in a variety of settings and fields. Training in education is not necessary and may even be detrimental to problem solving in today's schools. Look for knowledge of sociology, political science, community organization, innovative educational processes, organizational change processes, or related fields. Look for knowledge of social problems and a willingness to hypothesize their causes, but distrust answers that imply that causes are not often separated in time and distance from effects. Reject answers that imply that social problems are just too complex to be resolved. Seek evidence of intensive knowledge of organizations and how they function. The candidate should know about the usefulness of organizations for attaining goals, the relationship between organizations and society, the influence of organizations on people, with particular knowledge about the pathology of bureaucracies (not to denounce bureaucracies but to prevent their ill-effects). The candidate should also have knowledge of educational goals and should know how to locate and use resources and expertise to help develop a school that can attain those goals. He should show that he knows that the usual simple statement of goals is of little value in either organizing or evaluating a school.

These criteria call for a different kind of person to fill the principalship. Our world demands educational reform, and reform necessitates change. Despite widespread attempts to do so, one cannot possibly change without changing. Changing the product of an organization requires changing what people do. What the administrator does always affects what people do and what they produce: thus, changing the principalship seems imperative for improving education. Consequently, the recruiting or the training of principals who function differently should be a major priority of educational reform. These principals will have different experience, different training, different attitudes, different loyalties, and different functions. The new principals, wherever we can find them, are the best source of information about just what those differences might be. America can ill-afford to ignore their contributions or permit their demise as long as the school system is supported as an influential and powerful social institution. Even if its present formal structure should decline in importance, education as a social process cannot be eliminated, and it will reappear in some new organizational forms. From all indications, these new forms will depend on competent leaders who have the skills and who perform the role exhibited by the new principal.[104]

Our goal is to give a large number of our present principals "different experience, different training, different loyalties, and different functions."

Proposal for a Three-Phased Action Program

How would we do this?

We propose a refocused three-phased

action-oriented program that would deal directly with the reform of the existing system in a training and development capacity and that would concern itself solely with public school principals and assistant principals. Such a program must deal with the following areas: (a) questions that should be investigated; (b) method of implementation of reforms; (c) organizational structure and operations of the program; and (d) costs.

A. The Questions—

About Leadership Personnel

- The need for teacher training has long been recognized and is met with the allocation of a great deal of national effort in money and programs. Is the training of school administrators as important as that of teachers? Should a national program consider the public school principal and his development?
- While American education has attempted in the last twenty years to define teaching, have we tried to determine what a good principal does and how to enhance his effectiveness?
- Will the continued lack of interest in the importance of the principal result in further decline in the profession? Is some focus required to recruit better personnel and ensure high quality programs for training?
- Can we identify a process that will further support a principal beyond his training period?

About the School System

- While there are many good principals in our public schools today, is their excellence in spite of or because of the system? Could a program of leadership development for those people who are directly in charge of the schools have a new impact on the system?
- Is there a way of upgrading the existing system without psychologically downgrading those presently serving it?
- Can a program be devised which will enlist the support of the system to the advantage of the individual participant and his school during and after his participation?
- Through what type of individual can gains to the system be maximized?
- What procedure can assure that gains in personal development for those holding leadership positions will directly benefit the system and not result in their exodus from it?

B. Method of Implementation

Because of the scope of the proposed project its specific implementation cannot be described in this proposal in detail. In *outline form,* however, it would perform the following tasks, all designed to enhance the overall understanding and ability of American public school principals:

1. This project, national in scope, would provide 1,000 principals or assistant principals per year with an opportunity for a full year's training. (The 1,000 selected from the under 35 age pool which presently numbers around 13,000).

2. The project would operate for five years* so as to provide an opportunity for 5,000 of the present 13,000 under 35 age pool.** (We expect that this age group will increase as the program becomes known to districts and individuals. Thus, if eight percent of the 88,000 principals and assistant principals leave each year—retirement, etc. —a larger proportion will gradually enter from the below 35 age group as replacements.)

3. The training program would focus on task completion ventures which lend themselves to establishing

* Five years is the usual maximum life potential of any special federal program. However, at the end of five years one in eighteen of the total principals serving American public education will have directly participated.

** Some adjustments to this age limit of 35 may be required in urban areas to "lowest ten percent in age."

performance criteria for decision-making and other leadership actions.

4. The training program and the selection of participants would utilize those elements inside and outside the existing system most capable and receptive to the goals of the program and the effectiveness of the individuals involved *during* and *after* participation.

(Complete dependence on university resources is one of the system's present weaknesses.)*

5. Each participant would have extensive opportunity for self-growth, but would also be fully aware of involvement in a national program and identification with the "cadre" of the future. (A conscious use of the Hawthorne effect worked in the Peace Corps.)

6. The program would carefully utilize the scarce talents available to the training program so as not to place an overload on the time and skills that individuals and institutions are willing to provide.

7. External evaluation procedures and vehicles form a part of the overall plan. Such activities would be described and programmed at the outset to give feedback for program improvement as well as assessment of total effect.

8. The principals—to ensure program impact on local schools and district release of participants—would be required to serve their local school for at least two years after the completion of their program experience.

9. The overall program would provide project support to principals for a year or two after their participation in the program so as to assure the school and the district of a residual share in the development effort.**

The implementation of these activities could occur in three planned phases adhering to the following schedules:

Phase I—Preliminary Activities
(One Year:
September-August)
Phase II—Developmental Activities
(One Year:
September-August)
Phase III—Operations and Implementation
(Five years:
September-August)

PHASE I: Preliminary Activities

This phase of the study would of necessity explore the overall feasibility of the project and the advanced planning of its operations and implementation. All of the ideas and goals of this project are merely hypotheses that must be explored. Such an investigation necessitates consideration of the following:

Participation in the Project

- Can and will the organizations listed (a foundation, the U. S. Office of Education, a State Department of Education, a consortia of public education agencies, a suitable non-profit organization, the local school districts) cooperate in such a venture?
- Are there others that should be involved and in what manner?
- What relationships can be developed to ensure their cooperation in the project?

Resources for Training

- What resources are available or must be acquired to operate the various training and developmental stages of the project?
- After resources are identified what will be their planning needs?

Principal Receptivity

- What is the receptivity for such a program among the principals in the under 35 age group?

* See Newman, *Report on Higher Education*, Chapter 13, pp. 61-86 for their discussion on new types of educational enterprises.

** An effort will be made to enlist the largely untapped resources of local foundations in these individual school projects—perhaps on some kind of matching basis to stimulate participation.

- What recruitment processes must be worked out?
- What kind of program will have the most impact on the principals (in their view)?

Funding

- What funding mechanisms must be established to perpetuate the program?
- Can this project operate under existing legislative and administrative regulations?

Organization

- What kind of operational methods should be devised to handle the principals in the program?
- What organizational structure must be developed?

Personnel

- What personnel should be selected to work in the training phases?
- Should such personnel represent various segments of the educational community?

We estimate that the foregoing activities will demand about one year (September-August). A staff of four would seek the answers to the basic questions expressed and implied in this proposal, obtain the necessary approvals of the program concept by the various participating agencies, and select program elements and resources for the Developmental Phase. Project publicity announcements would be released at the conclusion, if Phase I is successful.

PHASE II: Developmental Activities

The developmental phase of the program would consist of one year of activities in which all components of the program would be designed, identified, and procured. All such activities look forward to actually implementing Phase III (operations) of the program the following September.

A regional office structure would be established based on the U. S. Office of Education's ten regions, substituting Washington for Philadelphia, but including Boston, New York, Atlanta, Chicago, Dallas, Kansas City, Denver, San Francisco, and Seattle. The process of selection of the 1,000 principals would begin in September. All such selections would be concluded in February. (Local district contractural arrangements inevitably require this cutoff date.) The training program elements would be designed and developed by the selected agencies under project supervision (see ORGANIZATIONAL STRUCTURE AND OPERATIONS). Fifty group leaders would be selected, five each by the ten regional associate directors. The staff would orient them during June and July on the goals and procedures of the program.

In this year, all plans would be readied for the actual training of the principals and the implementation of Phase III, Operations.

PHASE III: Operations Phase

In September of year X, one thousand principals would take part in a training and development program to last from September to September with the month of August reserved for vacation.

Phase III would carry out two main goals:

First, since most principals are the products of local districts and local universities, the program would provide experiences and learning opportunities which would expose them to conditions and thinking on national, regional, and state levels.

Secondly, the design of the programs would provide a "decompression" sequence. The principals would first experience a highly structured design; then one which emphasizes individual development; and finally a design

which stresses a single project commitment. It is our feeling that the highly circumscribed environment in which principals presently operate would make it impossible for them to adjust to a largely individualized program such as Washington Internships in Education provides. (However, the major gain of the W.I.E. approach psychologically appears to be an increased "tolerance for ambiguity"— not something to be taken lightly in our increasingly changing society!) Thus, we propose to move the principals from security to freedom—from training to development. For that reason, insofar as possible, the various aspects of the program would culminate in a task performance by each member—an actual decision, a simulated choice, an analysis of alternatives . . .

Both of these goals provide problems in setting up the program. How can the program provide the principals with wide exposure without "show and tell" superficiality? How can it structure decompression without overloading certain parts of the training system at a given point in time?

We would include the following experiences and/or substantive exposures in the program:*

1. Technology and its relationship to society and education.
2. Process and product in national policy development.
3. Implications of community organizations.
4. The role of state agencies in the U. S.
5. A multi-cultural vs. melting pot society.
6. Management theories and practices.
7. Evaluation and decision making.
8. The economics of society.
9. Divergent educational views and practices.
10. Esthetic and cultural experiences.

Approximately 100 principals and assistant principals would be in training at each of the ten regional centers in a given month. During the ten-month period each participant would receive a month's training and exposure at each of the ten regions. Each center would be operated by a regional coordinator who would each be assisted by five group leaders at a given time.

C. Organizational Structure and Operations

Thus far the Congress and the Office of Education have allocated funds almost entirely to the universities to operate training programs for educational personnel. However, the type of program we envision will utilize a different set of institutions for the various aspects of the project. While certain universities may be involved, we do not propose to grant them complete control.

The institutions that we hope to involve and the expected nature and scope of their involvement follows:

1. A Foundation would:
   a. Support those feasibility and exploratory aspects of the program which will be necessary to gain the support of the U. S. Office of Education.
   b. Support the development of performance criteria and its application to program participants and to the participants in general.
   c. Support preliminary program development activities.
   d. Support external and process evaluation.
   e. Support certain conference expenses and other activities not funded by the Federal Government.

* See Appendix B for a general statement as to how the proposed New England Regional Office might provide the program focus on technology in its relationship to decision making in education.

2. The U. S. Office of Education would:

a. Provide necessary program authorizations and financial allocations.
b. Assist program announcements and dissemination.
c. Appoint a National Advisory Council on Educational Leadership (leaders from all parts of the society).
d. Provide the necessary reporting and auditing capabilities.
e. Make program opportunities available through regional offices and State Superintendents of Public Instruction.

3. A State Department of Education would:

a. Receive federal funds for the program.
b. Arrange to pay salaries to the school districts of selected principals involved.
c. Sub-contract with a suitable non-profit organization for program operation.
d. Develop performance criteria.
e. Award an appropriate degree based on program performance.

4. A Consortia of Public Education Agencies would:

a. Aid in dissemination of program objectives and create a pool of applicants.
b. Determine the final screening and selection of candidates.
c. With the assistance of its members aid in programs relating to the various states and regions.

5. A Suitable Non-Profit Organization would:

a. Maintain a contract with a State Department of Education.
b. Administer all phases of the program not specifically allocated to other agencies.

6. Local School Districts would:

a. Assist in publicizing programs.
b. Nominate and endorse principal candidates.
c. Release principals for a year.
d. Aid principals in project continuation and consummation on return to district.
e. Assist in evaluation of program effectiveness based on pre and post performance of participants.
f. Cooperate in the individual school post-program project.

D. Costs

The proposed program will cost less than forty million dollars a year when fully operational. This sum, though large, is less than one tenth of one percent of the monies now spent on the public schools and would amount to about one and a half percent of the total federal public elementary and secondary educational expenditures.

After only five years of operation the program will make a direct, a marked, and a positive contribution to the effectiveness of one of every 18 principals and schools in the nation.

Our present cost estimate of a fully operational program would be approximately $33 million per year. About two thirds of this amount will be salary reimbursements to the districts and per diems for the principals while they are participating in the program. The remaining amount will be in training costs, travel, and operational expenses. Obviously, this aspect of the overall budget needs to be developed at some future date.

Preparation for the operational year will include the costs of the Preliminary Phase I at $213,000 and of the Development Phase II at $1,695,000.

Is this cost too high for the repair of a faltering system through seizing the principal opportunity that we see as eminently graspable?

We think it is reasonable.

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Appendices

Appendix A

Mobility of Doctorates (Educational Administration/Supervision) as Compared to All Doctorates

The most educationally mobile in the field of educational leadership are those attaining the doctorate. They comprise about two percent of the 150,000 people who fall into the category of "leaders" in education. They are three percent of the principals, 15 percent of the superintendents. The payoffs in terms of promotions, salaries and prestige reward those attaining the doctorate. The stimulation has been such that the number of doctorates awarded in education has grown rapidly and in 1970 outnumbered doctorates in all other fields. Since educators in leadership positions tend to take the doctorate in educational administration and supervision, a look at the geographic mobility patterns of these people—the most highly credentialed in the field—in comparison with the other doctorates can give us some ideas about their careers.

From the data bank on doctorates at the National Academy of Sciences we have been able to develop exact information on the geographic mobility of those who achieved the doctorate in educational administration and supervision from 1961-70. The following table derived from these data based on individual questionnaires shows the percentages of doctorates during the period 1961-70 who remained in the *same* State at the following career transitons:

- State of high school to State of baccalaureate institution
- State of high school to State of doctorate institution
- State of high school to State of post-doctoral employment
- State of baccalaureate to State of doctorate institution
- State of baccalaureate to State of post-doctoral job
- State of doctoral institution to State of post-doctoral job

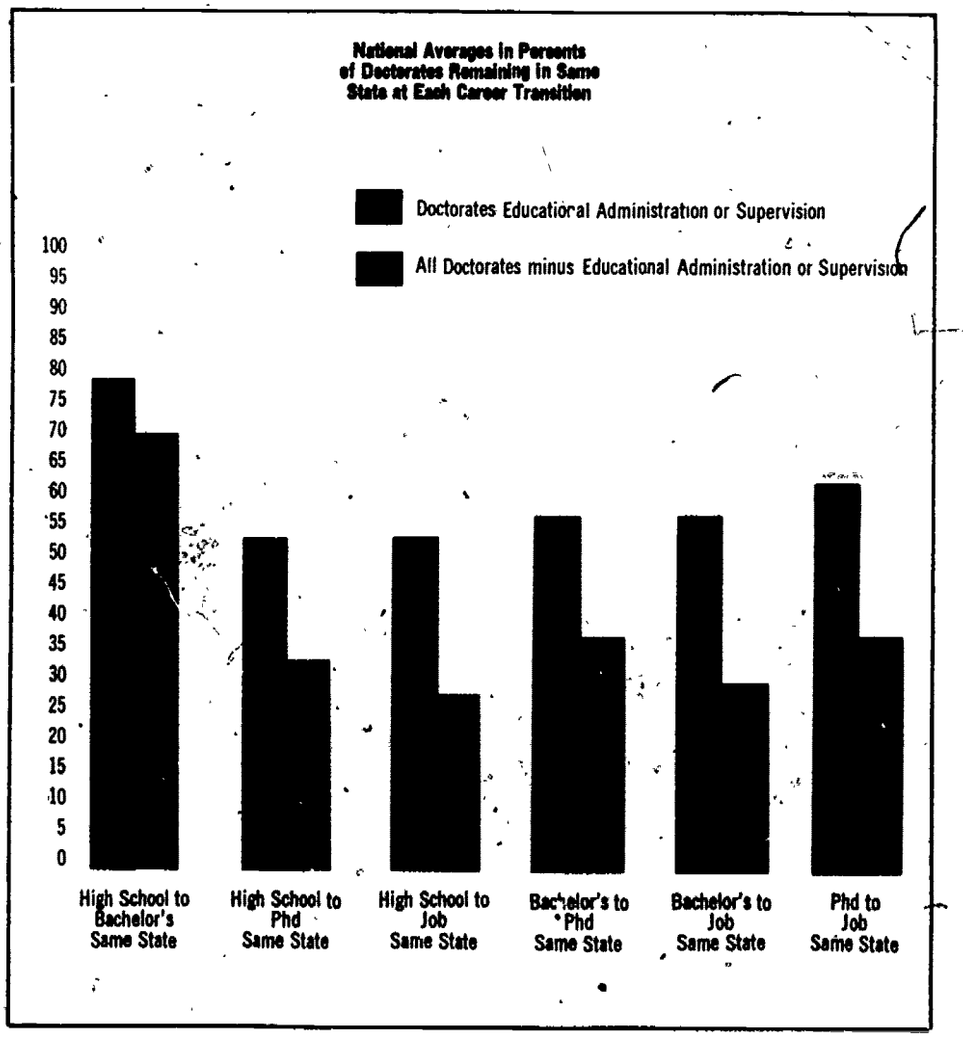
All doctorate recipients in the U. S. (excepting foreign students), numbering 109,071 doctorate degrees of which 8,521* were in educational administration and supervision, are included in this study. It is obvious after a brief look at this table that those having attained doctorates in educational administration and supervision are much more likely to remain in the same State at each of these career transitions than are those taking doctorates in other fields. The first career move measured from State of high school to State of bachelors reveals that both groups are considerably less mobile at this stage than they later become. But even at this first career move, the educational administration/supervision doctorates were more likely to remain in the same State (10 percent more did) than the others.

The transition from State of high school to State of doctorate reveals that a greater proportion of the doctorates, excepting those in educational administration and supervision, go to a different State for the doctorate than the State where they received their high school education. Only 31 percent were in the same State for doctoral study as for high school; whereas, 53 percent of the educational administration and supervision doctorates had both their high school and doctoral work in the same State. In fact, the same proportion of educational administration and supervision doctorates—53 percent—were found to have their first job following the doctorate in the same State as they had achieved their high school education, while only 26 percent of all other doctorates combined fell into this pattern.

* There is no agreement on the numbers of doctorates awarded annually. The National Academy of Sciences' figures which are collected from individuals tend to be higher than the U. S. Office of Education's which are supplied by the higher education institutions.

Looking at the geographic career movements from bachelors degree to doctorate and to job, again the educational administration and supervision doctorates lead the other doctorates in the proportion who are in the same State at each transition. Fifty-five percent remained in the same State where they received their bachelors to do the doctorate compared to 35 percent of all other doctorates who remained in the same State during this transition period. The same percentage—55—applies to doctorates in educational administration/supervision when comparing State of bachelors to State of first job following the doctorate. This figure compares to 29 percent for all the other doctorates who remained in the same State as their bachelors institution for their first job.

From the doctoral degree to first job, 61 percent of the educational administration/supervision doctorates remained in the same State while only 35 percent of all the other doctorates did so. The geographic mobility of the educational administration and supervision doctorates is thus considerably less than it is for doctorates in other fields. From the earliest to the latest career moves recorded—State of high school to State of first post doctoral job—the other doctorates have twice as much geographic mobility. It would appear that the educators are more local in comparison to their fellow doctorates.



Appendix B

A General Statement Concerning the Proposed New England Regional Office

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The program of the regional office to be established in Boston will focus on technology. Specifically the central concern of the program will be with technology in its relationship to decision-making in education. While we will cover with each group of participants most if not all of the broad range of issues and concerns suggested by this theme, in two respects the focus will be narrowed. In each respect the narrowing stems from the way we propose to use the word 'technology' and the term 'decision-making,' but as you will see, there is no reason to expect that the consequence of such usage will hamper the participants' study of the central theme.

Technology

We narrow the focus of the program first by taking the word 'technology' to mean general purpose electronic digital computers. Because technology embraces machines in general, it may seem unwarranted that we restrict ourselves to one particular machine, and yet because of what machines are, we gain rather than lose by concentrating on computing machines. Machines execute procedures, and each machine is the em-

bodiment of the procedure it executes. Conversely, a well-formed statement of a procedure *describes* the machine needed to carry out that procedure and, therefore, there is an intimate relationship between procedures and the machines that execute them. For this reason, thinking about technology means thinking about procedure.

When we substitute the computer for the apparently more general notion, technology, our ability to generalize is not damaged because a computer is a device whose job is to accept descriptions of other machines and to *imitate* the behavior of those machines. This description—the computer program—is at the same time an explicit statement of a procedure and the "blueprint" of the machine needed to carry it out, and therefore, whether or not we can get a computer to execute a given procedure depends primarily upon how well we understand the components of that procedure, and how imaginative we are in conceiving procedures in terms of the basic elements of which they are comprised. Centering our attention on a computer, therefore, has the advantage that we depict a machine in terms of such procedural statements and thus maintain a clearer attitude about the relation between machines and procedures specifically and, in the end, about technology in general.[1]

Naturally, concentration on computers will not exclude consideration of aspects of certain other technologies—cable television, for instance—but even here the focus will be upon the implications held by the wedding of these other technologies with the information processing capacities of computers.

Decision-Making

The second way we narrow the theme of the proposed program is to restrict our concern for decision-making to the process of deciding about *educational programs*. The intention here is to examine both the principal's role and the procedures available to him in the decision process relating to such aspects of his school's educational programs as assessment of needs, formulation of objectives and priorities, selection of programs, program management, and the analysis of outcomes.[2]

Now this restriction is not a device to exclude other areas of decision-making in schools—for instance, those which on their face might appear to be purely "administrative" decisions—but rather a device to focus our attention on the extent to which such decisions eventually relate to or otherwise affect the school's educational program. Thus decisions in such areas as facilities planning, resource utilization, budgeting, and organization and management will be included and will be viewed with respect to their impact upon the seemingly more program-directed decisions.

Program Structure

The program to be offered by the Boston regional office will be structured with respect to the general orientation presented in the two previous sections. Underlying the structure is the notion that to speak about technology and decision-making is to speak of neither technology nor decision-making separately. Instead it is to speak principally of the extent to which they impinge upon each other and the implications of this im-

[1] That technology is as much procedure as it is machinery is not a new idea. Consider, for instance, the definition proposed by the Presidential Commission on Instructional Technology:

> [Instructional technology] is a systematic way of designing, carrying out, and evaluating the total process of learning and teaching in terms of specific objectives, based on research in human learning and communication, and employing a combination of human and nonhuman resources to bring about more effective instruction. . . . This approach holds the key to the contribution technology can make to the advancement of education.

Committee on Education and Labor, "To Improve Learning." *A Report to The President and The Congress of The United States*, U. S. Government Printing Office, Washington, D.C., 1970, p. 19.

[2] One example of how such decisions may be more generally characterized is that due to Stufflebeam which identifies the following four types of decisions: planning decisions, structuring decisions, implementing decisions, and recycling decisions.

pingement upon the work of the schoolman. In a sense, therefore, it is the "and" that is to be the topic of conversation and study.

More concretely, the structure of the proposed program has three major components, each of which centers on an aspect of the relation between technology and educational decisions.

Decisions *due to* technology. Because society is the context within which schools function—being as they are, institutions of society—the goals of the schools come sooner or later to be affected by the trends, the concerns, and the prevailing forces in society. Consequently one important problem facing schoolmen today is posed by the question: "How does the presence of technology (computers) in society change what ought to happen in schools?" Put as an assertion, as society is altered by the presence of computers, education as preparation for life in society must reexamine and refashion its goals. Notice that this effect does not depend at all on whether or not schools *use* computers or have them on their premises.

The importance of this issue is suggested by the fact that many people have come to conjecture about the specifics of the influence upon educational goals exerted by the mere presence of computers in society. Among them one of the earliest thinkers to consider these effects is Donald Michael, who opens an article on the subject by stating, "Cybernation has an impact on the social context, and hence on the goals of education."[3] Later in this article he offers some specifics:

> Because cybernation will radically change the work-force composition and the purpose of work, education not only must assume the task of altering its goals and its techniques for dealing with work but also it must develop a radically different capability to educate for leisure. To the extent to which cybernation provides more productivity, it provides the opportunity for more leisure.[4]

What schoolmen must do, then, is "invent leisure roles, and then invent educative means for inculcating them in both the younger and the older people who will compose most of the working population." But, if leisure time is to be self-fulfilling, as Michael contends it must, then the schools have to find ways of helping students to develop the technique for the "cultivation of self."

While such critics of Michael's position as Charles Silberman argue with his conclusions, few people would deny the premise from which he starts. In our proposed program we will not defend Michael's position, and it is presented here to serve as an example only. Our concern will be to consider the positions taken by various authorities with respect to the effects upon educational goals of the presence of technology in society and to grapple with the *practical* and *immediate* consequences of these positions.

Decisions *about* technology. In no way is it controversial to assert that for some time computers have played a useful role in education. The compilation of school statistics, the scheduling of classes and the assignment of students, the production of pupil report cards, the scoring and norming of tests, the creation and updating of pupil cumulative records, and the maintenance of teacher personnel files are just some of the administrative chores being accomplished by computers. Moreover, such administrative applications of the computer have been joined, in recent years, by potentially even more useful applications in instruction and guidance. Increasingly students leave high school not only having heard of computers but, as well, being able to write computer programs to solve problems in mathematics or science, and no longer is it oracular to speak of computer-based college finding systems for use by students and their guidance counselors. Even when you discount the more ambitious, experimental—and sometimes poorly conceived—applications such as 'computer assisted instruction,' 'computer managed instruction,' 'school management information systems,' and 'programming

[3] Donald Michael. "Cybernation and Changing Goals in Education." In Donald Bushnell, Dwight Allen, and Sara Mitter, *The Computer in American Education*, John Wiley & Sons, New York, 1967, p. 3.

[4] *Ibid.*, p. 8.

planning, budgeting systems,' still the computer's role in education remains and continues to expand.

Yet with all of this, rarely has the schoolman thought of the computer as an educational facility comparable to his library, his television sets, and his language laboratory. Until recently schools lacked both the money and the competence to use the computer, and as a result, it has been such a scarce commodity on school campuses that to view it as an educational facility would have been irrelevant. No longer is this view irrelevant. Indeed certain recent events now make it essential that schoolmen begin to grapple with the problems and issues associated with the establishment of a computer facility within their schools.

Paramount among these recent events are the substantial decrease in the cost of small computer hardware coupled with the increase in community resistance to mounting expenditures for outside data processing services. Throughout the country, school systems have been receiving data processing services for some time, and they have considered the costs to be relatively small when compared to what it would have cost to do the job themselves. But the advent of the small computer has changed this picture. leading school boards and administrators to consider buying or leasing computers directly and doing their own data processing. A recent survey of New England school districts indicates that twenty-five percent of them spend between 20 and 100 thousand dollars a year on computing activities—excluding personnel costs—and fifty percent of them have yearly expenditures for computing greater than $10,000. It used to be that this was the range of the *monthly* expenditure required to rent a computer. Now, however, these schools find that computers are available within their budgets and, thus, for a fair number of school systems it has become quite reasonable to think of obtaining their own computer hardware.

But, naturally, the more reasonable it becomes for schools to establish computer facilities on their premises, the more crucial it is that schoolmen avoid the pitfalls associated a) with the evaluation and selection of hardware and software, and b) with the application of computer hardware and software within their educational programs. Because these two decision areas carry with them so many issues, so many options, and so many implications, often the schoolman is inadequately equipped to perform an adequate assessment. Yet the consequences of the wrong decision can be much worse than those of no decision at all. In light of the imminence of the creation of computer facilities in schools and the extent of the problems to face school administrators as a result, the proposed program will examine systematically the two general aspects of a school's decisions about computers.

Whether the concern is for the aspect of selection or of use of computers in schools, many difficult issues confront the school administrator as he attempts to assess meaningful alternatives to his present practice. For instance, one reasonable alternative states that were a school to take over from a service bureau the chores of its own data processing, the money saved would allow the school to broaden its use of the computer or extend it into other areas. But what about the headaches of administering its own computing center? or the frustrations of 'down-time' so characteristic of computers? or the heavy burdens of local software development? or the opportunity costs? or the distractions from other, worthwhile educational innovations in the school? Perhaps these are the true costs of such a reasonable alternative, and perhaps they become too great a price to pay. To find out, the school must carefully examine these questions.

Then there is the problem of student access to the computer. Should it be in *batch* mode, allowing large numbers of students, faculty, and staff to use the computer in their work? or should we acquire a *time-shared* computer, thereby limiting the users, yet increasing the opportunity for immediate turn-around, on-line debugging, and the use of interpretive computer languages? Are there educational reasons for the choice? Then, whatever the choice, how will administrative and instruction demands compete for computer time? What rules do we use to deal with conflicting demands? Is one com-

puter going to be enough? As you can see, this matter of settling on a computer facility well suited to the needs of a school is, at best, complex and often mystifying to the schoolman.

He cannot avoid these issues, however. Whatever the difficulties in these and other problems as those associated with training teachers to use computers or developing curricula and materials for instruction, he must face them, and it is our intention to provide the participants the opportunity and the setting with which to face these issues. Our concern will be with both the issues themselves and the procedures for addressing them.

Decisions *with* technology. Ideally, information is the link between computers and decisions about educational programs in that information is the output of one and the input of the other. One role of the computer in education, therefore, is as a tool for educational decision-making. Indeed, this role is potentially the most significant one computers can play in education since, with computers properly used, the quality of information readily available to schoolmen is substantially greater than is otherwise feasible. Because of this potential much of our effort will center on the computer as a device for the enhancement of educational decisions.

At present, such an application of computers in education is difficult to find, although the business community has long relied upon computers as a valuable tool in decision-making. Thus drawing heavily upon the experience of business, and utilizing specially-prepared, on-line computer systems tailored to educational program decisions, the proposed program will deal with the procedures and techniques of data access and analysis made possible by the computer. The participants will gain first-hand experience not only in program data assessment but also in such areas as computer-supported budgeting, resource assessment, planning, projecting, and to whatever extent reasonable, models can be constructed relating the school's input to student output. The concern here will be not only with the theory of information processing as a component of decision-making about educational programs, but as well, with "hands-on" experience and practice. Among the various computer programs to be made available to participants are ones relating to simulated budgeting and planning models, enrollment and staff projections, census data analysis, and staff and pupil personnel data retrieval and statistical summarization. These and similar systems will be used by participants in two modes: at first, individually, and then as components of an integrated management information system. As well there will be consideration of certain operating information systems in use in business and industry to determine their potential relevance to schools.

Additional topics will include

a) the consideration of some of the latest developments ir the application of computers in education such as Seymour Papert's LOGO system or the work of Marvin Minsky on getting machines to learn and to exhibit intelligence;

b) the investigation of the potential available when CATV and computers are combined as a new tool for community-based education. The new computing device developed by Sanders Associates that makes this wedding possible, along with their notion of distributive processing, will form the basis for this investigation in one of the cities in which they are presently experimenting;

c) the investigation of the use of computers in non-educational settings such as in hospitals and airlines to consider possible analogues to educational uses.

Aside from these and similar activities, it will be a major concern of the program that the participant become a literate reader and critic of the prevailing literature on computer applications to education. In one respect, this is the most ambitious goal of the program. Yet there is no doubt that without at least a beginning sense of the extent to which writings about computers are either well-founded or fraudulent, there can be little reason to expect that the schoolman's future decisions concerning computers and computing and their relation to educational programs will be properly fashioned.

Appendix C

CREDITS

Acting in an individual capacity and not representing their agencies or organizations the following persons kindly served as an advisory group to this study: Kenneth Buck, Secretary of the National School Boards Association, Council of Big Cities Boards of Education; Emerson Elliot, Deputy Chief, Human Resources Programs Division, Office of Management and Budget; Jean Flanigan, Assistant Director of the Research Division, National Education Association; Iris Garfield, Director, National Assessment, National Center Educational Statistics, U. S. Office of Education; Donald Dafoe, Executive Secretary of the Chief State School Officers (until June 1972); Lindsey Harmon, Director of Research, National Academy of Sciences; Owen Kiernan, Executive Secretary, National Association of Secondary School Principals; Rolf W. Larson, Director, National Council for Accreditation of Teacher Education; Justin Lewis, Study Director, National Science Foundation; John Lindia, Acting Deputy Associate Commissioner of the Bureau of Education Professions Development, U. S. Office of Education; Edward Pomeroy, Executive Secretary, American Association of Colleges for Teacher Education; Jack Sessions, Assistant Director, Department of Education, AFL-CIO; Gerald Sroufe, Executive Director, National Committee for the Support of Public Schools; Grant Venn, Associate Secretary, AASA and Director, National Academy of School Executives; Dustin Wilson, Jr., Chief, Educational Leadership Branch, Education Professions Development Bureau, U. S. Office of Education.

Participating in the development of data for the study were Lindsey Harmon and Marilyn Brus of the National Academy of Sciences who guided us in the extraction of information on doctorates in education from the data bank on doctorates. Daniel Griffiths, Dean of Education at New York University granted us the permission to institute a follow-up study on graduates of NYU which was conducted by Ann Chandler. Supervising the data runs on the Michigan principals was Professor K. George Pedersen of the University of Chicago. The American Council on Education assisted us in extracting data on student characteristics from their data bank on students. Vance Grant and Les Silverman of the National Center for Educational Statistics at the U. S. Office of Education provided us with statistics and technical assistance. Allen Ellis and Richard Willard of the New England School Development Council contributed advice and technical assistance to the study. James Farmer of Systems Research, Inc., developed a study on costs of education degrees in California; and David Kirby of the Faculty of Education, St. John's, Newfoundland, assisted on the analysis of local salary schedules. Professor John Pease and Barbara Hetrick of the Sociology Department at the University of Maryland critiqued the data on student characteristics. Oliver Gibson of the State University of New York, Buffalo, provided us with educational studies related to locals and cosmopolitans. Selma Mushkin of Georgetown University assisted with guidance to the overall study.

Susan Wagner gave form to the study with her editorial talents and Lois O'Neill provided the study with its final edit. Andrew Bornstein executed the design.

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Additional copies of this report may be obtained by writing:

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