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ABSTRACT

Some of the papers in this collection attempt to define equality of educational opportunity, while others present evidence that such equality is not being achieved. Also discussed are (1) the effects of a changing national economy on schools, (2) some political aspects of educational finance, (3) finance problems in urban schools, (4) legislation and litigation in school issues, (5) planning programing budgeting and management information systems, (6) school food services financing, (7) State support, (8) longrange planning, and (9) local budget problems. (Author/DE)

Fiscal Planning for Schools in Transition

CEF

NEA COMMITTEE ON EDUCATIONAL FINANCE

Proceedings of the Twelfth National Conference on School Finance

March 23, 24 and 25, 1969

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Contents

Foreword

IN ITS 12TH ANNUAL Conference on School Finance, the Committee on Educational Finance of the National Education Association went beyond the traditional concerns of school finance practitioners.

Some authors attempted a definition of equality of educational opportunity. Others presented evidence that equality of educational opportunity is not being achieved. One is left with a feeling that neither the end nor the means to achieve equal educational opportunity through finance plans are as clear as they once were to educators and to school finance practitioners. Agreement seems to exist only on the fact that the financing of schools is in transition. Revolt by students, teachers, parents, or taxpayers seems a possibility if reforms and restructuring are not extensive and immediate. The papers differ in proposed solutions and likely directions for the future.

The Committee on Educational Finance of the NEA presents these diverse views as a contribution toward understanding the diverse forces affecting school funding. The views expressed by the authors are their own and do not necessarily reflect the viewpoint or policy of the Committee or the NEA.

Once again papers of the winners of awards for doctoral dissertations in school finance are presented. The Committee wishes to express its appreciation to Dr. Forrest E. Connor, Executive Secretary of the American Association of School Administrators, and Dr. Glen Robinson, Assistant Executive Secretary for Research, NEA, who with the Chairman of the Committee on Educational Finance served as the committee of judges for the awards.

The Committee also expresses its appreciation to the staff of the Research Division who contributed to the Conference and the Proceedings: Joanne Bodley, Research Assistant; Gaye Baber Becker, Conference Coordinator; Beatrice C. Lee, Publications Editor; Wally Sliter, Chief, Copy Preparation; Louise Pfender, Noni Palmer, Ann Rossiili, Carol A. Milan, and Carolyn J. Turner, Secretaries. A special note of appreciation is extended to Eugene P. McLoone (formerly with the Research Division and now a professor in the Department of Economics, College of Business and Public Administration and the Department of Administration, Supervision, and Curriculum, College of Education, University of Maryland) who directed this Conference. Without the assistance of these staff members, and the program participants, the Committee could not accomplish its tasks.

William D. Firman, Chairman
NEA Committee on Educational
Finance, 1968-69

Greetings from the National Education Association

Glen Robinson
Assistant Executive Secretary for Research

IT IS MY PLEASURE to bring you greetings from the National Education Association and from President George Fischer and Executive Secretary Sam Lambert. As some of you recall, Dr. Lambert was part of the pioneering group that started the National School Finance Conference in 1957 and has taken part in many of the previous meetings. He is interested in what you will be doing here this year and sends to you his warmest and best wishes.

The program of the Committee on Educational Finance is one of NEA's most important activities. All the aspirations and ambitions for American education depend upon an adequate financial base for schools. The NEA Committee on Educational Finance has contributed to improving the climate for public support of schools. It has helped to increase public awareness of the crucial role played by school finance in American education. The Committee has helped stimulate growth of sophisticated scholarship and research in this field. Through the compilation and publication of research reports in cooperation with the NEA Research Division, it has established a center for disseminating information about educational finance. Perhaps the most important contribution of the Committee to the development of school finance is its sponsorship of this Annual Conference.

When this Conference was started by NEA 12 years ago, it was only a small discussion group of a few people interested in improving school support. Today, it is recognized as the major forum for discussion of both theory and practice in school finance, and the published Proceedings of the Conference have become major source books of school finance literature. NEA is pleased and proud of this growth. It is a source of great satisfaction to see the increasing number of persons who attend the Conference each year and the growing influence which this group has come to exercise.

NEA feels a close relationship with you. I know that you reciprocate that feeling. Last year a number of you inquired about becoming NEA members. This year it will be possible for those of you who wish to join NEA to do so right here. We have membership application blanks at the registration desk, and you can pick them up after this session or at any time during the Conference. We should like to extend to all of you who are not now NEA members a cordial invitation to join the NEA.

The Conference meets this year at a time of ferment of ideas about the future of educational finance to discuss problems related to "Schools

in Transition." One important problem you will be discussing is the set of current lawsuits which contend that certain state and local school finance plans violate the "equal protection" clause of the Fourteenth Amendment to the Constitution. NEA and its Committee on Educational Finance have a keen interest in the outcome of these cases, which could, I believe, have as great an impact on existing school finance and school district structure as the one-man-one-vote decision had in the political arena. During the past few months the Committee on Educational Finance has been following these cases closely and studying their implications. Last week, NEA in conjunction with three other national groups, entered an *amicus curiae* brief asking the Supreme Court of the United States to hear the arguments in support of equal treatment under school finance plans in the Illinois case of *McInnes v. Ogilvie.*

In this, as in other problems to be discussed at this Conference NEA has a strong interest in the ideas that you will be considering. As you begin this Conference, I am pleased to extend to you the greetings of the National Education Association and to wish you a successful and constructive meeting in discussing the financial problems of "Schools in Transition."

The Meaning of Commitment

Harold Taylor

I BEGIN WITH the opening lines of "The Campus on the Hill," a poem by William D. Snodgrass, from his book of 10 years ago, *Heart's Needle:*

> Tomorrow has broken out to-day:
> Riot in Algeria, in Cyprus, in Alabama;
> Aged in wrong, the empires are declining
> And China gathers, soundlessly, like evidence.
> What shall I say to the young on such a morning?

Nine years later, the campus is still on the hill, tomorrow is still breaking out today, and only the names of the places of rioting have changed, with more added to the list—Biafra, Beirut, Prague, Jordan, Vietnam, San Francisco, the Soviet border—while China has gone on gathering, soundlessly, like evidence, and every day we face the task of asking, What shall we say to the young on such a morning?

Somewhere in the middle of the 1960's the students and American society together reached the end of an era. At a certain point it became clear that the texture and quality of the national life had altered within itself, and in such a way that the institutions designed to support it—the universities, the schools, the government, the economic structure, the social agencies, the political system itself—had become incapable of responding to the deepest needs of its citizens. Before that point, it was possible for the old ways of life to continue while an American war went on and a social revolution gathered strength. America made continual proclamations of commitment and admonitions to herself as the bodies piled up and the violence grew. Reports were written, speeches were made, political leaders were murdered, research of every kind told the story of a confusion of commitments and a welter of contradictory purposes while the country entertained itself with sports festivals, along with filmed, televised, and written versions of the violence and social disorder it claimed to abhor.

Then something started to happen. The students and those they admired entered into a common perception of the size of the national failure and the enormity of possible disaster. The enemy was seen to be within; it was a moral complacency in the use of national power, a turning away from a reality which had lost its true meaning. It was then no longer possible to proclaim, to point, to denounce, to deplore, to stand slack-jawed while the evils multiplied. There had to be action of a large-minded and generous kind, and it began to be seen that if the field of action were not taken by

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those within the present institution of a democratic society, the institutions would be swept away or altered in such degree as to become unrecognizable in a democracy.

The students had become aware of the arithmetic of commitment. In a capitalist democracy, the question of who has the money and how it is spent is a basic testing point of the values of the society and its priorities. In a society which constantly measures itself by numbers and statistics, all the way from body counts of the dead on either side in its wars to lifetime batting averages in its baseball scores and grade-point averages in its high schools and colleges, a clear measure of its commitments can be given by what it does with its money.

Looking at it from this point of view, we count up the score and find that we have commited $70 to $90 billion a year and 33,000 American lives to a war which has been disastrous to our national and international life, that we have been seriously thinking about putting $50 to $100 billion into a futile anti-ballistic missile system which can only escalate the arms race while providing no security for upwards of 20 million American citizens subject to instant annihilation, that we are willing to invest $30 billion in a race to put a man on the moon before the Russians do, $10 billion to a supersonic transport which will carry the well-to-do at incredible rates of speed across the country and around the world to carry out missions of no great importance, while we cut the funds available for education, hold down teachers' salaries, reduce our foreign aid programs, refuse to invest in international programs even to the amount of the $16 million authorized for the International Education Act of 1966, and while the educational system falters for lack of funds, 20 million Americans remain below the poverty line, and 10 million of our people at such low nutritional levels that they are either at or below the starvation line.

These arithmetical facts have not been lost on the members of a new generation, two-thirds of whose members have been raised in comparative affluence, while the other third has been struggling in their black communities, on the Indian reservations, in the ghettos, white and black, rural and urban, to gain an economic and social opportunity guaranteed to them by the commitment of American democracy to a just society. That is what the student protest movement is about. The students have simply pointed out that if the commitment of this country to military and technological enterprises can be made so generously and lavishly, the United States, as the richest, most powerful, and resourceful nation-state in the world can spend its money and its human resources on making a society in which every human being has a chance to become what he is capable of becoming.

In this, the students are joined by a scattering of educators. Ralph Tyler has estimated that it will take an additional $6.5 billion a year of federal funds to deal adequately with elementary and secondary schools. Clark Kerr estimates that by 1976, it will take an additional $15 billion a year to cope with the needs of the colleges and universities. Yet all over the country, the present educational budgets are suffering from the attrition of poverty, with more and more citizens, governors, and state legislators looking for ways of reducing the taxes and sums for education, while

looking at television programs of men in orbit in outer space, athletes who are paid from $50,000 to $100,000 a year, and scenes of war in which the spending of $100 million a day is a common occurrence.

So much for the arithmetic of commitment. What about the philosophy?

Those presently alarmed at the vehemence and militancy of American student action should be reminded that the history of American higher education is the history of students who came into it and transformed it by what they did there. The faculty came into the system because the students were there to be taught. College presidents and trustees were in it because the faculty had to be assembled to teach, and buildings, grounds, and equipment had to be bought, money had to be raised. The character of the curriculum and how it was planned depended partly on the available knowledge and its division into appropriate patterns, partly on the purpose for which the college had been started, but mainly on the purposes and character of the student body attracted to it.

In the nineteenth century, changes in education came about when it became impossible to continue with the old ways of teaching and with the old curriculum, because the older ways had lost their power to educate the people for whom they were intended. The educators, therefore, lost control of student lives. The purposes of the students were not linked to the content of the curriculum, no matter what the purposes of the college as stated by its authorities. The students either could not or would not learn what they were told to; they would not behave according to plan. They rioted, demonstrated, signed petitions, threw rocks and tomatoes, or simply put up with it and retaliated by not learning. Or even worse, they went elsewhere.

For it is also true that the history of American education is not so much the story of institutions as the story of a particular breed of men and women who started institutions for students, for a variety of motives, to do a variety of things. Sometimes it was simply a question of finding a job by starting up an educational business of one's own. At others, it was to teach a religious faith, to advance the cause of science, or industry, a vocation or a profession. Whatever the motive, the colleges could not have begun if there had not been a sufficient number of students who were attracted to the purposes of the institution as advertised, and the institutions could not have continued if the students found no purpose in staying there.

Another way of saying this is to point out that students act as instruments which register automatically the character and needs of their society, and act as the testing point for the relevance of one or another kind of education to the society. The change in the middle years of the nineteenth century from the classical curriculum to the introduction of the sciences and other subjects was not merely a sign that the curriculum had fallen behind the available knowledge of the nineteenth century, but that the curriculum had become irrelevant to what the students intended to do with their education. The students would not learn it because they could not use it.

If colleges continued to offer only those subjects sanctified by cultural habit and tradition, they would either lose their students or create a crisis in morale among the ones they already

had. If colleges continued to demand particular standards of conduct in the students' personal, political, or social life in a society which was more open and free than the society inside the college or university, they inevitably found themselves contronted with direct challenges to their authority to maintain controls. The changes came from the challenges.

In the structure of American higher education—the earlier academies which became colleges, the land-grant universities, the colleges for women, the Negro colleges, the Catholic and Protestant colleges, the community colleges, the teachers colleges —the forms and patterns of the curriculum itself have been shaped more by the constituencies which the institutions have attracted than by a philosophy of education to which the institutions and their adherents gave institutional and cultural expression. By constituencies I mean not only the students. They are the center of an entire cluster of constituencies which revolve around them. These consist of their parents, the taxpayers, the legislators, the faculty, the administration, the employing agencies, the donors, the alumni, and, in a large sense, the public, which gives its tacit assent to a system in which public and private funds are encouraged to flow into the stream of education for the generations. The philosophy of education is formed by the demands of a democratic, pluralistic society, and by the tension between these demands and the response made to them by the educating community in the schools, colleges, and universities.

This is in fact the source of the enormous strength of the American system of higher education. It has kept the system in touch with its own society, again, through the necessity of dealing with the students who are its representatives. When education is planned from the top down, as it is in the European and English universities to which so many American university planners have given intellectual obeisance, it is bound to lose touch with the reality of the students' lives and what those lives contain and is then unable to connect its own purposes with the needs of the students it teaches. The centralized system of European higher education and its colonial counterparts in Asia, Africa, and Latin America give expression to the political and cultural system of a class society, not to the life-needs of new sections of the society among the middle and lower classes.

Something of this attitude toward a centralized intellectual and cultural, and therefore political, authority has entered the American system. It has come through the rise to power of the universities as autonomous social institutions, whose autonomy is compromised by the very source of their strength, that is, the direct connection between them and the existing centers of power in government, industry, and the technological community. The academic profession with its administrative apparatus not only controls the sources of manpower for operating the society, it controls the curriculum and the institutions through which the manpower is developed, and dictates the terms in which education is conducted, with an influence spreading downward as far as the kindergarten and elementary schools.

That is how universities lost touch with their students. In rising to their present degree of power, the academic profession and the universities were not carrying out a plan of centraliza-

tion consciously developed by their members to gain control of the society and its educational system. They were simply carrying out the task society had assigned to them—to create and distribute the knowledge needed by the social organism to make it function. Their method of creating, assembling, and distributing the knowledge was to band themselves together inside the universities in groups of experts in each of the departments and divisions of knowledge, and to hand on what they knew by lectures, textbooks, works of scholarship, and research. As far as students were concerned, the faculty assumed that they came to the university to receive knowledge from the experts, and that if they did not come for that, they had no business being there. Whatever might be the students' political, social, cultural, or personal interest or commitments, these were considered irrelevant to the primary reason for their attendance, which was to learn what was taught in the curriculum. The reason the American universities, colleges, and schools have not had serious trouble with their students until the recent past lies in the fact that they have been class institutions, including the public universities and even the public schools, which have now been caught in the act of subverting the lives of an entire sector of the lower classes. While controlling the flow of entrants into the privileges of the society, the colleges and universities have benefited from the fact that until now the lower classes, particularly the black community, have submitted unwittingly to that control, without knowledge enough to understand the nature and possibilities of their own situation. The children and the families of the poor and the black, lacking the educational, political, or even psychological means to mount a revolt, have submitted in the past to the controls of a society whose educational system has screened out the have-nots in favor of the haves.

This is not because a band of class-conscious white racists have built a national system of education designed to hold down the underprivileged. There are sections of the country, more than is commonly recognized, where this is the case. If it were not for the law, there would be many more. Other sections, mainly in the suburbs, develop their own educational enclaves which are in fact private schools to which tuition is paid and called local taxes, and have nothing to do with have-nots of any kind. But this is not the national intent nor is it claimed as national policy. In fact, the main struggle to achieve a democratic educational system is between the federal government and those in the separate communities and states who oppose it.

The American educational system has gradually evolved over the years from the intentions of a democratic society whose members have not faced the consequences of their own intentions, and whose educators have seldom thought of the intimate connection between education and social change. The universities and schools have simply grown to their present size and power by adapting to the needs of those with a political and economic constituency, and as new constituencies have arisen and the numbers within them have increased to an overwhelming size, the older patterns of educational and social thought have persisted until blown out of their place by social or economic dynamite.

It was Horace Mann who went to the center of that problem. "Educa-

tion, then," he said, in his classic American statement, "beyond all other devices of human origin, is the great equalizer of the conditions of men—the balance-wheel of the social machinery. I do not here mean that it so elevates the moral nature as to make men disdain and abhor the oppression of their fellow-men. This idea pertains to another of its attributes. But I mean that it gives each man the independence and the means by which he can resist the selfishness of other men. It does better than to disarm the poor of their hostility towards the rich: it prevents being poor." [1]

There is now a very large population of college students; the 6½ million of them compose 40 percent of all college-age American youth. Except for a half million, they are all middle- and upper-class whites, many of whose parents at one time were poor, and they have confirmed Horace Mann's prophecy. They have the independence and the means to resist the selfishness of other men; a minority among them have created the conditions under which a humanitarian movement has been set in motion. The concerned students, whether radical, liberal, moderate, or conservative, are seeking commitments which can give direction to their lives and meaning to their education.

What are the commitments they seek?

They are looking for ways in which educational reform can address itself to the problem of building a new society. Having found too little help from their elders, they are now forming their own community of the young, in tutoring in the ghettos, joining VISTA, the National Teacher Corps, the Peace Corps, in the free university movement, in student experimental colleges. In their own way, they are returning to that most original of American dates, the idea of the land-grant university. They want better education, not only for themselves, but for all the citizens. They want citizens' schools and people's colleges.

The land-grant idea was a radical philosophical principle. But it was so much a product of American experience, of the American temperament, and of the local American conditions at the time of its origin that any attempt to cite a philosophy which could be said to have directed its educational wisdom would be intellectually impossible. It did, of course, rely on populist sentiment, and it did express a bold educational theory. But the philosophy and the arguments to support it as congressional legislation in 1862 emerged from the American situation of the nineteenth century. The land-grant proposal did not furnish a coherent set of arguments which could be expressed in a philosophy until later on, after it had formulated its own meaning through experience in educational and social action. It found out what it was through discovering what it was doing.

Consider, for example, the use of land as a basis for the national support of universities to be administered by the states. Although the idea turned out very well, it was not produced as an educational or social concept, but by the fact that the political situation in the 1860's was one in which (a) it could be argued that what was being done for the children of the businessmen and the well-to-do should be done for the children of workers, farmers, and the common

[1] Mann, Horace. "Report for 1848." *Life and Works of Horace Mann.* Vol. IV. Boston: Lee and Shepard Publishers, 1891. p. 251.

man; and (b) that it could be done without increasing taxes or taking revenue away from business and industry, simply by giving away land, of which there was a great deal around, and letting the states make what use of it they could, for revenue and economic investment. Had the Morrill Act proposed a national tax to make its educational program possible, it would have died early.

Or consider the philosophy of service to all citizens which flowed from the land-grant conception and grew into the strongest social and economic instrument the universities of any country have ever had. The philosophy did not spring from the minds of intellectuals for use as an American doctrine. It grew from the particular nature of American social and economic expansion, which, given the elements of a capitalist liberal democracy, had to create its own kind of educational instruments if it were to be successful in its expansion.

If I had a choice as to how I would like to see an educational system developed—by educational plans linked to a clear social philosophy and made by intellectuals, or by starting with the needs of an expanding democratic society and making institutions to meet those needs as the society went along —I would unhesitatingly, gladly, enthusiastically, and irrevocably choose the latter. Having made that choice retroactively, I would unhesitatingly defend it and the educational consequences in America which have flowed from it, as a philosophy of education we were fortunate enough to have invented from the materials of the American experience. The nineteenth century debate was between the utilitarians in support of the practical functions of the university in serving its society, and those on the other side who supported the conception of the university as the sanctuary of scholars and the home of the disembodied intellect. The debate helped to resolve the question into its practical answers, and it made clear that the distinction itself was false. Unless the university could extend the range of its service to society by moving into the broader areas of scientific and scholarly research, and at the same time could reach out to the communities and their members to minister to the intellectual, cultural, and educational needs which existed there, it could do neither one with any great success.

One reason was that the citizens, if they were to support the public universities, had to be able to see what they were getting for their money. They had to believe in what *their* universities were doing, and it would be very hard indeed to convince the uneducated American citizen that he should pay for the education and research training of an elite of Americans who would use their education and intellectual privilege either for purposes exclusively their own or for running the country in ways which they, as elite, thought advisable. This is not anti-intellectualism on the part of the citizen. It is the natural response of the citizen in a democratic society whose institutions are conceived as servants to the people and not as agencies for expressing the will of an intelligentsia. The form of the polity produced the form of its education.

What seems to me to have now happened is that the primary insight of the American conception has slipped out of the minds of those who now conduct the contemporary debate. In any number of ways, it is of the highest degree of importance for America that controversies such as those devel-

oped in California over the present and future of higher education should have reached the stage they have in public visibility and public importance. It is a controversy about how American life should be lived and what shape the American future should take. The presence of Governor Reagan as the political symbol of American materialism and authoritarianism is as important as the presence of the student protest movement against it, since it makes clear the fundamental issue around which the most serious educational and political questions must be raised.

A controversy of this magnitude in one state is an educational factor in the politics of all states. Having worked its way from the Berkeley of 1964 toward some kind of resolution about the nature of the public obligation of the public university toward its students and its citizens, there is a kind of historical inevitability in the fact that the same kind of test has been put so clearly and forcefully in the public obligation of the private university in the case of Columbia University in 1968.

If the colleges and universities continue the present pace of their slow adaptation to the legitimate educational demands of the disadvantaged, black *and* white, they will find themselves outrun by events and changes over which they have no control. There are now forces within the mass democracy, below the level of public visibility in the past, which have begun to coalesce and to become highly visible through the instruments of the mass media. By the very act of organizing the black-power movement and using it to take political action for themselves, the members of the black community have created their own educational environment with its own intellectual and cultural style—a style of direct action and confrontation politics. Having been blocked from the regular educational system, and having found that large parts of that system are in any case irrelevant to their needs, the black activists have educated themselves through their life in the streets, through their rallies, demonstrations, speeches, churches, community groups, rent strikes, television watching, and the transister radio.

The example of Malcolm X's life and what he has written about it, the life of Martin Luther King and his speeches and television appearances, the speeches of Stokely Carmichael, the actions of Eldrige Cleaver and the Black Panthers, the manifestos and demands of the black student movement, the black comics, from Mabs Mobley to Flip Wilson and Dick Gregory—these are the teachers in an over-all educational environment in which black speakers at parents' meetings and protest rallies have replaced the role of white teachers and university professors. The classroom is the street. The curriculum is the whole culture; the arts of jazz, folk music, spirituals, church services inject themselves into life and replace the banality of art appreciation classes in schools and colleges with live performances of public arts which are saturated with political, social, and spiritual meaning.

Direct action and political organization provide for the black community and its growing number of young activists the content of a new kind of social knowledge drawn from experience, and a new political style springing from the oral tradition of those who never learned to read. If you can remember what the preacher said, you don't need to read it; if you can remember what was done to you and

your ancestors who have told you their stories, you can create your own literature by saying it, singing it, acting it while others write it down. The others, both black and white, will put it into their magazines and research reports, their television and radio programs, their musical comedies, rock records, interview programs, and films.

In this way, the black community has talked, acted, and organized around issues and demands rising from its own culture, creating its own intellectuals who start with a belief in themselves, without the handicap of having been educated through the stereotypes from the textbooks to explain the Negro to himself. Without formal education, the black community is free to make its own demands in its own terms, and if it has not learned to follow white rules of political and social behavior, it has learned instead how to teach the whites about the blacks, and how to teach the educators what the black community wants from its schools and colleges. The social science and humanities curriculum is thereby being reformed, mainly because the black students, their parents, and the black community have demanded the reform. They have insisted on a reinterpretation of the historical past and contemporary history to take account of the reality of Afro-American culture. In doing so, the black activists and their surrounding constituency have become catalysts for education and social change while rallying to their cause a younger generation of whites who see white society through their eyes and who find that they see more clearly that way.

There is therefore in the making a new movement, started by the younger generation, aided by forces deep within the society and the existence of federal funds, for a form of national service aimed directly at the problems of social change. The manpower for social change already exists in the American high school and the American colleges. What remains to be done is to provide a national economic and social framework in which the manpower can be put to work, with the colleges and universities acting as the administrative and intellectual centers for carrying out the program.

A plan for national service can begin on the campuses, not only with proposals for educational change in the service the young can presently give in conjunction with their college studies, but by the development of comprehensive plans and policies to be urged upon the government for alternatives in service to military conscription. Only one more step need be taken beyond the present situation —to form a national service corps for youth, with scholarships, fellowships, and stipends to match, containing in one concept the Peace Corps, the National Teacher Corps, VISTA, Job Opportunity Centers, Head Start, and all the others, with more besides—in which youth can serve not war but peace, not social status but social need. The autonomy of the present programs could be preserved, while the administration of the human services curricula and projects could be arranged by the colleges, with direct grants to qualified candidates in the same style as the GI Bill following World War II.

Although it does not appear on the surface, the volunteer movement linked to national service is an extension of the idea of land-grant education, defined not only as the idea of bringing to the citizens the education they need, but doing so by federal subsidy which leaves the educational programs in the hands of the colleges,

universities, and the students. It is also linked to the elective principle by the fact that the subsidy would be provided, as was the case with the veterans of World War II, directly to the students, who may then choose the institutions and the programs which they wish to enter. Because their education would then be linked to a form of community service, there would be a generous degree of latitude in the form their education will take. Part of what has been proposed by the Carnegie Commission on Higher Education in its 1968 report, *Quality and Equality*, can be converted to this concept. The report recommends a civilian GI Bill, the direct grants to students and a cost-of-education allowance to the colleges of their choice. A modification of the idea could provide for direct grants to students for work in the human services linked to college studies in the humanities, social sciences, and education.

When we look at our resources in human talent, we find that we have them in profusion. The energies of youth have already been revealed partly in the revolt against established authority and existing social evils, mainly in the initiative they have already taken for the reform of education and society. When we look at our human needs, we find a host of problems of a kind which can be solved only with the cooperation and support of the thousands and thousands of young Americans and their allies in the older generation.

What now remains is to match our needs with our resources and to invest our money and our energy in the people and their educational system. You who are here tonight are, among all others, those most knowledgeable in the use of American economic resources for the solution of American educational problems. You know how it can be done. You know that it must be done. The commitment which you seek on the part of others you already hold among yourselves. It is, therefore, a matter of deciding, through your deliberations at this conference, what can and should be said to the young on such mornings as follow such evenings as these, and which, day after day, go to make up the weeks, months, and years of struggle to use the world's resources for the benefit and welfare of mankind.

The Changing Economy and Its Implications for Schools: Education Costs, Tax Bases, and Government Support

John D. Hogan

AN IMPRESSION has taken hold among the general public that support of public education in the United States has at last attained some level of adequacy. Participation of the federal government in school finance, especially in metropolitan areas, is presumed to have brought this happy situation to pass. This viewpoint probably underlay the tendency of school bond issues and budgets to have tough sledding in many districts and for education to come off badly from the trade-off processes in which it competed for federal financial resources during this year of continued prosperity. We can lament this misunderstanding and try to set the facts straight; but we must recognize that the facts are difficult to package for general consumption, and that public impressions reflect attitudes as well as ignorance of facts.

Any inquiry into the sharing process that determines how financial resources will be used in the American public sector during 1969 encounters at once the stark reality of the Vietnam war. The war will for the third year require a greater outlay than the current expenditure on elementary and secondary education by federal, state, and local governments. No greater challenge to the financial cost of the war can be raised than that it has traded the cost of a fully equipped modern high school for the extermination of five to ten Vietcong.

Indirect effects of the war have further aggravated the problems of school finance. Interest on the enlarged federal debt caused by the war has increased the burden on the federal budget of fixed charges, categories of expenditure that are treated as priority claims in the budget process. High interest rates have led school districts to withdraw bond issues for school construction and to suffer defeat on a record proportion of those put to vote. Nor has the war-inspired temporary surtax on the federal income tax made the task of obtaining state and local funds for education any easier; the citizen who wishes to protest higher taxes turns on the one tax open to his direct influence and votes down the school levy. In choosing "guns and butter" we have not only overcommitted our resources but have forced a redistribution of resources within the public sector to the disadvantage

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of education and other non-military expenditures.

But for the Vietnam war, education would probably be receiving a larger share of public financial resources than it is. The war, however, can be made too much the whipping boy for education's financial bind. The principal categories of the education finance problem have not changed much during the past 20 years and remain faithfully descriptive today: the inadequate property tax base of local support, pre-emption of the income tax base by the federal government, Balkanization of the metropolitan area by government jurisdictions, and cost pressures arising from market forces that operate on teacher salaries. If the war were not claiming its lion-size share of public sector resources—even if the federal aids to the schools were double the prospective 1969 rate—education finance would still be troubled by long-standing unresolved problems.

The paradox is that the case for education has never been stronger. Education enjoys a good press, has the basic role in the war on poverty, and is credited with being the major source of growth thrust in the economy.[1] Motherhood and the home today have no more sacrosanct status than education. The education finance problem can be compared to a chronically ill patient who is kept working by palliatives that quiet his symptoms while his underlying malady lingers on. Our capacity to apply palliatives grows as the economy grows, but the underlying malady—because it reduces the leverage of new funds—continues to threaten achievement of support objectives.

Education Costs

Within the current expenditure category elementary and secondary school costs are related most directly to salaries, the factor constituting some four-fifths of current expenditure. On average, during the past 10 years, the annual increase for teachers' salaries has been 6 percent. With an annual pupil enrollment increase of about 3 percent and a quality improvement of perhaps 1 to 2 percent, current expenditure increases have averaged 16 percent annually, a rate sufficient to double the total in about seven years. Current expenditure per pupil in average daily membership (ADM) has increased at a rate of 8 percent.[2]

These numbers tell us something of the course education expenditure has taken over the decade past, but they conceal important aspects of education expenditure, too. The extreme variations among states, and among school districts within states, are subsumed in the averages. And the rates of increase reveal little about the level of education support achieved in states and districts where the expenditure was low at the beginning of the 1958-1968 period. In terms of the national average current expenditure per pupil in ADM, the range among states in 1968-69 extended from 43 percent be-

[1] Denison, Edward F. *The Sources of Economic Growth in the United States and the Alternatives Before Us.* Supplementary Paper No. 13. New York: Committee for Economic Development, 1962. p. 270. Credits education with 42 percent and advance of knowledge with 36 percent of the growth rate of 1929-1957 in real national income per employed person.

Denison, Edward F. *Why Growth Rates Differ.* Washington, D. C.: Brookings Institution, 1967. p. 299. Credits education with 22 percent and advance of knowledge with 34 percent of the growth rate of 1950-1962.

[2] National Education Association, Research Division. *Estimates of School Statistics, 1968-69.* Research Report 1968-R16. Washington, D. C.: the Association, 1968. 36 p.

low the average to 62 percent above.[3] An ominous tendency concealed in the over-all expenditure data is the distribution of expenditure between metropolitan area central cities and suburban areas; in 32 of 36 metropolitan areas studied, the central city current expenditure per pupil in ADM in 1964-65 was less than in the suburbs.[4] Moreover, the central city suburban gap is widening as the central city need for special education services intensifies.

The assignment of education expenditure to changes in pupils, prices, and quality factors accounts for the broad categories that "explain" costs. One of the categories, prices, dominates the other two; but the term *prices* requires some explanation. The chief price factor in education inputs is teacher salaries, a value that has risen at an annual rate of 6 percent during the 1958-1968 period. Behind this growth is the annual increase of salaries offered college graduates in all fields and the increasing number of career choices open to women as alternatives to teaching. To refer to this phenomenon as inflation acting on school budgets involves a misconstruction of the teacher salary issue. It would be more accurate to interpret teacher salary increases as a reduction in exploitation until market forces bring average salaries more nearly into line with other professions.

Pupil load data also conceal aspects of demand for education services. More school-age children are attending school, enrolling sooner, and staying longer. In the central cities, where the resources to finance additional pupil loads are deteriorating, the pressure is greatest. With birth rates having peaked in the late 1950's and now declining, increases in elementary enrollment may be negligible for the decade ahead and enrollment increases will decline at both high school and college levels. Some expectations have been raised that the education burden will be substantially lessened by this turn in the age profile.[5] But the central city demand for special education services to meet the needs of an expanding enrollment indicates that expenditure increases will not soon subside.

Quality is an elusive trait in education. The comprehensive New York State Quality Measurement Project has been under way for a decade and has yet to produce firm, unequivocal guidelines to quality of education output. In large part quality is a residual after prices and pupil loads have been netted from expenditure totals. With teacher education attainment and experience increasing, the 1 to 2 percent quality measure is an imputation that seems warranted. But the statistics indicate some developments that run counter to quality. Class size has been increasing in central cities, and teachers appear to be a declining proportion of the school professional staff as service specialists increase in number.

The Base of Support

The economic base of support, defined as the national income, shows every prospect of growing at a record rate during the next decade, surpassing projections considered optimistic a few years ago. A trillion dollar rate of Gross National Product will prob-

[3] *Ibid.*, p. 35.

[4] Advisory Commission on Intergovernmental Relations. *Fiscal Balance in the American Federal System.* Vol. 2, *Metropolitan Fiscal Disparities.* Washington, D. C.: Government Printing Office, October 1967. p. 65.

[5] Chase Manhattan Bank. "A Promising Decade in Education." *Business in Brief,* No. 82, October 1968.

ably be achieved late in 1970. Given the revenue response that all tax bases have demonstrated in the postwar period, we might conclude that education finance can look forward to a period of sufficiency. But education support depends upon many factors in addition to the economic base.

The most important determinant of education support is the ability of state and local governments to tap the economic base, a condition that depends more than anything else on the willingness of citizens to bear taxes levied on them for school support. In estimating the future course of this quality of citizen grace, we may err if we take the past as a trustworthy guide. The postwar period has seen a dramatic increase in state and local revenues—from $13 billion in 1946 to $102 billion in 1968—in large part from imposition of new taxes and increases in tax rates. It seems highly unlikely that these gains could be repeated during another two-decade period.

More than 90 percent of school revenues are raised from state and local sources despite the new programs that doubled revenues from the federal government in the 1965-66 school year. Since 1965 the local share has slowly declined to 51.9 percent for the 1968-69 school year, the state share declined, then increased to 40.9 percent, and the federal share—7.9 percent in 1965-66—has declined to 7.3 percent. The significance of these share trends is what they augur.

School districts are almost completely dependent upon property taxes for tax source income. In a period of sharply rising expenditure needs, property taxes, even under circumstances of increasing property values, are an undependable revenue source. Incorporation of property value increases into the tax base is a slow and unpopular process. State tax revenues (57.6 percent from sales taxes, 24.1 percent from income taxes) are more responsive than property taxes to changes in income, hence are more reliable tax sources to meet their share of expenditure increases as they occur. But state taxes, especially the income tax, are increasingly subject to revenue-reducing administrative provisions that erode tax productivity in the name of "tax simplification." [6] Moreover, states are under continuous pressure to show their hospitality to industry by keeping taxes low in relation to neighboring states. Twelve states have no personal income tax; and 10, no corporate income tax.

On the assumption that federal aid increases 75 percent on the 1966 base, projections of state and local government revenue and expenditure to 1970 and 1975 indicate that state and local governments in the aggregate will be able to finance their expenditure needs.[7] This over-all balance will give little comfort to the central cities and other pockets of revenue need such as school districts and institutions of higher learning.[8] The trends in revenue sources and expenditure needs are running against them.

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[6] Hogan, John D. "Revenue Productivity of State Income Taxes." *Proceedings of the Fifty-Ninth National Tax Conference.* Columbus, Ohio: National Tax Association, 1967. p. 414-15.

[7] Tax Foundation. *Fiscal Outlook for State and Local Government to 1975.* New York: the Foundation, 1966. 128 p.

[8] Mushkin, Selma J., and McLoone, Eugene. *Public Spending for Higher Education in 1970.* Research Memorandum 374. Chicago: Council of State Governments, 1965. 68 p.

Mushkin, Selma J. *Local School Expenditures, 1970 Projections.* Research Memorandum 382. Chicago: Council of State Governments, 1965. 84 p.

At the time of the federal government's entry into education finance on an increased basis in 1965 a concept of "fiscal federalism" was coined to describe the tripartite financial system from which state and local government would thenceforth benefit. To share with state governments the "fiscal surplus" produced by that world wonder, the federal revenue system, was considered not only fitting but necessary to the prosperity of the country. Federal grants had begun to bypass the states and go direct to cities, and, with the inexorable workings of *Baker v. Carr,* conservative roadblocks in the state legislature were crumbling. A new era in American fiscal relations was dawning. The curtain will go up on that era when the Vietnam burden is finally removed. Until then the future of "fiscal federalism" and education support will be shrouded in doubt.

Government Support

From a financial support viewpoint there can be little controversy over the question of increased federal participation in education finance. An argument can be made that the federal government is an unreliable source of funds in that it may build commitments beyond its fiscal capacity, as now, or that the automatic economic stabilizers in the federal system increase and decrease revenues contracyclically and, possibly, asynchronously with state and local needs. But the facts of federal revenue elasticity with respect to income, interstate migration of families, and state phobias about industrial climate make a strong case for substantial increases in the federal role. An equal share, with state and local governments, of the 1975 education expenditure estimate of $53 billion would be a modest objective for the federal government.

Other means of financial support that would better meet preferences for maximum local control can be designed. But the roadblocks to successful implementation of any such design are awesome. A pet scheme that I have nursed along since proposing it in New York 10 years ago is illustrative. The objective is to maintain education as a local function by preserving the community basis that so well fits education practices in such areas as curriculum flexibility, above-standard salary schedules, and involvement of teachers, parents, and social services in common tasks, but to create as well a basis for policy formulation with respect to activities that must be large scale; for example, levying a sales or income tax, borrowing money, purchasing supplies, and providing certain high-cost services such as education telecommunications. Only school districts have the capacity to organize so that these different activities—those hampered by scale and those benefited by scale—can coexist. School district boundary lines alone among government jurisdictions have proved sufficiently flexible to promote efficiency through reorganization. It is certainly feasible to extend the principle from a few districts to many.

A federation of school districts to achieve the benefits of large-scale economies yet retain community-level interaction for activities that are hampered by scale is a practical way to have our cake and eat it too. The federation would ideally be coterminous with metropolitan area boundaries and create a jurisdiction having some meaningful relation to the geographic locus of metropolitan lifeways—shopping, commuting, recreation, etc. From the viewpoint of financial sup-

port the federation should be empowered to levy a tax with high revenue productivity, i.e., an income or sales (surtax) tax.[9]

A modest flat-rate tax on income would appear to produce revenue gains for metropolitan school district federations sufficient to meet projected expenditures and maintain property taxes at current rates in relation to equalized (market) value, given the expanded federal support role assumed in the Committee for Economic Development, Council of State Governments, and other projections of state and local revenue. All of the existing administrative provisions designed to achieve equalized support for schools with needs/resource imbalances could be incorporated in such a plan. In terms of financial support the shift to a tax mix having greater income tax weight is vital; the finance objective is to create a base of support that will grow commensurate with needs.

[9] In this respect especially, the proposal differs from the ACIR recommendation that county and regional school property taxing districts be established. See: Advisory Commission on Intergovernmental Relations. *Fiscal Balance in the American Federal System.* Vol. 2, *Metropolitan Fiscal Disparities.* Washington, D. C.: Government Printing Office, October 1967. p. xxiv, recommendation 8.

Concluding Remarks

The order in which presentations to this Conference have proceeded is highly appropriate. Financial support is a compelling problem, on the one hand because social forces that challenge education practice are at work and on the other hand because the prevailing ethic, including education support mechanisms, has brought the disturbing forces to an activist posture. We are the victims of our own handiwork, frustrated in dealing adequately with emerging problems because of past policies. Education is well supported and well financed only where an atmosphere of problem-free calm rules. If education support depended only upon the economic base and its prospects, we could be sanguine about financing our needs. Unfortunately, a large segment of the population behaves as though some special immunity from the effects of ghetto problems had been granted them. Suburbia, as Avery Post describes it, "is a walk on the mild side. It is decency raging in the streets. It is structured blindness, deafness and dumbness." More than any other value we need to build the conviction that life today is lived on the outer ridge with everyone's security threatened while the ghetto's security is threatened.

Some Political Aspects of Educational Finance

Farris Bryant

WHEN I WAS INVITED to address this group of educational finance specialists, my initial reaction was to outline in some detail the educational finance recommendations adopted by the Advisory Commission on Intergovernmental Relations. On second thought I decided that this approach would be somewhat akin to carrying coals to Newcastle. In fact, it might be interpreted as a rather gratuitous exercise because our efforts in this field have been limited largely to translating some increasingly accepted concepts of equalization into suggested legislative language.[1]

Therefore, I have decided to concentrate on the political rather than the technical side of the educational finance equation. As one who has labored rather long in the public policy vineyard, I am increasingly concerned about the growing gap between what the experts say we must do and what the public is willing to accept. To put the issue more directly: There is a growing gap between what the educational finance experts say we must *spend* and what the public is willing to *buy*.

In this context, the men in the middle of this tug-of-war—the elected officials—are often disdainfully viewed as "compromisers" or at best the politicans are regarded as a necessary evil in our system of adversary politics.

In reality, to become a statesman, a politician must first become an educator; he must educate in order to provide policy leadership to the people of his city, state, or nation. On the one hand, our elected officials endeavor to convince an increasingly hostile public of the wisdom of buying our com-

[1] Shannon, John. "The Role of the State in Equalizing Educational Opportunity—An ACIR Legislative Proposal." *The Challenge of Change in School Finance.* Proceedings of the Tenth National Conference on School Finance Sponsored by the Committee on Educational Finance. Washington, D. C.: National Education Association, 1967. p. 31-47.

See also: Advisory Commission on Intergovernmental Relations. "Fiscal Measures for Equalizing Educational Opportunities for Economically and Socially Deprived Children." *1968 State Legislative Program of the Advisory Commission on Intergovernmental Relations.* M-35. Washington, D. C.: the Commission, September 1967. p. 248-58.

Advisory Commission on Intergovernmental Relations. *New Proposals for 1969, ACIR State Legislative Program.* M-39. Washington, D. C.: the Commission, June 1968. "Metropolitan Educational Authority," p. 202-1—202-5. "Property Tax Relief for Low-Income Families," p. 321-1—321-7. "Districts for Specialized Educational Facilities," p. 902-1—902-3.

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plicated Robin Hood-type plans for building greater equalization power into state foundation programs. On the other hand, they must attempt to educate the educators (ordinarily not a docile group) on the need to be more responsive to both public attitudes about education and to intergovernmental fiscal realities.

As one who has been in the political cross fire between those who propose new and better ways of spending public funds and those who are asked to finance those proposals, I think I know, and possibly understand, the role of the elected policy-maker as a mediator, compromiser, and educator.

We know that new ideas cannot readily be rammed down the public throat—it gags too easily.

We know what public service improvements are needed; we are even sure that we hear loud public demands for them. It is not by accident that political oratory plays up the nice things we will do when we are elected and plays down the costs.

But when we set out to do the things we promised—improve the quality of education, make sure that equal educational opportunities are available to all, assure that nobody goes hungry, provide clean air and water, keep the streets safe and facilitate the flow of traffic through them—and the experts present us with all kinds of neat organizational and financial plans to do those things, we find a widening gulf between us and our constituents. And if we want to serve in our democracy, we had better listen to the clamor that comes across that gulf.

Pick up any governor's State of the State message these days and you will see what I mean. He will start with a long list of "needs":

- The educators tell him more state aid is needed to keep up with rising teachers' salaries and to provide for absolutely essential enrichment.
- The welfare people—they are now "human resources" people—point to the growing case loads and rising cost of living.
- The cities need money—and so far most states have not been very responsive to their needs—to cope with their burgeoning problems in the face of onerous local tax burdens. They are getting some help from the federal government for housing and urban renewal, for mass transportation, for "safe streets," for water and sewage disposal, but it is far from enough.

So the governor adds up these needs for more spending and it comes to a staggering sum. Mind you, he and his budget staff have already gone over the departmental requests and they have tried to "cut out the fat." Still the extra amount is more than can come out of the current tax structure. Then comes the soul searching. How do we raise the new funds? Do we ask for an income tax? (12 states do not have one.) Do we raise income tax rates? (About 15 more states barely tap its potential.) Do we raise sales tax rates? (Only six states are still without a sales tax, and they are small ones.) Do we keep hitting the nuisance taxes (liquor, cigarettes, amusements, etc.)?

Increasingly these hard tax choices will be accompanied by an agonizing reappraisal of our present system of financing education. Because school costs bulk so large, the friends of public education will need all the help they can get from the public at large. This means, for example, that they will have to be far more attentive than they have been in the past to the growing public demand that the educational establishment produce sufficient information to enable the public to

evaluate the effectiveness of its school system. Moreover, from here on out, the champions of public education will have to be somewhat more solicitous about the fiscal needs of hard pressed cities and counties and the extraordinary burdens that the property tax imposes on low-income families.

Working with Cities and Counties

Let me elaborate first on the fact that *education is but one of many competitors for public funds despite its earlier "fair-haired" position in our state-local fiscal system.* Since the end of World War II expenditure for elementary and secondary education has grown faster than for any other public domestic function. Per-capita expenditure for local schools jumped almost 600 percent between 1946 and 1967. Compare this with some of the other functions: police and fire, about 300 percent; public welfare, less than 400 percent; health and hospitals, and highways, about 500 percent each.

Fiscal independence of most school systems from city and county governments has been a significant factor in their ability to tap the local tax base more readily than could noneducational programs. School officials generally can go directly to the taxpayers with their requests, and up to now at least the combination of educators and parents has been usually unbeatable. As a result, education has over the years been able to take a growing share of the property tax pie—from one-third in the 1940's to more than half today.

Because the massive and growing school pressure on the local property tax is forcing many cities and counties to the fiscal wall, the needs of these governmental units will also have to be taken into consideration by state legislators. Thus, requests for educational funds must be scrutinized alongside those for more police protection, health and welfare services, sanitation, and mass transit facilities. The scarcer resources become, the more attention has to be paid to their proper allocation among competing demands for governmental services. The *total* public needs of the state have to be considered, regardless of the governmental mix of responsibility for meeting them.

The practical effect of this situation will be to force the representatives of the public school systems, the cities, and the counties to work together if they expect to come up with a satisfactory state aid package.

Measuring Educational Achievement

Let me raise a second painful issue, that of measuring educational achievement. While it is true that it is not possible to measure all aspects of the educational process, some important elements can be measured. Let me recall what Francis Keppel, the very able former U. S. Commissioner of Education, said before the Council of State School Officers in 1965:

> The American people today expect more of American education than ever before. At such a time, isn't it clear to all of us as educators that what we don't know can hurt us?

Moreover, if the leaders of public education drag their feet on this issue, local school systems will increasingly turn to the private sector for help. It is my understanding that some school districts have already contracted with private firms, organizations that guarantee for a fixed amount to raise the reading level of every pupil by at least one grade.

There is increasing evidence that many of our educational leaders now realize that it is high time they develop a new report card, this one

for our school systems. At its recent meeting in Washington, the Educational Commission of the States tentatively agreed to assume responsibility for over-all management of a most significant project, the National Assessment of Education. I am reminded of the old cavalry saying, "If you don't want to get kicked by a mule, get up by its head."

Property Tax Relief

Property tax relief for low-income families stands out as the third area of concern. It is a sad commentary on the affluent society if it must force low-income householders through the property tax wringer in order to finance its schools and other local public services. It is no wonder that the elderly in particular are most avid in their opposition to the approval of new school bond issues and higher school tax rates.

Many years ago we in Florida recognzied the need to relieve homeowners of undue property tax burdens and at the same time to encourage home ownership. We, like a number of other states, did it by allowing every homestead a partial exemption (up to $5,000 in Florida) of assessed valuation. This kind of exemption is beneficial to those who can afford only low and moderate price homes.

Wisconsin has recently come up with a more complicated plan for providing tax relief. This state plan maximizes property tax relief for the poor while minimizing the drain on the state treasury.[2]

Let me close with my basic theme—the growing gap that separates what the educational experts say we must spend and what the public is willing to buy. In my estimation you can go a long way toward resolving this issue if you follow three policies:

1. *On the intergovernmental front*—work closely with the political leadership of cities and counties in developing a comprehensive approach to state and federal aid policies that considers the needs of education in conjunction with other governmental functions.

2. *On the expenditure side*—take the leadership in developing plans for evaluating pupil achievement and the over-all effectiveness of our public school systems.

3. *On the tax side*—support legislation that will shield low-income families from high property taxes.

A group of topnotch political scientists crystalized the issue we have been discussing today when they wrote:

> Governmental support for education is as highly political as support for any other governmental function. Levels of educational finance for public schools are not determined by the fiat of professional educators or the hopes and expectations of parents and teachers. State aid to local school districts . . . is the outcome of extended and highly complex political struggles which involve the interaction of group interests, parties, boards, commissioners, and departments of education, governors, legislative leaders and followers, courts, academic scribblers, opinion leaders in the mass media, and a host of lesser individuals and institutions.[3]

In an irreverent world in which it is claimed that God is dead and rebellion against established values and authorities is commonplace, it is not strange that educational assumptions also are challenged. I am not concerned about the challenge to God, but mortal institutions must meet their challengers or be overcome.

[2] See footnote 1.

[3] Bailey, Stephen K., and others. *Schoolmen and Politics: A Study of State Aid to Education in the Northeast.* Syracuse, N. Y.: Syracuse University Press, 1962. p. 103.

The Education Gap

Edward J. Steimel

As a noneducator standing before a group of educators, I feel like a fish out of water. Maybe I should say like the fish i the frying pan. But because by your invitation to me to speak here today you have concurred in one of my preachings, I can only express my gratitude to you. I have for some time maintained that in order to build the kind of public support for education that it must have, the public must be brought into the role of policy making far more than it has been in the past.

There once was a day not long ago when the South, its people, and its problems were looked upon as the extreme opposite of the big cities of the East, the North, or the West. Today, we see that the racial composition of the big city and the prime urban problems are identical to those of the South. Twenty, 30, 40, and even 50 percent Negro populations are common to most of the big cities just as they are common to the South.

So the solutions found to these problems in the South may well be the solutions that will work in the North. The reverse, of course, is true. Unfortunately none of us will solve these problems until we know their nature better. Most of us who think we understand their nature simply do not.

I might add on behalf of my part of the country, that it will not profit any of us to blame any one section of the nation or any generation for the problems we have today. That only furnishes us with an excuse for not doing the job we have before us.

I shall deal primarily with the education gap in America as a major factor in the urban crisis, because I seriously believe that it, more than anything else, is at the root of all the major problems of our urban areas.

Before I attempt to define what I consider to be the education gap in America, let me focus on the general goal of public education in America. Stated very briefly, it is to offer to every child in America an education up to the limit or optimum of his capacity. There is nothing wrong with that. It is certainly in keeping with the democratic nature of our public school system. It is one of the main reasons for the great achievements of our educational system. It has kept us on the track, at least to a degree. It has prevented us from preventing certain children from getting a good education, as

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systems of education in some nations do. It has led to the building of a greater stock of education in our entire population than any other national system would have permitted.

Our criticisms, therefore, may be centered on *how* we have gone about achieving our goal. Our criticisms are thus placed in the context of making a better system out of the best over-all system in the world. With all its faults, and it has many, I have to conclude that it is the best when viewed from all standpoints.

What Is the Problem?

If we have such a good system of education, what is the problem? The problem is many faceted, but at the root of it is that age-old problem of selfishness—or a nicer term self-interest—of all of us which if properly harnessed can be used to solve our problems in education. The great achievements of our whole economic system, which is based heavily on harnessed self-interest, prove that.

Now to put the rest of my discussion in perspective, let me ask you, who have most of the options available to anyone concerning the exact education you want for your children, if you would be willing to send your children to the worst school in your community?

Children do go to these schools. Are they less important than your children? Their parents have no options. Most of you in this audience have all the options. You have the option of neighborhood selection based upon the fact that a good school may be in a particular neighborhood; and if that school weakens, you can move to another neighborhood.

In recent years as court decisions have chipped away at our unequal systems of education for black vs. white, for affluent vs. poor, well-educated vs. illiterate, not just in the South but in major population centers outside the South, we have seen more and more middle- and upper-income whites move farther out into the suburbs or turn to private schools.

Will this destroy public education through a mass exodus of the children of the more affluent people to private schools? Will they withdraw their support? Many have said that will be the result. If this happens, are we prepared to accept its impact on our economy, on our society, and on our whole American system? Are we prepared for the greater stratification of our society that this will bring and perhaps the full undoing of our system of government?

The answer of course is *no*. But if we really mean it, we have a job cut out for us: to help find the myriad of answers needed to guide all those—our school officials, we hope, but our courts if necessary—who will be making the decisions on the fate of education in America.

These answers cannot be provided just by educators. Education is the business not just of schoolmen and students but also of everyone, particularly the leaders in our economy. They employ the choicest products of education. They become wealthy at it. Why, then, do they not have some worthwhile ideas on shaping educational policy?

May I strongly warn against calling on business and industry leaders only when you want money. Call on them to help shape educational policy and you will find them volunteering the money more readily.

Good businessmen know a good business deal. And public education is a good deal. Dr. Theodore Schultz of the University of Chicago makes good

sense when he shows the high economic return on dollars invested in education.[1] Business and industrial leaders understand his kind of reasoning. See that they know about Schultz. But more importantly see that you involve them in your local school decisions.

Different Aspects of the Education Gap

Now let us look at some of the gaps we, and others like us who preceded us, have permitted to develop because on occasion we have permitted our American *goal* in education to get subordinated to our personal *goal* in education for our *own* children.

There is first the achievement gap. This can be described in many ways, but probably one of the most dramatic ways is to look at the achievement gap between the white and the black populations. Negroes today are achieving approximately three to four years less education at the point of high-school graduation than are whites. This varies only by degree for other minorities, particularly Mexicans, Puerto Ricans, and Indians. It varies only by degree in the South as compared with the North. The Coleman report[2] shows this as do other studies.

How could it be otherwise when we have subjected the Negro to a hundred years or more of no schooling and to a hundred years of woefully inadequate schooling; and we shall be at least a hundred more years in mopping up the mess that we have made.

The quality of Negro public education in Louisiana, I dare say, is not atypical of that to be found across the South and, because the educational lags of one generation spill into each succeeding generation, the quality in other parts of the nation is severely dampened. Thus, a brief glimpse at Negro public education in Louisiana over the past half century or more may indicate the obstacles we face.

Louisiana had no public school system for Negroes worthy of the name until after World War II. In 1910, the school year for Negroes was 80 days, or four months, half of the length of the term for whites. The pupil-teacher ratio for Negroes was double that of whites. Negro teachers were paid one- third as much as whites and we spent one-fifth as many dollars per pupil for Negroes as for whites.

As recently as 1940, the average school term for Negroes was seven months compared with nine months for whites. The pupil-teacher ratio for Negroes was 35 to 1, compared with 23 to 1 for whites. The average Negro teacher was paid less than half as much as the white teacher, and we were spending less than one-third as much to educate a Negro pupil as we spent for whites. So it is no wonder that Negro education today is lacking.

Most Negro teachers in our public schools today got all or part of their education under such conditions. So, in spite of the fact that significant progress has been made in reducing these deficits the past 25 years, the legacy of the past is still with us.

Negro teachers coming off the assembly line today, largely from Negro colleges, though better prepared than

[1] Schultz, Theodore W. "Education and Economic Growth." *Social Forces Influencing American Education.* Sixtieth Yearbook of the National Society for the Study of Education, Part II. Chicago: University of Chicago Press, 1961. p. 46-88.

[2] Coleman, James S., and others. *Equality of Educational Opportunity.* U. S. Department of Health, Education, and Welfare, Office of Education. Washington, D. C.: Government Printing Office, 1966. 737 p.

10 years ago, are much less well prepared than white teachers, and these young Negro teachers will have 40 years ahead of them in our public school system.

The ignorant and illiterate parents of this generation are not capable of performing the vital parent role in the education of their children, and thus the children of this generation are doomed to lower achievement than otherwise.

Unless this cycle of perpetual retardation is broken, the gap can never be closed. You and I must find the way to break the cycle.

Fourteen years have gone by since the now famed Supreme Court desegregation decision. If we measure the lot of the masses of Negroes today, we see really little change. Sure, there is a black mayor in Cleveland and one in Gary, a black legislator in Georgia and one in Louisiana, and more Negroes are voting today. But the masses of Negroes are still uneducated, they are still most prominent among the unemployed, and they still live in ghettos from New York to Los Angeles.

Fourteen years since the Supreme Court decision, and in the 1967-68 school year, 14 percent of the Negro children in the entire South were enrolled in white schools. That is a rate of 1 percent per year. Will it take one hundred years? Perhaps not, but the resistance to school desegregation based upon many factors which has resulted in 86 percent of Negro children still attending all-Negro schools is at least a measure of the enormity of the problem of closing the *gap* in *achievement*. It may well take a hundred years to close the gap. It may take longer. But it will never be closed if we maintain largely separate schools and low-quality Negro colleges where academic standards are based on the low standards of the Negro high schools. For these colleges are turning out the teachers that populate most of the Negro classrooms today—the same teachers who will populate more and more white classrooms tomorrow. These Negro colleges have to be upgraded, or they must go.

Yet, merging these students with achievement differences of one to four grades between the white and the Negro and merging faculties with like disparities present enormous problems of maintaining quality at the level now enjoyed by the majority. We whites demand that.

Our job, therefore, it to see to it that quality is maintained on a level at least equal to that of the present *white* high school. It can be done through extensive use of the many innovations that have been found in recent years.

At PAR (Public Affairs Research Council of Louisiana, Inc.) we have just published a study which focuses on some of the steps that can be taken —in fact are already being taken by some school systems—to offset the otherwise deteriorating effect that might result in the quality level of our school systems as a result of merging a dual system into a single system of education.

There is also an achievement gap for children not now in school—children of age 6, age 5, age 4, age 3, age 2, and age 18 months. Children of these ages have largely not been a concern of the public school system in the past, but children of these ages do have a massive achievement gap. If an attack is not made at this level, yes, even down to age 18 months if necessary, we may well be missing the most fruitful potential in removing

the achievement gap between the minority and majority groups in our school systems. This achievement gap, of course, is most notable in children who come from culturally and socially deprived homes—poor folks, real poor folks, of any color.

Why did we have to wait for the Head Start program for 3- to 5-year-olds to show the public schools a major reason why Negroes do so poorly in school? Why did we have to wait so long to admit openly that Negroes are often a full grade behind white children as early as age 6 when they enter the first grade? Why did we have to wait so long to find out that no matter what is done after age 6, most Negroes who are already behind at that point will not ever catch up—especially if we don't change our approach? Why did we have to wait so long to learn that preschool work even as early as age 3 is too late for some children? Why did we have to wait so long to learn that even though these childen may be equal in achievement up to age 15 months, children in poverty may be expected to begin their intellectual retardation at that point?

Another question: Why have we not really tried to find out how much of this problem of achievement in children of one race compared with another is really environmental and how much of it is due to heredity?

We talk about it a lot and with great conviction, but with much more emotion than fact. Putnam [3] has written on it. So have many anthropologists and other scientists. Countering their arguments have been many social scientists, but the fact is that solid research on these differences among American ethnic and racial groups is sorely lacking. The neglect of two hundred or more years is with us, and we find it hard to separate this neglect from heredity. If there is a heredity factor, we should find out what it is so that we can work with it. I claim no answer here, but we should and can find the answer, and until we do, we shall not have the best in education.

Education Offerings Gap

There is also the gap between educational offerings afforded children of well-educated and affluent parents and children of the poor. Discrimination in the quality of schools and the quality of teachers is *not* just related to race. It is related to the economic well-being of children and their families. The richest neighborhoods have the best schools; they have the best teachers; they have the best and strongest curricula. They also have parents who have time to complain and the stamina to complain and friends higher up whom they can use to bring pressure for what they want. The poorest neighborhoods have none of these.

And the gap grows wider, unless you and I show the way to end *this kind of segregation.*

Flexibility or Adaptability Gap

Then there is the flexibility or adaptability gap. Our public educational system performs admirably for children of 90 to approximately 120 IQ whose parents are neither too

[3] Putnam, Carleton. *Race and Reason: A Yankee View.* Washington, D. C.: Public Affairs Press, 1961. 125 p.

Jenson, Arthur R. "How Much Can We Boost IQ and Scholastic Achievement?" *Harvard Educational Review* 39:1-123; Winter 1969.

Kogan, Jerome S., and others. "How Much Can We Boost IQ and Scholastic Achievement? A Discussion." *Harvard Educational Review* 39:273-356; Spring 1969.

stupid nor too smart and who provide reasonably well for their children.

Our system does a poor job, and in some cases no job at all, for children below 90 IQ, for children above 120 IQ, and especially above 140 IQ; for children of average IQ but whose parents are illiterate or poverty stricken; for children who do not fit the pattern of average or normal in intelligence, in appearance, or in habits that conform to those of most of us. These may be children of any race.

Our teachers simply are not prepared psychologically, nor from the standpoint of knowledge or aptitudes to work effectively with these children who deviate from the "average-income, average-IQ, white child" because our colleges of education have not *cared* enough to train teachers for this mission and our school boards have not *cared* enough to establish these programs fast enough because you and I have not *cared* enough.

Now we have to solve this problem because civil rights—when we in this country get through defining it—will not just mean Negro rights, but it will mean poor white people's rights, emotionally disturbed children's rights, cerebral palsy children's rights, mentally retarded children's rights. This bear is on the move and either we prepare a good program for all, or we drown in mediocrity.

Instructional Design Gap

There is further the instructional design gap both as to methods and as to curriculum. We already know how to make education a lot better than we have made it, but the pressure to implement these better methods has not been present to the extent that it is now. We have implemented ever so slowly because the educational establishment preferred not to move. Now there is pressure—the pressure, for example, of an unqualified Negro teacher standing before your child in a classroom and maybe standing in the way of his education. This is providing some of the *self-interest* impetus we have needed.

What should we teach? Should we teach the knowledge amassed before 1950, or should we teach the knowledge amassed since 1950? We are told that the latter body of knowledge is greater. We cannot teach both bodies of knowledge if we keep using the same dispensing machine.

We still have 9-month schools. Why? Why not a longer term to meet the requirements of the more diverse enrollments we face today. A longer term will offer the advantage of remedial programs for those who need it, enrichment programs for average achievers, and acceleration for fast achievers.

Why do we have 6-hour days? Why do we have school only in daytime? Why not night school?

Why teach mathematics beyond the eighth grade for everyone? How many people really use mathematics beyond the eighth-grade level? Could those two, three, or four years have been better spent learning something else, something about people, for example?

If the goal is to offer education to the limit of the ability of every child, why is our system so college-oriented and so little directed to vocational pursuits? Why is it right to use tax dollars to train students for the *vocation* of lawyer, doctor, architect, researcher, teacher, but not the same equivalent tax dollars for *vocations* of welder, carpenter, instrument specialist, chemical plant operator, and pipefitter?

Only one child in five finishes college. Four in five do not. We who are

among the one in five run the show, and I venture to suggest that we have cheated the others. The four in five are grossly under-prepared for productive lives. You and I are responsible in large measure, and you and I lose along with the others because of it.

From the standpoint of organizing for instruction there are several questions we should answer.

Why 12 grades when the pupils in the 12th grade today often have achievement ranges as much as eight grades apart?

Why any grades at all? Why not the nongraded school? Rather than being unstructured it has a more complex structure than even the 12-grade system. The point is that where there are great disparities in achievement—as will surely be the case with substantial desegregation—the ungraded school may prove to be far more adaptable to children at whatever achievement level they may be, and it permits them to move at their own pace. And it need not slow down the fast achiever.

Why not use flexible groupings of students based upon subject-matter skills? It is clear that students do not mature and achieve in all subject areas at the same pace. Why try to make them do it? Making this suggestion, I am fully cognizant of Judge J. Skelly Wight's adverse decision in 1967 [4] regarding ability groupings, but I am likewise convinced some such groupings as these will be necessary and that they can be utilized in a manner not to go counter to the court's ruling. Certainly in many instances this device is educationally sound. I know of no federal judges who really believe they have all the answers to this question.

[4] *Hobson v. Hansen*, 269 F. Supp. 401 (1967).

We know that some teachers are better than others. All children should get the benefits of that one fourth-grade reading teacher who is superb, not just 25 children out of the 100 fourth-graders. We must consider such approaches as team teaching which may well permit use of some of the teachers who do not meet the highest standards and do so without sacrificing quality. Team teaching permits specialization, joint curriculum planning among several teachers, and a superior teacher to offset a teacher who may not be so superior. Why have we used these approaches so little?

We must somehow find the answer to paying the superb teacher enough. We shall never get the share of talent in the public school we need unless we are able to match that market for talent. It is our estimate that to match that market for talent we shall have to be paying the average public-school teacher about $12,000 in 1975-76.

But the American people will never pay that superb teacher what she is worth so long as the worst teacher in the system is paid the same. We must find a better system for rewarding the exceptional teacher than promoting her to a supervisory post. We need her as a teacher in the classroom, and we must find a way to pay her more.

If you want to see a whole generation of the educational gap, the social gap, the cultural gap, and the economic gap telescoped before your eyes, as I have, let me suggest that you spend a day or two in Philadelphia visiting two or three of the Opportunities Industrialization Centers there. Or go to Detroit and visit a similar program. There you will find 20-year-olds and 35-year-olds who for one reason or another were lost by

the public schools. Illiterates get basic education; the unskilled are given skills, and they are given jobs. The fact that they are there and that they are learning under conditions far from ideal shows that they could have done so in their school-age years. Yet, the best of them have lost a generation, and many of them have lost much more. You and I are more responsible than they are.

The Research Gap

There is, moreover, the research gap. I believe most of us would agree that education is the most important secular enterprise in our society. Yet, surely it is one of the least researched. Thus, it has stagnated.

Bestor [5] ventured forth in this field, as did Conant [6] and a number of others, but they have been heavily resisted by the educational establishment, headquartered in the colleges of education, which have been guarding the status quo. Title IV of the Elementary and Secondary Education Act of 1965 is at least affording an opportunity toward filling this research void through creation of research laboratories throughout the country. Today there are some 20 such laboratories, and I have been privileged to serve on the board of the one covering the area of Louisiana and Texas ever since it was established some two and one-half years ago. Our laboratory is spending approximately $2.5 million this year alone principally studying the question: how to improve education for the Negro and for the Mexican-American.

These are major problems in this particular area of the country. If we find answers to these questions, they will be answers that will be of benefit to every metropolitan area of the United States. Fortunately, we believe these laboratories—established as nonprofit corporations with boards that must be representative of the society at large rather than representative only of educators—are bringing to bear in the area of research not just the views of educators but the views of employers of education as well. Top corporate executives serve on our board.

Fortunately, too, people from the colleges of education are finding that those outside their normal sphere of acquaintance have just as deep-seated an interest in education as they have, and the communications gap that has existed for so long is beginning to be closed. None of these laboratories can boast of any major accomplishments as yet, though we on the board of the Southwest Educational Development Laboratory believe we are on the verge of some discoveries. Yet, the fact that we are trying to find the answers through research will ultimately prove fruitful if we are willing to put our findings to the test.

We know that those industries, those activities in our society, that have made great progress through the generations have done so largely through research. Though it is long overdue, I hope we have finally arrived at the point where we are willing to pour money into research in education. I wish it were not necessary for the federal government to supply all

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[5] Bestor, Arthur E. *Educational Wasteland: The Retreat from Learning in Our Public Schools.* Urbana: University of Illinois Press, 1953. 226 p.

[6] Conant, James Bryant. *The Education of American Teachers.* New York: McGraw-Hill Book Co., 1963. 275 p.

Conant, James Bryant. *Shaping Educational Policy.* New York: McGraw-Hill Book Co., 1964. 139 p.

Conant, James Bryant. *The Comprehensive High School.* New York: McGraw-Hill Book Co., 1967. 95 p.

these funds, but if it cannot be obtained from other sources, I still am in favor of it because research is sorely needed in this field.

How Do We Close the Educational Gap?

How do we close the educational gap? We close it by re-examining everything about our system in terms of the question: Does this operation, this program, this practice, have anything about it that stands in the way of offering *every child* an opportunity to make optimum advancement?

Experimentation

We close it by massive experimentation, carried on with disadvantaged children of ages one through six and and with all forms of early childhood education centers, to learn at what age and under what conditions preschool education should be offered.

Involving Parents

We close it by establishing programs to involve the parents, even parents who are totally illiterate, in the school activities to show them how they may help their children get an education.

Strengthening Teacher Education Programs

We close it by strengthening teacher education programs for all teachers and by modernizing materials and methods used and by adapting them to the various children who will use them. For teachers of the disadvantaged, special training must be provided, and the teachers must be more carefully selected than they have been in the past. Very few white teachers today, for example, are equipped to deal adequately with Negro children, for they simply do not understand them. They have not been trained for this special kind of work, and there are virtually no programs to train teachers to work effectively with the disadvantaged.

Testing and Evaluation of Children

We close the education gap by massive testing and evaluation of the achievements, aptitudes, and potentials of all children from preschool through high school as a prerequisite to developing a program to truly sharpen the talents of all children to the fullest. I do not agree for one moment that tests will pass from the scene, nor that they should. We must, of course, recognize their limitations, but we must have tests to learn where the starting place is with each child.

Counseling for All Children

We close the education gap by providing counseling—competent counseling—for all children at all levels. Far too many parents, in fact most parents, are either too biased or too ignorant to guide their children without this kind of help.

Ungraded Schools

We close the instructional design gap by scrapping entirely the idea that every child should progress one grade each year. We should replace this with ungraded schools or flexible groupings based upon subject-matter achievement, or whatever such devices are best suited in a given setting, so as to permit children to progress as well as they are able.

Rewriting Instructional Materials

We close the education gap by rewriting instructional materials to match the particular language, cultural, and the social lags that exist among certain groups of children, especially the Negro and the Mexican-

American. On this point I might mention that the Southwest Educational Development Laboratory has a project funded primarily by the National Science Foundation over the next school year that will cost $137,000 to provide completely new instructional materials at the second, fifth, and seventh grades in three schools in Baton Rouge. One is in an all-Negro school, another in an all-white school, and another is a racially balanced school. The project includes the creation of 24 publications for just these three grades, half of them to aid the teachers. It involves a great deal of money on a very limited project, but it may be one of the cheapest and best investments we have ever made. It, too, may be a flop. But somewhere down the line, if we keep investing in this kind of venture, we shall find the answers we seek.

Comprehensive and Continuous Testing of Teachers

We close the educational gap further by comprehensive testing and evaluation of teachers so that we can identify the qualified and the unqualified, and by retraining tenure teachers who are found lacking in acceptable skills. Also we may need to provide a salary incentive to encourage such teachers to upgrade their preparation.

This may be the most expensive and most massive undertaking of all, but it is an absolute must. For example, in Louisiana, 39 percent of the pupils in the public schools are Negro. Thirty-seven percent of the teachers are Negro, and most of them had inferior educational opportunities. How would you suddenly replace so many teachers if you should find them lacking in qualifications, even if you could legally do so? Ninety-eight percent of these teachers in Louisiana have college degrees. A goodly number have master's degrees. Yet, a very high percentage could not pass the National Teachers Examination. Under faculty desegregation they will soon be teaching whites.

Summary

In summary, the education gap is most pronounced for blacks, for Mexican-Americans, for children of poor economic status, and for children of low and children of high IQ. The reasonable fruits of education are not being reaped by perhaps a quarter of our children who should not be overlooked. It will cost billions:

1. To establish programs of early childhood education
2. To train teachers to work with the disadvantaged
3. To retrain 15 to 20 percent of our entire teacher force
4. To update teacher training programs in our colleges of education
5. To establish innovations that match the peculiar talents of our vastly different children
6. And maybe to start training some children as early as one year old.

And it will cost more to do the research required to know what next to do in education. For even if we knew all the right ways to do it today, many of them would be wrong tomorrow.

But it will cost far more billions if we do not do it. It will cost billions in welfare for young people whose skills will soon be outmoded because of their lack of education. It will cost billions for young people who are unemployed. It will cost billions in burned cities. It will cost billions in the breakdown of law and order, and it may cost something more precious —a breakdown of our democracy.

Financing Public School in the 1970's

Erick L. Lindman

METHODS AND THEORIES of public school finance change from decade to decade, not so much because better solutions are found for old problems, but because the problem changes. Instructional emphases differ, new equipment becomes available, patterns of taxation change, and governmental responsibilities shift from one level to another. These changes profoundly affect ideas and methods used in financing public schools.

There is a danger that we will cling too long to methods that worked well in the past and fail to see the need for change. Or, sensing the need for change, we may lack the inventive talent needed to design a new system suitable for the broader instructional program in its new socioeconomic context.

There are many ways to view recent educational change. For the purpose of this discussion, it is appropriate to concentrate upon those changes which have a direct and significant bearing upon the problem and methods of public school finance. These are (a) the more active role of the federal government in education, (b) the changing concept of equal educational opportunity, and (c) the growth of program-related grants in aid. Each of these has profound implications for financing education during the decade ahead.

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The More Active Role of the Federal Government

Less than a decade ago, when we spoke of the school finance partnership, we referred to two partners—the state and the local school district. Moreover, we usually meant the jointly financed foundation program. Now there are three active partners, and a clarification of the role of the new partner is essential.

Only a few years ago, *interstate equalization of public-school resources* was the role which nearly all educational leaders would assign to the federal government. This role called for general support for public schools granting greater amounts per pupil to low-wealth states with virtually no federal direction over the expenditure of the granted funds.

This concept of the federal role was based upon a historical distrust of the concentration of power, whether political, religious, or economic, or the power to determine how children should be educated. In the United States, where diversity and the free market place of ideas are the

dominant ingredients of our educational system, national controls seemed wholly inappropriate.

Moreover, under local control of education many communities developed excellent school systems. Distinguished citizens accepted positions on local school boards, and local property taxpayers contributed toward the increasing school budget with remarkable generosity. New types of educational programs were pioneered in the cities. All this happened under state and local control of education.

There were, to be sure, inadequate schools in many communities. In most cases these inadequacies could be traced to deficiencies in the local school tax base. The assessed valuation of taxable property per pupil was so low in some communities that school tax rates, far above the average, failed to provide sufficient funds for even a minimum program.

To remedy this deficiency, the states invented new state-aid systems which provided greater amounts of state support per pupil to the low-wealth districts. Along with the effort to improve the financial support for public schools came increased state supervision and effort to consolidate schools into larger and more efficient school administrative units.

But progress was spotty. Some states made great progress; others lagged far behind. Comparisons among the states revealed shocking differences in the level of education of its citizens. During World War II and during the Korean War, the number of young men who were unacceptable for military service because of educational deficiencies was intolerably great in some states.

Again, a careful examination of the facts revealed that most of the states with inadequate schools were also the states in which the per-capita income was substantially below the national average. In general, the people in those states were making as great an effort to finance their schools as were people in other states. They were devoting as large a percentage of their income to the support of schools, but the funds available to the schools were grossly inadequate.

These facts indicated an appropriate role for the federal government: It should provide general support for public schools without federal control, granting larger amounts to low-wealth states, precisely as state governments had done for local school districts. The assignment of this role to the federal government was based upon the assumption that the causes of inadequate schools are basically fiscal and that state and local school leadership that will make wise choices in the use of additional funds exists or can be found.

Although the federal role is strongly supported by educators, it has not been accepted by the U.S. Congress. Instead, during recent years, new federal legislation has emphasized the *stimulation role.* In this role, the federal government imitated private foundations and granted funds for educational research and development and for temporary support of innovative programs.

Federal emphasis upon stimulation of new innovative programs reflected a national concern for change and, it was hoped, improvement in public-school programs and procedures. The need for improvement was apparent to everyone, and the approach seemed appropriate to most.

Small temporary grants under scores of different federal grant programs were offered to local school systems and university researchers. Many promis-

ing ideas were proposed. Some of them have contributed to the improvement of education; others were discontinued and forgotten when the grant was terminated. Some of them no doubt lack merit and should be discontinued; some have merit but have been dropped because funds for their continous support are lacking. This suggests a third role for the federal government—the continous support of educational programs of special interest to the federal government. Instead of merely stimulating the initiation of a new program and then withdrawing the federal contribution, leaving the increased burden upon the local property taxpayer, the federal government would provide continuous support for worthy supplemental educational programs. Federal grants for vocational education and for compensatory education illustrate this federal purpose. But even for these programs the federal contribution is relatively small in relation to their costs.

If the continuous support of selected supplemental educational programs of special interest to the federal government is an accepted federal role, the allocation procedures need to be reexamined. Techniques suitable for stimulation purposes are not appropriate for continuous support purposes. For continuous support, the total cost of each program must be ascertained along with the capacity of states and localities to contribute. On the basis of this information it should be possible to develop a variable percentage grant plan which would be effective. Or perhaps the programs should be operated on a contract-for-services-rendered basis.

Regardless of the grant-in-aid technique which is ultimately accepted, the distinction between methods appropriate for temporary stimulation purposes and those appropriate for continuous support purposes should be carefully considered. Not only are different allocation formulas needed, but also the administrative roles of the three levels of government should reflect the different federal purpose.

New Concepts of Equal Educational Opportunity

For more than a quarter of a century, an accepted purpose of state school support has been equalization of educational opportunity. To be sure, this effort has been conducted in the political arena where fund limitations and conflicting interests have produced compromises with the ideal. Presumably, this situation will not change.

Despite these realities, a clearer definition of equal educational opportunity is needed. Several possible definitions come to mind. Some of these are:

1. *Equal educational opportunity is achieved if all students are exposed to identical educational programs.* Although the word *equal* suggests *identical* programs, this definition must be rejected. No one would suggest that equal medical service implies the same medical treatment for all patients. Similarly, educational treatments must reflect the needs and talents of students.

2. *Equal educational opportunity is achieved if all schools serving the same grade levels expend the same amount per pupil each year for current purposes exclusive of pupil transportation.* This definition has been used for the development of most foundation programs throughout the United States. It is inadequate because it fails to recognize unavoidable cost differences encountered in different school districts for different types of

students. Suitable education for physically handicapped children, for vocational students, for students with special talents, and for students in need of compensatory education do not cost the same.

3. *Equal educational opportunity is achieved if all schools serving the same grade levels have equal numbers of pupils per professional staff member and professional staff members are paid in accordance with a uniform salary schedule.* This definition is essentially a refinement of the second definition and is substantially achieved within the boundaries of school districts. Yet we are well aware of the limitations of this definition. Even if the racial composition of schools were "balanced," there would still be differences in resources needed to provide suitable education for different students.

4. *Equal educational opportunity is achieved if state funds are allocated among schools so as to provide additional teaching resources for pupils whose achievement test scores are substantially below established norms.* This definition reflects the growing concern for compensatory and remedial education. It suggests that equality of educational opportunity should be measured by student performance. Such a goal could lead to neglect of students with special talents.

5. *Equal educational opportunity is achieved if all students have equal access to educational programs suited to their needs and talents.* Although this definition is the most difficult to implement, it must guide educational planning in the years ahead. The other definitions have been useful in the past, but they fall short of an acceptable ideal for American education.

If the fifth definition is accepted, the school finance plan must provide for greater variation of instructional programs within and among school systems. Most of the foundation programs we have developed fail to provide adequately for needed program variation. Moreover, it is not likely that the foundation program concept can provide the required flexibility. For this reason, the foundation program must be supplemented by carefully designed supplemental aids. But these supplemental grants in aid must be carefully designed so that their relationship to the basic program is clear. In general, school finance practice has not developed satisfactory methods for relating categorical grants in aid to the basic foundation program.

Program Related Grants in Aid

In the development of systems for financing public schools during the decade ahead, program related grants in aid will play a more prominent role. In the past, special or categorical aids have been regarded as necessary evils by most school administrators because of the constraints they place on the budgetary process and because of their burdensome administrative concomitants.

Appropriating agencies, however, like their clarity of purpose. Unlike general support, categorical aids seem to assure legislators that for a relatively small appropriation, substantial program improvement will be achieved. For this reason categorical aids tend to proliferate.

The problem, then, is to retain their clarity of purpose and avoid their administrative constraints and burdens. This can be achieved by consolidating existing categorical aids into fewer programs with broader purposes.

Moreover, the public-school chart of accounts should be program oriented. Direct expenditures for well-

established continuing supplemental programs, such as vocational education, and special education, should be segregated in the basic public-school accounting system. This change would provide essential information concerning program costs and would facilitate the evaluation process.

With this information, it should be possible to develop techniques for relating categorical supplemental aids to the basic foundation program. Moreover, proper emphasis upon the extra costs of supplemental programs should go a long way toward solving the school finance problem of large cities. This emphasis, along with appropriate recognition of the municipal overburden when the local taxpaying capacity of a city school system is determined, should lead to a solution of the problem of financing schools in the urban centers.

In the decade ahead there will be more emphasis upon evaluation of school programs. For specially aided supplemental programs, the evaluation process will take on a new significance. While the basic program is subject to modification and improvement, it cannot be terminated. But if a specially aided supplemental program is not producing results in a local school system, the aid for such program may well be discontinued.

In the past, "process standards" have been established in an effort to assure quality. For example, to be eligible for state aid for special education, school districts are often required to employ a teacher with special training and maintain a prescribed small class size. In the future, evidence concerning "program accomplishments" may replace "process standards" in determining whether or not state aid for the program is continued.

Thus, the concepts of program budgeting, and cost-effectiveness may become an important element in school support systems of the 1970's, requiring new techniques and procedures.

This brief look into the future indicates the nature of the problems of financing public schools in the decade ahead. It suggests some approaches to solving the problem. But the formidable task of connecting existing state and federal school support laws into viable programs for the 1970's remains to be done.

The Judicial Assault on State School Aid Laws

August W. Steinhilber

ONE OF THE MOST significant constitutional issues involving education since the Supreme Court of the United States ruled on *Brown v. Board of Education* (347 U.S. 483 (1954)) is being litigated in our courts. That issue, stated in simple terms, questions whether a state, through its structure of school finance laws, should be permitted to allow unequal support of education within its boundaries. An increasing number of law suits have been filed attacking state school aid provisions as discriminatory, unreasonable, irrelevant to educational needs, and thus in violation of the Fourteenth Amendment of the Constitution of the United States.

The first suit was filed by the Detroit School District just over one year ago, February 2, 1968. Similar suits were instituted in Chicago (*McInnis v. Ogilvie*); Los Angeles (*Serrano v. Priest*); San Antonio (*Rodriguez v. San Antonio Independent School District*); Bath County, Virginia (*Burruss v. Wilkerson*); and San Luis Obispo County, California (*Silva v. Atascadero Unified School District*); to mention a few.[1] While the names of the cases are not that relevant for discussion purposes, the issues are. Rather than describe each case in detail, I shall review the legal issues involved and mention a few of the particular facts.

At the outset, one further ground rule. I will make one important omission from the discussion of legal issues, that related to court jurisdiction, including procedural issues. While these procedural matters are important to the lawyers involved in the litigations, and some cases may be dismissed for procedural reasons, I firmly believe that there is enough precedent to grant jurisdiction if the Supreme Court of the United States can be convinced of the importance of the substance of the cases.

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[1] Editor's note: At press time these cases were in various stages of litigation. The Supreme Court of the United States affirmed the judgment of the Federal District Court in *McInnis v. Ogilvie* (293 F. Supp. 327 (1968) on March 24, 1969 (37 Law Week 3354)). The Federal District Court denied the relief requested in *Burruss v. Wilkerson* (— F. Supp. —, May 23, 1969). The Detroit case is scheduled to be heard in the fall in state courts of Michigan. The California cases have been appealed from an initial adverse decision. Also, several other places are investigating or have initiated suits.

Constitutional Setting

The Fourteenth Amendment reads in part, "(N)or shall any state . . . deny to any person within its jurisdiction the equal protection of the laws." This, the equal protection clause, forbids all invidious discrimination and requires equal treatment of persons in similar circumstances. States may not arbitrarily treat people differently under their laws. As the Supreme Court said in *Barbier v. Connolly* (113 U.S. 27 at 31 (1885)):

> Equal protection and security should be given to all under like circumstances in the enjoyment of their personal and civil rights; that all persons should be equally entitled to pursue their happiness and acquire and enjoy property; that they should have like access to the courts of the country for the protection of their persons and property, the prevention and redress of wrongs, and the enforcement of contracts; that no impediment should be interposed to the pursuits of anyone except as applied to the same pursuits by others under like circumstances; that no greater burdens should be laid upon one than are laid upon others in the same calling and condition.

This prohibition applies only to state action. State action does include any agency of the state be it judicial, legislative, or executive and any instrumentality of the state. A state cannot avoid the prohibition by transferring or delegating its responsibility to a private body. The equal protection clause does not require absolutely identical treatment for all; it does permit reasonable classification within the law. Once again, using the court's words, the classification "must always rest upon some difference which bears a reasonable and just relation to the act in respect to which the classification is proposed, and can never be made arbitrarily and without any such basis" (*Gulf, Colorado and Santa Fe Railway Company v. Ellis,* 165 U.S. 150 at 155 (1897)).

Thus, a state, having undertaken a responsibility, must treat all alike or justify as reasonable any classification system which treats individuals differently.

State Action

There can be no doubt that the states have undertaken the education function and that all states have constitutional provisions relating to the establishment of a system of public education. All states provide state financial assistance in the support of public education. Only three states do not require school attendance by children and of those three, two make compulsory attendance a matter of local option. The concomitant requirements placed on the local school district are the state laws requiring the local school district to maintain and operate a school for a specific period of time. Forty-five states have such a requirement, the usual minimum statutory school term being 180 days, found in 32 states. Many state aid formulas contain additional provisions pertaining to the school term.

What is many times forgotten in the discussion of state responsibility for education is that school districts themselves are subdivisions and creatures of the state. They are as much a state agency as the state department of education. School facilities, although paid for out of local taxes, are the property of the state and ultimate control of the property rests with the legislature. A state legislature can create, alter, or abolish a school district as it deems fit. There can be no question that our system of public education falls within the definition of state action; in fact, education may be something much more—a state responsibility.

Specific Arguments

The assaults on state educational aid laws question the reasonableness of such laws which permit the quality of education a child receives to be basically dependent upon the property values within the school district where that child lives. Does geography or the wealth of a particular school district whose existence, you recall, can be changed at the will of the legislature bear any reasonable relationship to educational needs? Should pupils living in one district have great material advantages over the children in another when the educational needs are the same, or given a more severe test, when the educational needs of the second group are greater?

When one compares either the 1964-65 per-capita or per-pupil expenditures of the central cities with areas outside those cities, the disparity is striking. Los Angeles: central city, $424 per pupil, outside, $654 per pupil; Chicago, $433 and $578; Detroit, $454 and $539; San Francisco, $565 and $758; St. Louis, $411 and $594; Newark, $515 and $619; and Cleveland, $433 and $609.[2]

The taxable property behind each pupil is likewise striking. In Illinois it varies between $3,000 and $114,000; in Michigan, between $1,300 and $53,000; in California, between $3,700 and $306,000.

If voting rights cannot be conditioned on wealth, as the Supreme Court ruled in striking down state poll taxes (*Harper v. Virginia Board of Elections,* 383 U.S. 663 (1966)), how can education? If the relative value of a person's vote cannot be conditioned on where he lives (*Baker v. Carr,* 369 U.S. 186 (1962)), how can his education be so conditioned?

Without trying each case, some of the ligitation does highlight the disparity to which I refer.

In the San Luis Obispo case, the plaintiffs pointed out that the assessed valuation in Beverly Hills is $94,000 per elementary-school child while in the Atascadero school district it is but $15,000. Furthermore, Beverly Hills property is taxed at a rate 25 percent lower than Atascadero yet raises more revenue per pupil ($575 as compared with $88). Yet the state provides in state aid virtually the same amount per pupil to each school district.

In the San Antonio litigation, it was pointed out that the people in Englewood Independent School District have a lower per-capita income, a lower mean income, a lower family income, and a lower per-pupil expenditure than surrounding school districts, yet their tax rate is not lower and their education system is poorly financed.

A case arising in Florida, although unique in facts, raises the same issues.[3] A Florida statute states that any county that imposes on itself more than 10 mills ad valorem property taxes for education will not be eligible for state aid. Given the wide disparity of property values in the state, one county can raise $725 per pupil from property taxes while another can raise only $52. The argument is that this provision denies children in property-poor counties an equal education opportunity because it limits the tax rate

[2] Advisory Commission on Intergovernmental Relations. *Fiscal Balance in the American Federal System.* Vol. 2, *Metropolitan Fiscal Disparities.* Washington, D. C.: Government Printing Office, October 1967. p. 66.

[3] Editor's note: The original complaint was dismissed by the federal district court; on appeal to the U.S. Circuit Court for the Fourth Circuit, the complaint was reinstated. At press time no decision on the merits had been rendered.

and this limitation bears no reasonable relationship to education needs. It prevents parents and taxpayers from providing as fine an educational system as provided in other counties.

The Detroit facts show that the city now taxes property at the highest rate possible under state law. Of the $167 million spent for general maintenance and operation of the schools, $81 million comes from local property taxes, $70 million from state aid, and $16 million from miscellaneous sources.

Detroit is plagued by the same problems that exist in other cities. Education costs are rising. The tax base is shrinking. Educational needs are becoming more acute. Serious financial questions are linked to municipal overburdens.

The state aid formula takes two basic criteria into consideration: (a) the number of children and (b) state equalized valuation of property. To a much lesser degree, a factor compares the total tax rate with the average tax rate for all other districts. In comparison with many other examples, the Michigan finance laws are not archaic. Yet these statues are attacked for failing to (a) correct the disparity in the level of local property revenues in the state; (b) compensate districts with marked differences in the quality of schools, equipment, etc.; (c) take into consideration differences in the cost of salaries, construction, etc., in various areas of the state; and (d) consider added costs in districts having concentrations of educationally disadvantaged children who need special services above and beyond regular school programs.

There is court language which may support the proposition that the denial of a fair system of financial support for education is the denial of education for a segment of a state:

> It is now clearly settled that once the State undertakes the function of providing public education to its citizens it cannot arbitrarily deny such education to citizens in one area of the State while continuing to make public education available to citizens in the other areas. The most recent pronouncement of this proposition was on May 25, 1964, by the Supreme Court in *Griffin, etc., et. al. v. County School Board of Prince Edward County, et. al.*, supra. Therefore, as long as the State of Alabama maintains a public school system it cannot make public education "unavailable" for a class of citizens as was here attempted by the defendant State Board of Education and Governor, while making public education available to a different class of citizens in other areas of the county and State. (*Lee v. Macon County Board of Education*, 231 F. Supp. 743 at 754 (1964))

Education—A Personal Freedom

Up to now, the discussion has been based upon "equal protection" under a state assumed but not a required function. Perhaps the issue may be resolved under the "due process" clause of the Fourteenth Amendment. That clause forbids a state from depriving a person of life, liberty, or property without due process of law. While this argument has not been strongly advanced, education may be a personal freedom the same as freedom of speech. The federal interest in education is more than passing. Its history is long, and at times the right to an education has been on the verge of being declared national policy.

Seven times the enabling legislation for new states carried a requirement that the state constitution must make provisions for public education. When former Confederate states were given the right to representation in the Congress, the Congress enacted statutes stating that the state constitution may never be amended so as to deprive any citizen or class of citizens of school rights (16 Stat. 62). In *Brown v. Board of Education* (347 U.S. 483 at 493 1954)), the Supreme Court said:

Today, education is perhaps the most important function of state and local governments. Compulsory school attendance laws and the great expenditures for education both demonstrate our recognition of the importance of education to our democratic society. It is required in the performance of our most basic public responsibilities, even service in the armed forces. It is the very foundation of good citizenship. Today it is a principal instrument in awakening the child to cultural values, in preparing him for later professional training, and in helping him to adjust normally to his environment. In these days, it is doubtful that any child may reasonably be expected to succeed in life if he is denied the opportunity of an education.

Education is most basic to our society and our way of life. The federal legislative support of education started in 1787 with the Northwest Ordinance, and has continued to the extent that billions of dollars are now appropriated in support of education.

Perhaps education has become more than a function that a state can undertake or drop at its discretion. Perhaps it has become a birthright of our people which cannot be deprived without due process of law. The failure of a state to adequately support education may be an arbitrary denial of education without due process of law. This argument may seem farfetched, but so have been many other concepts which we now accept.

Remedies

What is most distressing about these cases is the lack of easy remedies. What can the courts do, considering they have no legislative authority? In the Florida litigation, a remedy can be fashioned. Simply declare the millage limitation statute unconstitutional. This does not offer any suggestions for resolving other cases. Courts cannot enact state aid formulas.

I submit, however, courts will as they have in the past give fair warning of future ruling. The political thicket of reapportionment was not entered until it was apparent that legislators could not or would not act. "Separate but equal" was the law until it became apparent the "separate" provision was adhered to but never the "equal." Taxpayers' suits against federal expenditures were once forbidden under the "lack of standing" doctrine enunciated in *Frothingham v. Mellon* 262 U.S. 447 (1923)) until First Amendment rights caused the courts to look again in *Flast v. Cohen* (88 S. Ct. 1942 (1968)).

I believe some peripheral cases like the Florida one will be decided on narrow grounds. The decisions will carry dicta which will be a warning for the future. If no corrective action is taken, we may find a court ruling that pending the adoption of a fair system of distribution of educational funds, all taxes, property and otherwise, will be forwarded to the state and realloted to local school districts on the basis of identical per-pupil amounts.

For those of you who gasp, is this much different from an order requiring all members of a state legislature be elected at large pending the court's acceptance of a reasonable reapportionment plan?

Detroit's Fight for Equal Educational Opportunity

Abraham L. Zwerdling

THE DECISION of the Detroit Board of Education to file suit against the state of Michigan challenging the constitutionality of the present method of financing public education in the state, may be considered at first blush a bold, radical step. In truth, it is conservative in the true sense of the word, which is defined as involving the preservation of existing institutions. This lawsuit has as its purpose to conserve and protect the American system, which has as its touchstone equal opportunity for free public education.

The Northwest Ordinance of 1787, which included in its territory what later became the state of Michigan, proclaimed:

> Religion, morality, and knowledge being necessary to good government, schools and the means of education shall forever be encouraged.[1]

Alexis de Tocqueville said in his classical work, *Democracy in America:*

> It cannot be doubted that in the United States the instruction of the people powerfully contributed to the support of the democratic republic; . . .
>
> In the United States politics are the end and aim of education.[2]

Free public schools became a reality in America during the years 1830 to 1860. Children could attend these schools without a tax being levied on them for attending. Financing the schools was not tied to the wealth of the student's family. It is plain that in large part public education was a plan to educate the poor. Education was to be the great social equalizer by which each individual found his place in society on the basis of merit and ability alone. As Horace Mann said:

> Education . . . beyond all other devices of human origin, is the great equalizer of the conditions of man—the balance-wheel of the social machinery. . . . It does better than to disarm the poor of their hostility towards the rich: it prevents being poor.[3]

The states started out by delegating the task of public education to the local communities. Local communities were required to finance their own schools with local funds alone. As a result, public schools varied in

[1] Northwest Ordinance of 1787, Article III.

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[2] de Tocqueville, Alexis. *Democracy in America.* New York: Alfred A. Knopf, 1960. Vol. I, p. 317-18.

[3] Mann, Horace. "Report for 1848." *Life and Works of Horace Mann,* Vol. IV. Boston: Lee and Shepard Publishers, 1891. p. 251.

quality with the wealth in the community.[4]

The Flat Grant System

In 1906, Cubberley, an early exponent of equal educational opportunity, called for the states themselves to participate in the financing of public education. He advocated that states supplement local resources with so many dollars per pupil per day of attendance or per employed teacher, the so-called flat grant system of finance to encourage extension of schooling.[5]

This was a pittance to the poorer districts in their attempts to provide a modicum of public education and did not bring about equal educational opportunity. State money was paid to all districts on the same basis, and the program did not offer any hope of bringing the product provided to the poor closer to that provided to the rich.

The Foundation Program

The next step in the effort to bring about equal educational opportunity came in the 1920's through George D. Strayer and Robert M. Haig. They developed what today is known as the foundation program in state school finance. Under this program a district would be guaranteed a certain minimum amount per pupil if it was willing to tax itself so many mills. For example, if the established minimum was $200 per pupil, and the state equalized valuation of a district was such that by taxings its property owners 20 mills it could not raise $200 per pupil, the state would make up the difference. It was believed that this program would achieve equal educational opportunity.

In 1933, the Report of the National Survey of School Finances included a School Finance Charter with various planks calling for the adoption of the foundation program. This included a proposal for an adjustment for wealth which would equalize educational opportunity.[6]

In 1936, the League of Women Voters joined the fight for the foundation program, declaring, "The state should offer all children equal educational opportunities."

With broad support, the foundation program of public school finance was widely adopted. This is the basic school finance program we have in most states today. It is the program we have in Michigan.

The Failure of the Foundation Program

Today we recognize that the foundation program of school finance has failed us. It has failed to provide the equal educational opportunity we expected. It has failed because in many states the minimum amount guaranteed by the state is far below the amount required for a minimally adequate education. The state equalized valuation in the poor local school districts is such that they must tax themselves at many times the rate a wealthy district taxes itself to raise the same amount for education. In

[4] The writer is deeply indebted to *Readings for Sessions on School Finance*, an unpublished manuscript by S. Sugarman from which he has borrowed and paraphrased in detailing the history of school finance.

[5] Cubberley, Ellwood P. *School Funds and Their Apportionment*. Contributions to Education, No. 2. New York: Teachers College, Columbia University, 1906.

[6] Mort, Paul R. *State Support for Public Education*. U.S. Department of the Interior, Office of Education, National Survey of School Finance. Washington, D. C.: American Council on Education, 1933. 496 p.

Michigan the River Rouge District's property valuation per resident pupil in 1965-66 was $53,156, while the Forsyth District's was $1,319 per pupil.[7] In Illinois the Monticello District had $114,000 per pupil property valuation for taxation, and the Brookport District had $3,000.[8] In California, the Big Creek District in 1966-67 had $288,975 per pupil in ADA property valuation; the Shasta Union District had $5,750.[9] In New York the range is from over $200,000 to under $5,000.[10]

The present system of school finance has failed because, among other reasons, it does not recognize that many districts, particularly those in large cities, are overwhelmed with other demands on the property tax for such essential items as police protection and welfare, and, therefore, cannot allocate enough for education.

The present system has failed because it does not even provide for equality in per-pupil expenditures among the various school districts, let alone take account of differences in construction and maintenance costs and teacher salaries, or the added cost some districts face in educating those disadvantaged children who show up at school less able, and not yet ready, to learn. In California total current expenditures per pupil in ADA varied from $297 to $1,345 in 1966-67 [11]; in New York, from $470 to $1,600 [12]; and in 1967-68 in Virginia from $848 per pupil in Arlington County to $374 per pupil in Amherst County.[13] The variation is to the disadvantage of the poor districts with the most disadvantaged children.

Think of what all of this means in terms of class size, teacher training and quality, remedial programs, compensatory education programs, age and condition of school plant, quality and quantity of textbooks, science equipment, language laboratories, physical education facilities, counseling and psychological assistance, and so on.[14] All of this, as Dr. James Conant has written, "jolts one's notions of the meaning of equality of opportunity." [15]

In a country which premises its political, economic, and social system on the belief that every child is entitled to make the most of his own abilities, we are still preferring the education of some children over that of others. Generally speaking, the poor children of the inner city get the least, and the children of the affluent get

[7] Michigan State Board of Education. *Ranking of Michigan High School Districts by Selected Financial Data, 1965-66.* Bulletin 1012. Lansing: the State Board.

[8] McLure, William P., Chairman. *Education for the Future of Illinois.* Report of a Study by The Task Force on Education. Springfield: State of Illinois, December 1966. p. 115.

[9] California State Department of Education. *Average Daily Attendance and Selected Financial Statistics of California School Districts, 1966-67.* Sacramento: the Department, 1968. p. 95 and 114.

[10] Allen, James E., Jr. "The State, Educational Priorities, and Local Financing." *Integrated Education* 6:55-61; September-October 1968. p. 59.

[11] California State Department of Education, *op. cit.*, p. 97 and 115.

[12] Allen, James E., Jr., *op. cit.* p. 58.

[13] Virginia Education Association. *Virginia's Educational Disparities.* Richmond: the Association, February 1969. p. 6.

[14] Keppel, Francis. *The Necessary Revolution in American Education.* New York: Harper and Row, 1966. p. 77.

Thomas, J. Alan. *School Finance and Educational Opportunity in Michigan.* Lansing: Michigan Department of Education, 1968. p. 22, 25.

[15] Conant, James B. *Slums and Suburbs: A Commentary on Schools in Metropolitan Areas.* New York: McGraw-Hill Book Co., 1961. p. 3.

the most. The social cost of all this is not only the personal tragedies of those disadvantaged children to whom the lack of equal educational opportunity spells the end of the American dream, but it is also the waste involved in turning out candidates for the welfare rolls and prisons instead of productive citizens. It is the threat to our system involved in the social dynamite of alienation.

I submit to you that the failure lies in the present method by which we finance public education.

This is not the fault of those school districts, such as Detroit and other big cities, which have inadequate resources and extraordinary needs. It is the fault of the state which created those districts. It is the state which is responsible for public education. Under the Michigan consitution, the state itself is explicitly charged with the responsibility of supporting and maintaining the public elementary and secondary schools in the state of Michigan.[16] The constitutions of 38 states explicitly provide that public education is the responsibility of the state.[17]

Public education and its financing has always been the responsibility of state government. Until now most states have attempted to fulfill this responsibility by delegating a substantial part of it to local school districts. When this system fails, the state is responsible. As the courts have said many times:

A contrary position would allow a state to evade its constitutional responsibilities by carve-outs of small units.[18]

To us on the Detroit Board of Education, this means that the state is responsible for what has happened in Detroit on account of inadequate resources.

The Detroit Experience

Let me tell you a little bit about the Detroit public school system and the children who are in it. There are almost 300,000 children in our system. They do not meet national norms on the Comparative English Test. Nor do they meet national norms on the SCAT-STEP test battery. We have the dubious distinction of being above the national average in the number of young men *not* passing the selective service test.[19]

Every year we graduate approximately 13,000 children from our high schools. For the year 1966-67, we had 10,150 dropouts.[20] In eight of our 22 high schools more than one-half of the starting freshman class will drop out without finishing. In some cases, it is more than 60 percent.[21] While the national dropout rate is falling, ours is rising.[22]

Our high-school diplomas are regarded by many employers as less than

[16] Michigan Constitution of 1963, Article VIII, sec. 1-2.

[17] Johnson, George M. *The Constitutional, Legislative and Decisional Law As It Relates to the Purposes of Public Elementary and Secondary Education Maintained in the Fifty States of the United States.* (Unpublished) p. 2. The Supreme Court of the United States has ruled on many occasions that the state acts through the smaller units it creates, e.g., *Cooper v. Aaron*, 358 U.S. 1 at 16 (1958). The practical effect of these decisions is to make all 50 states responsible for public education.

[18] *Allen v. County School Board of Prince Edward County*, 207 F. Supp. 349, at 354 (1962) affirmed 377 U.S. 218 (1963).

[19] *Report of the Detroit High School Study Commission*, 1968, p. 108.

[20] Michigan Department of Education. *Annual School Holding Power Report*, 1966-67.

[21] *Report of the Detroit High School Study Commission*, 1968, p. 189.

[22] Detroit Public Schools. *Relationship of Income to Some Indices of High School Success in the Detroit Public Schools.* Detroit: Board of Education, 1968. p. 12.

valid.[23] The average black high-school student who completes 12 years of schooling in the Detroit system scores at eighth-grade level in reading comprehension and communication skills.

Fifty-one percent of our elementary-school classes are overcrowded. Simply to achieve state wide average, our system would need 1,650 more teachers and 1,000 additional classrooms. The cost for this would be $63 million.[24]

Five to 10 percent of the teachers we have now are not fully qualified, and 5 percent of our buildings are more than 50 years old.[25]

It costs more to get a teacher to come to Detroit. It costs more to acquire site for a building in Detroit. We have to build the building up instead of out, and that means higher construction and labor costs.

We have costs many other school districts outside the big city do not face at all. Our attendance officers made some 125,000 phone calls last year. A very small percentage of them was for truancy. The majority had to do with children staying out of school because of *poverty*. They did not have shoes. They did not have glasses. They did not have winter clothing, and so they did not come to school.[26]

To a certain extent we pay the price for the whole nation's failure to provide equal educational opportunity. We have a very heavy influx of children from the South. Our records show that children who have been in Detroit less than five years and who are in the eighth grade are not doing as well as children who have been with us five years or longer. We have in our system right now between 10,000 and 15,000 youngsters who have come from Southern states, and who are living, not with parents, but with a sister or uncle or some other relative.[27]

The mobility in our system is incredible. We have a school in our system which opens in September with 1,000 pupils and closes in June with 1,000 pupils, a *different* 1,000 pupils. It has a turnover rate of about 125 percent per year. We have pupils who move five or six times a year.[28] Is is not obivous that it costs more money to educate these children?

These statements of inadequacy should not be taken as a reflection on the children involved. We believe any child is educable, but a child with the handicap of poverty needs more help than he would need if he had the foresight to select affluent, educated parents to give him a head start.

Where do we get the money to do the job we have to do in a big city such as Detroit? Our state equalized valuation has dropped almost $1 billion in less than 10 years, from $5,672,175,000 in 1960 to $4,807,698,000 in 1968. Yet our enrollment is *up* from 285,350 to 297,151.[29]

We have gone to the taxpayers in the past with some modest success, but our people can no longer afford to pay more taxes. The city is more and

[23] Kerner, Otto, and others. *Report of the National Advisory Commission on Civil Disorders*. New York: Bantam Books, March 1968. p. 90.

[24] *Ibid.*

[25] Speech by Norman Drachler, Superintendent of Detroit Schools, at Potomac Institute School District Inequities Conference, November 9, 1968.

[26] *Ibid.*

[27] *Ibid.*

[28] *Ibid.*

[29] Detroit Public Schools. *Comparative Study of School Taxes and Other Taxes in Detroit, Dearborn, and Grosse Pointe*. Detroit: Board of Education, 1968.

more a city of the black, the old, and the poor. Of our almost 300,000 children, as of two years ago, 57 percent were black.[30] As of now the figure is approximately 60 percent. This is up from 40 percent eight years ago. We have 265,000 people over the age of 65 in our city. This figure has tripled in less than 15 years. These people are paying their share of property taxes yet they have no children in school.[31] In total property taxes for city, county, and school purposes, their tax effort is 3.15 times the tax effort of Dearborn and 2.67 times the tax effort of Grosse Pointe. The suburbs surrounding Detroit are able to spend up to $500 more per pupil than we are able to spend in Detroit, and their people can afford it better than the people of the core city.[32]

To the fullest extent of its resources the Detroit School Board has tried to provide equal educational opportunities for the children in the district. To that extent we have instituted new educational and teaching techniques in our schools. We have tried to pay a competitive salary which would bring the best teachers into our schools. Some 38 percent of our teachers, and about 21 percent of our administrators are black, a recent and continuing trend. We have tried to replace our outdated and obsolete facilities. The result is that we had a deficit of $6.6 million last year, and will have a deficit of $8.4 million this year. We are at our tax limit, and can tax no more.

In February 1968, knowing that we had exhausted all other approaches, the Detroit Board of Education filed suit against the state of Michigan, charging that the state had failed in its responsibility to provide equal educational opportunities to the children of our district in violation of the Equal Protection Clause of the Fourteenth Amendment of the Constitution of the United States.

What is the theory of our case? The Fourteenth Amendment provides that no state shall deny to any person within its jurisdiction the equal protection of the laws. In the area of public education, this has been interpreted by the Supreme Court to mean that when a state undertakes to provide public education, education becomes "a right which must be made available to all on equal terms." I quote from the Supreme Court's opinion in *Brown v. Board of Education:*

> Today, education is perhaps the most important function of state and local governments. Compulsory school attendance laws and the great expenditures for education both demonstrate our recognition of the importance of education to our democratic society. It is required in the performance of our most basic public responsibilities, even service in the armed forces. It is the very foundation of good citizenship. Today it is a principal instrument in awakening the child to cultural values, in preparing him for later professional training, and in helping him to adjust normally to his environment. In these days, it is doubtful that any child may reasonably be expected to succeed in life if he is denied the opportunity of an education. Such an opportunity, where the state has undertaken to provide it, is a right which must be made available to all on equal terms.[33]

The state of Michigan has undertaken to provide public education. Indeed, it is expressly required to do so under the Michigan Constitution. The facts, as I stated them earlier, make it obvious that public educa-

[30] Kerner, Otto, and others, *op. cit.*
[31] Detroit Public Schools, *op. cit.*
[32] Kerner, Otto, and others, *op. cit.*
[33] 347 U. S. 483, (1954).

tion in Michigan has not been provided to all on equal terms.

We ask the Court in our suit to declare the present system of school finance in Michigan unconstitutional and to send the matter back to the state legislature for appropriate action. What we seek is equal educational opportunity for every child in the state. This is what public education is all about—giving every child an equal chance to fulfill his potential. We can give a child no less and say that ours is a land of equal opportunity.

Just as special educational facilities and services are required to provide physically handicapped children, such as the deaf and blind, with educational opportunities comparable to those enjoyed by normal children, special educational facilities and services must be provided children who are disadvantaged because they lack the necessary preschool background and extracurricular educational experience in order to learn effectively. If education is to be an opportunity, it must relate to the needs of the pupil. The state recognizes this by providing extra money for the physically handicapped. It must do the same for those who suffer from the fact that their handicap does not show physically.

Our lawsuit against the state of Michigan is based on equal educational opportunity, an idea whose time has come, or more accurately, is long overdue. The necessary judicial precedent has been carefully laid. *Brown v. Board of Education* decided that there can be no unlawful discrimination in public education. The reapportionment cases of the early 1960's held that discrimination on the basis of geography was unlawful. The recent and already famous decision by Judge J. Skelly Wright in the Federal District Court for the District of Columbia in *Hobson v. Hansen* required a program of compensatory education when such was necesary to provide equal educational opportunity to all the children in Washington's school system.[34]

Since our suit was filed last year, the idea of equal educational opportunity has been supported by the bringing of similar actions in Chicago, Illinois; San Antonio, Texas; Bath County, Virginia; Muskogee, Oklahoma; Kenosha, Wisconsin; and Los Angeles, California. We are told that five other large cities will be filing complaints shortly, and at least 40 other city school boards are closely watching this litigation. The inadequacy of present public-school finance will be coming relentlessly before the courts until a favorable conclusion is reached.

The Detroit suit, commenced by the Detroit Board of Education in state court, is now awaiting trial there. Meanwhile, a suit commenced in Federal Court by a group of citizens in Illinois received a quick ruling granting the state's motion to dismiss. These plaintiffs now have an appeal pending before the Supreme Court of the United States, asking it to take jurisdiction of the case. Whether the Court will do so, or whether it will send the matter back for trial on its merits, remains to be seen.[35]

The widespread support and interest in this subject is indicated by the names on the two *amicus curiae* briefs just filed in the case, *McInnis v. Ogilvie*.

One *amicus curiae* brief in support of plaintiffs is by the National Edu-

[34] *Hobson v. Hansen*, 269 F. Supp. 401 (1967).

[35] See Editor's note, page 44.

cation Association, the Urban Coalition, and the Lawyers' Committee for Civil Rights Under Law. Another one is by the American Federation of Labor, Congress of Industrial Organizations; American Federation of Teachers; American Jewish Committee; International Union, UAW; Scholarship, Education and Defense Fund for Racial Equality, Inc.; and the Western Center on Law and Poverty.

In its request to the Supreme Court of the United States to intervene as *amicus curiae* in the support of plaintiff, the National Education Association states that this case "raises the applicability of the Equal Protection clause to State allocation of resources to school children, as an issue which has major implications for the financing of public education in every community, urban, suburban and rural, of America."

At the time our suit was commenced, there was relatively little published on the concept of equal educational opportunities and the inadequacies of present public school finance. Books and journal articles are appearing with increasing regularity.[36] The idea will not go away. Dramatic and essential changes in public school finance are inevitable.

The last two U.S. Commissioners of Education have strongly endorsed the idea of equal educational opportunity, as does the present Commissioner. The momentum is picking up and will not subside until equal educational opportunity is a reality.

The impact of this type of litigation will be nationwide, and the effects will be dramatic. But let me emphasize what will *not* be one of the effects. It is not our intent, nor is it our belief, that improvement of the educational opportunities in our system will be at the expense of suburban or other systems. We regard it as axiomatic that the 50 percent of the districts that already have the resources to provide better than average educational opportunities are sufficiently represented in the legislature to see to it that their own programs are not diminished, but rather that the total educational resources are increased. For similar reasons, we do not see any transfer of the administration of public schools from local to state authorities.

We do believe that a successful conclusion to this litigation will lead to the transfer of public school *finance* from local to state authority, and will probably mean the eventual end of the local property tax for school finance. A local district which is guaranteed by the state the difference between the amount it raises locally and the amount necessary to provide its

[36] Keppel, Francis. *The Necessary Revolution in American Education.* New York: Harper and Row, 1966. 201 p.

Wise, Arthur E. *Rich Schools, Poor Schools.* Chicago: University of Chicago Press, 1967. 228 p.

Daly, Charles U., editor. *The Quality of Inequality: Urban and Suburban Public Schools.* Chicago: University of Chicago, 1968. 160 p.

Benson, Charles S. *The Cheerful Project.* Boston: Houghton Mifflin Co., 1965. 134 p.

Coons, John. *Private Wealth and Public Education.* Cambridge: Harvard University Press, 1969.

Horowitz and Neitreng. "Equal Protection Aspects of Inequalities in Public Education and Public Assistance Programs from Place to Place Within a State." *U.C.L.A. Law Review* 15:787, 1968.

Allen, James E., Jr. "The State, Educational Priorities, and Local Financing." *Integrated Education* 6:55-61; September-October 1968.

Kirp, David. "The Poor, the Schools, and Equal Protection." *Harvard Educational Review* 38:635, 1968.

Campbell, Alan K. "Inequities of School Finance." *Saturday Review* 52:44, 46, 48; January 11, 1969.

children with equal educational opportunities will have little incentive to tax itself. This would achieve a result advocated by Conant, that educational decisions at the local level be divorced from considerations of local taxes.[37]

I personally welcome the demise of the local property tax for school finance. It is inefficient and inequitable. Moreover, it would be better for public education if it were abolished.

Although he has not yet endorsed such a step, Dr. James Allen, the new U.S. Commissioner of Education, has pointed out that such a transfer of financing to the state level would help solve many pressing school problems, including school segregation and inefficient small districts.[38]

Success in this litigation will result in a greater role for educators in future legislative determinations respecting the allocation among the local districts of the state's resources for education. When the state legislatures turn from their present preoccupation with state equalized valuation and millage to considering instead only those factors which tend to equalize the educational opportunities in different parts of the state, educators and educational researchers will have to be consulted and heard. It behooves educators and educational researchers to give more thought to these problems now. Their advice will be sorely needed by the legislatures as they tackle these questions of public-school finance in a new frame of reference.

Finally, and most importantly, if this litigation succeeds, after 150 years public education will begin to fulfill its original purpose—to insure equal opportunity and end poverty. I truly believe that equal educational opportunity is the main answer to the problems of race and poverty which confront America today, both rural and urban America. It is for this reason, above all others, that we must succeed. We ask your continuing support.

[37] Conant, James Bryant. "New State Role in Financing Schools." *Compact* 2: 41-43; August 1968.

[38] Allen, James E., Jr., *op. cit.*, p. 56.

Contemporary Challenges–Myths or Models

George J. Collins

CONTEMPORARY challenges are innumerable. Myths are assumed to be "imaginary or fictitious," and models should be "imitated." The selection of topics of concern for this session are happily limited: a) inner city schools and decentralization, (b) equal distribution of funds, (c) tax reforms, (d) state and federal investments, (e) 100 percent state support, (f) longer school year, and (g) nonschool facilities.

Inner City Schools and Decentralization

Current human interactions in large cities and on campuses provide a new series of needs, problems, and challenges to responsible educational leaders, governmental agencies, and social service organizations. Evidence from inner-city residents reflects new demands for housing developments, family services, education, and recreation.

Community residents demand new involvement in developing programs and services for their needs. Their requests for health and social service are heavy. Volunteer agencies and community services are overwhelmed by demands and a lack of brain power, and money demands for day care, tutoring, unemployment assistance, retraining, health services, dental services, programs for the elderly, and community action participation, to name just a few requests from a neighborhood study group in Boston.

Frustration with "education" particularly, has caused the more vocal citizens to demand quality schools, control of curriculm, and the right to hire and fire teachers. Decentralization of some responsibilities delegated to local school boards represents the latest discovery of citizen demands for democratic participation.

Teachers are unprepared for wide divergencies of heterogeneous grouping and the technology of the electronic age. The usual learning theories and educational methods are currently less effective for about 40 percent of the students in the inner city. Inexperience with broadened responsibilities requires new preservice training and mid-career retraining with multidisciplinary talents.

Colleges and universities remain on the periphery except for isolated grant

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projects. Concerted action within the same institution is noticeably absent, although they have their share of problems and needs. Institutions of higher education, however, represent the most concentrated resource of knowledge and human capacities—student and staff—to develop planning alternatives and demonstrative research to break through the clouds of doubt and overambitious demands.

The challenges surround us. Successful implementation of democratic dreams, new emphasis, courses, and major research are required. History will record the present inaction of our most reliable and resourceful institutions as a catastrophe of our times.

We can learn from the "model" developed by Mort and his associates 16 years ago in the Bronx Park Community Project,[1] or, further back in history from the format for developing participative democracy in education prepared by Dewey.[2]

The hastily contrived myths were demanded by federal coordinators, and presented and enacted with foundation and federal funds without regard to statutes or knowledge of the background principles or models of Dewey and Mort. Communication break downs closed schools unnecessarily. The mass media hastened confrontations, but did little to clarify the issues.

The roles for professional experts in decentralization for the 1970's have changed. The omnipotent expert is no longer accepted. The new expert must be a catalyst with a background of education in a participative democracy. He has to:

1. Listen to the participants: municipal officials, school officials, school administrators, instructional staff members, noninstructional staff members, students, parents, and other taxpayers.

2. Guide the participants in articulating their needs and establishing priorities.

3. Help in the development of communication techniques and coordinating procedures among the participants.

4. Expedite realistic planning for the fulfillment of immediate necessities and long-range goals (establish priorities).

5. Encourage continuous communication of participants for assessment of needs, establishment of priorities, and development of new long-range plans.

Decentralization is here to stay. The models developed decades ago for suburban communities like Widmere-Hewlett and others on an advisory basis need the force of statutory enactment to break down the political barriers in modern urban centers. Once the machinery is established, what Dewey theorized and Mort verified with research, and local citizen groups hoped would happen, will begin to happen. Participation and involvement will lead to higher school expenditures and better educational quality for our city children.

The fiscal implications with or without Program-Planning-Budgeting Systems will be felt in demands for the more evident "quality" measures documented by the Mort Simplex and recently by Igoe at the 11th National Conference on School Fi-

[1] Polley, John W.; Loretan, Joseph; and Blitzer, Clara. *Community Action for Education: The Story of the Bronx Park Community of New York City.* New York: Teachers College, Columbia University, 1953. 102 p.

[2] Dewey, John. *Democracy and Education.* New York: Macmillan Co., 1916. 434 p.

nance.[3] The order of the demands may be different, but one can be outraged by unattractive starting salaries for teachers, outdated textbooks, inadequate supplies, closed schools on week ends and evenings, push outs, dusty-book libraries, poorly maintained school facilities, overcrowded classrooms, lack of supporting specialists, dull and inadequate learning spaces, failure to keep up to date, and a void in research.

Decentralization extends the relation of citizen advisory committees, and demands for new meaningful involvement are seen in cities, suburbs, and rural areas. Educational statesmen can help by listening, then assisting with the articulation and development of more responsive and equitable educational opportunities. Teacher power from negotiations will be augmented as parental fear and apathy develop into concern, advice, and demands. The double-headed parent and taxpayer will meet his demands coming in or ask himself going out, why his child's educational financing has a low priority.

Equal Distribution of Funds

Equal distribution of funds overemphasizes need and underemphasizes ability to support a program. Federal programs have operated on a theory of need. In the practical politics of obtaining congressional votes, equal distributions among the states have always been a subtle but prime objective of the Congress. Defense budgets are frequently analyzed to discover the distribution of funds among states. Since 1965, when federal funds were first distributed to children needing special "compensatory" education based on a distribution formula of low-income families, quite by accident equalization has predominated federal distribution of funds for elementary and secondary education. Alexander and Johns discovered a correlation of −.65 between personal income per child 5-17 years of age and allocations of funds signifying a fairly high equalization.[4]

Most state legislatures have also provided funds for special needs, with equal distribution. In fact, 80 percent of all state programs, 354 of 441 distribution systems are on a flat-grant or equal distribution basis. Only 30 percent of state funds, however, are distributed on an equal distribution system. Special purpose grants continue to increase in number (an increase of 61 from 1957-58 to 1966-67) and the largest percentage (71) of special purpose aid is distributed on an equal distribution system. It is surprising that so many states use equalization for special purpose programs.

In 1966-67, among the special purpose grants funded, were programs for special education in 50 states, kindergarten in 33 states, and the newest "compensatory" programs in 16 states. The affinity between special-purpose grants and equal-distribution programs was not by accident. In one respect this reflects a

[3] Igoe, Joseph A. "The Development of Mathematical Models for the Allocation of School Funds in Relation to School Quality." *Interdependence in School Finance: The City, the State, the Nation.* Proceedings of the Committee on Educational Finance. Washington, D.C.: National Education Association, 1968. p. 208.

Mort, Paul R., and Furno, Orlando F. *Theory and Synthesis of a Sequential Simplex: A Model for Assessing the Effectiveness of Administrative Policies.* New York: Teachers College, Columbia University, 1960. 104 p.

[4] Alexander, S. Kern, and Johns, Thomas L. *Extent of Equalization in Federal Grant Programs.* Unpublished report, U.S. Office of Education, November 1967.

legislative awareness that leeway for funding new and needed programs is not readily available in all districts. In another respect it is the traditional way of enacting laws. Practically, legislators sometimes are convinced that the only way to assure that every one has his "good" program to upgrade education and obtain every vote needed for enactment, the state must *fully fund* the program in every district, much to the dismay of strict equalizationers. With a low return based on equalization, some districts might choose to forego the new program, if they do not already have it. Traditionally, however, school officials react less adversely to legislative mandates or suggested improvements when the sweetner is provided—dollars.

Disadvantages

Every legislative enactment has some disadvantages. Even the most beneficial programs can have their adverse effects that become apparent only after a few years of operation. In Massachusetts, with the noblest intent, a statute was passed to eliminate or reduce racial imbalance. Evidence today indicates that new facilities can be built only in predominantly white areas or where balancing can take place. As a result, the central ghetto of Boston does not have the excellent recreational facilities in the new schools for after school, evening, and summer programs.

Equal distribution of funds ignores (a) unequal ability to support programs, (b) unequal cost to conduct needed programs, and (c) differences in funding the same program because of prevailing salary inequities. (Note that federal distributions of funds for ESEA based on national averages favor states with lower expenditures which is a noble model, but ignores the cost of living, school expenditures, and salaries needed to attract more competent staff members in higher expenditure states.)

Tax Reform

Tax reforms present the most challenging problem to all three levels of government. The U.S. Bureau of the Census reports that tax revenue is federal 60 percent, state 20 percent, and local 20 percent. The federal government obtains about half of its funds from taxes on personal income. This tax revenue is the largest (estimated at $81 billion) and has the least negative reaction. Current revolt is directed toward state and local governments and particularly local school-bond elections (about one-third of them fail).

Postponements of school construction add about 12 percent a year to the cost of a building, or about 18 percent if you include interest. This problem alone signifies the misapprehension and irresponsibility of constructing schools from revenues that are susceptible to the brunt of taxpayer revolts. Unknowingly, taxpayers are losing money fiddling while inflation continues. Their children and the community pay dearly for negative tax actions. I have lived long enough to see rejected school building proposals, purchased years later at four times the cost and at the expense of a generation of children.

Local school operating expenditures have been inching ahead, considerably behind educational needs, and stifled by overreliance on an overburdened property base.

Since World War II, legislative appropriations for education have pro-

vided the bulk of our leadership gains in most states.

Legislative commissions for tax reform are working in a few states; however, the on-going resources are "perceived" by state residents as "at-the-tax limit," and under-utilized taxes by the states are "taboo or off-limits" if you want to be re-elected. "Education" and education by state legislatures have failed miserably in helping taxpayers understand their responsibilities and the need for a balanced tax system.

Underutilized taxes are reported by ACIR.[5] The $2 billion of underutilized taxes are "political questions," inextricably interwoven with social and emotional reactions of legislators and voter-taxpayers. Most financial planners know what to do logically in each state, but action must wait for changes in public attitudes and public policy. Public policy today, sad to say, in most states demands a moratorium on new taxes.

The Congress, as representative of the states, should limit personal income taxes to $80 billion. How? Cut defense spending about 10 percent a year. This is not "blasphemy." Reduce expenditures for everything from the megamultiple new devices to experimental stockpiles and concentrate on research and higher "program-planning-budgeting-production." Current overexpenditures and overextensions world-wide are a new generation of follies.

Shift school construction costs away from local taxpayers. Limit the federal income tax and allow states to extend theirs. Cut defense spending. Why? Because the Congress will never be responsible for education—it is a state responsibility. Further, the Congress in Article I, Section 8, of the Constitution of the United States has no specific power, and, therefore, cannot constitutionally act as a collector and distributor of taxes to states without an amendment.

Tax reform is a myth. Public policy wants luxurious waste and tax cuts, not reform for the next few years—that is until more Johnnies cannot find a seat or have a teacher.

State and Federal Investments in Education

State investments have increased from $1 billion in 1945-46 to $14 billion. Equalization of special-purpose grants must be developed or the grants must be integrated into a comprehensive "block grant" to local districts. The paper work and special programs are wasteful and as equally ridiculous as the proliferation of federal programs appeared to me in 1966, after I had spent one year as Bureau of the Budget forms clearance officer in the U. S. Office of Education.

More funds should come from the federal cuts in income tax rates and defense waste. A recent study[6] shows that 45 states expressly authorize common schools. Many of those use the sacred phrases, *common, general* or *equal.* Legislative statutes usually are replete with such phrases as *equal educational opportunity.* Then, all states prescribe financial systems to support education not based on *opportunities* or *needs,* but WEALTH.

[5] Advisory Commission on Intergovernmental Relations. *Fiscal Balance in the American Federal System.* Washington, D. C.: Government Printing Office, October 1967. Vol. 1, p. 328-29.

[6] Collins, George J. "Constitutional and Legal Bases for State Action." *Education in the States: Nationwide Development Since 1900.* Washington, D. C.: Council of Chief State School Officers, 1969. Vol. 2, Chapter 1, p. 5-69.

Based on providing equal educational opportunities, states must and should provide more than 90 percent of the aid in some districts. The level of support naturally must increase to provide a *foundation* or *basic* or *equal* educational opportunity, including some funds for Mort's "lighthouse" experiments. The system must have incentive opportunities for local districts to exceed the state-supported program. State support for incentive programs should also be equalized by wealth available locally.

Need must be measured, not alone by numbers of students and weighting, but also as a help to the educationally disadvantaged. Class size does make a difference. Furno and Collins reported a comprehensive study of 312 variables by tracing 16,449 pupils in grade 3 for five years.[7] There were 1,992 classifications of pupils for parental occupation (4), IQ (4), class size (4), home (2), achievement (2), faculty (2), race (2) and program (2). The probabilities are overwhelmingly on the side of smaller classes (fewer than 25 pupils). The answers are not absolute, for absolute answers to complex problems are an oversimplification. Even the atom has been based on probabilistic theory since 1958; why not human learning complexities which are far more complex.

Less than a fraction of 1 percent of federal funds is for general aid to public education. The 7 percent referred to as federal contributions is almost entirely for special-purpose programs, not general aid in the regular operating budgets. A decade ago I wanted 33 percent of the educational expenses (current and capital) to be supported by federal aid. But there are too many forms to complete, too much red tape, too many amendments to support the special interest of power groups, and too little response to changing needs to fight this uphill battle for another 100 years (from Morrill in 1862 to ESEA in 1965).

The Congress has known for two decades that there was and is a serious shortage and overuse of inadequate school facilities, and it has shirked its responsibilities. Only $1 out of every $9,600 collected by the federal government is used for school construction (impacted aid and limited ESEA programs). About $1 out of every $10 local and $1 out of every $72 state are invested in school construction.

For operating costs our governments invest $1 out of every $3 local, $1 out of every $4 state, and PENNIES out of every $197 federal, or if you count extracurricular ESEA, impacted aid, EPDA, etc., you would receive $1 out of every $132 federal.

In general, Federal support for education is a myth with "faint" hopes for special programs.

100-percent State Support

One current myth indicates that we do not have a system of 100-percent state support of education. An historical review of legislation and education indicates that state legislative responsibility for education was delegated to local school districts or municipalities. State legislative taxing authority provided state trustees (local school officials) to use state taxing authority to tax property in local school districts to support the state responsibility for education. Today, after a few generations, state responsibilities

[7] Furno, Orlando F., and Collins, George J. *Class-Size and Pupil Learning.* Baltimore: Baltimore City Public Schools, 1968. 146 p.

and state taxing powers are a myth to any local citizen.

Equal opportunity cases should expose the inequities in present enrollment and property-wealth based formulas.[8] The myth is misinterpretation of equal dollars for all children in a state. The problem will be to educate state legislatures to understand the differences between support and willingness to invest in better schools. There must be some measure of local willingness to provide "lighthouse" and better support for education above the equal support recommended by the court. Without a favorable judicial ruling to require better legislation for equalization, full state support is a myth.

A model to follow where states can beneficially move toward 100-percent state funding is capital construction for schools. The savings to a third of the districts each year would be 20 to 40 percent of the cost of construction. The savings to the remaining two-thirds of the districts would be about 25 percent of the cost of construction by accelerating needed projects in addition to state assumption of costs.

Longer School Years

A substantially longer school year for all children is a myth. The average numbers of days among states and districts range from about 170 to 185; the median is about 179 days. A few days could be added to the average. Some states could add as many as 15 to 20 days. Present tax revolts, dollar shortages for education, teacher bargaining, summer programs, parental vacations, camp experiences, needed earnings by students, and a lack of that frill, air conditioning make a full summer program a myth.

The models worth emulating are programs for field trips, study abroad, remedial or extended opportunities in the summer. Programs in air-conditioned buildings will have waiting lists.

Nonschool Facilities

Nonschool facilities for all school children are a myth. Two snow days and parents are screaming for school to begin. Television, libraries, cultural opportunities, and one-to-one or small group instruction by parents provides diminishing returns except for the very, very exceptional parent, once reading progresses past the first hundred words and even before that for most parents.

The models for nonschool facilities are field trips and museums, if meaningful pre-use and post-use experience are integrated with the trip. The tax dollar could not afford the drain on full school expeditions. The nonschool facilities are exhausted in the area when the numbers exceed a few hundred.

There are models of greater utilization of special facilities in many major cities today; but a desk, a book, or a quiet group-oriented activity or a school facility are hard models to correlate negatively with even the Coleman wizardry.

Theory or Practice

Financial experts can provide the most beautiful theory of balanced tax programs, equalized and incentive reimbursements, staff requirements, and other exemplary educational reforms or innovations. Computer-assisted experts can simulate any number of changes in the variables for extending the options to correct state reimbursement formulas. The model

[8] See Editor's note, page 44.

builders and models are within closer reach than the moon, but politicians and legislative practices are not buying models.

In practice, legislators are still investing in myths which replicate the traditional ways of taxing and distributing funds with only minor changes. The courts are our one ray of hope to shatter a few legislative myths expeditiously. Responsible school finance officials in each state should be ready with the models and a variety of options to equalize the support of a worthy basic program for the inhabitants of the 21st century, including a program that brings incentive funds for every district to do some experimenting. Members of key legislative committees must be participants in the formula development. In 1963, my first draft of Demonstration Centers now Title III of ESEA was for five districts. Today every district should be experimenting to test the myths and models of the educational enterprise with local and state funds from local taxpayers and without a ream of state or federal proposal forms. One model we should all follow in financing is to eliminate the paper work in the practice of operating schools.

Decentralization and the Finance of Inner-City Schools

Henry M. Levin

THE PURPOSE of this inquiry is to determine how we can get more resources to the disadvantaged child in the inner city, resources that will be used to substantially improve his educational opportunities. This analysis can be divided into three steps: (a) obtaining more money for school districts with disadvantaged children, (b) using that money to support services for disadvantaged children within school districts, and (c) spending the money in such a way that it yields results.

While the traditional literature on school finance has been devoted to "equalizing educational opportunity" within states, much of the recent discussion has focused on financing education for that group with the least opportunity, the educationally disadvantaged. Even the most conservative educator would agree that equality of educational opportunity implies equal educational resources among schools; but in the past few years, equality of educational opportunity has been increasingly interpreted as meaning some semblance of equality in terms of educational output. This latter interpretation implies that greater educational resources be devoted to the schooling of students from low social strata relative to those allocated to middle- and upper-class children.

As we know, by either standard our efforts have failed. The school districts least able to afford substantial support of their schools are those saddled with the largest proportions of poor and disadvantaged pupils. Neither federal and state compensatory programs nor state equalization programs have made much of a dent in the unequal distribution of educational opportunity as reflected by school expenditures. Foundation programs and other equalization plans have simply not achieved their putative goals by a wide mark. To cite some examples, California showed per-pupil current expenditure extremes of $1,710 and $274 in 1967, while for Michigan the high measure was $915 and the low one was $394. Moreover, to no one's surprise, the high-expenditure districts were characterized by middle- and upper-income children while the low-expenditure districts were charged with schooling the poor. In effect we have been investing greater social resources in improving the educational profi-

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ciencies of the rich than of the poor. I doubt whether this phenomenon fulfills anyone's concept of fostering equality of opportunity.

Why do these inequalities persist? Though many would like to believe that they are due to differences in fiscal effort among districts, this does not seem to be borne out. In a substantial number of cases the low-expenditure districts are burdened with far higher tax rates than are the high-expenditure districts. The inequalities persist for a combination of both technical and political reasons. The technical reason is simply the fact that the mechanistic aid formulas are too simple to take into account all of the factors that lead to inequality in school expenditures. More important, however, are the political problems that limit meaningful equalization. The powers-that-be at the state level are unwilling to radically redistribute state funds, for that would require the wealthy and politically powerful school districts to heavily subsidize the poorer ones. This political recalcitrance is evident in the unrealistically low level of foundation support. It is doubtful whether any state legislator would wish to send his child to a school that was financed at the foundation level. Similar criticisms can be aimed at the other "equalizing" grants. The point is that a little equalization may be enough to salve some social consciences, but it is surely not meaningful in terms of guaranteeing equality of educational opportunity.

Further, categorical grants provided for low-income children have been far too meager to fill the gap. Over $1 billion a year has been spent under Title I of the Elementary and Secondary Education Act of 1965, but this must be considered to be merely a start in the right direction. Unfortunately, the publicity given Title I programs tends to hide the fact that it represents only about 3 percent of total expenditures for the country as a whole. In some large cities per-pupil expenditures are just half of what they are in the outlying suburbs, even with the Title I contribution. One superintendent of a large city school system characterized Title I with Mark Twain's definition of the Black River: "It is a mile wide and an inch deep."

Yet, I am somewhat optimistic about getting more resources to the impoverished districts and particularly to the cities. First, the federal role in subsidizing the education of the disadvantaged is likely to increase during the forseeable future. Second, a relatively new legal strategy may force the states to take a more dominant role in promoting equality of educational opportunity. It is believed that the present inequalities in expenditures violate the equal protection clause of the Fourteenth Amendment of the Constitution of the United States.[1] The state courts have repeatedly ruled that education is a state function, not a local one. Local school districts are considered to be subdivisions of the state only for purposes of administrative convenience. Whether school taxes are collected by the state or local school districts, they are considered to be state taxes; and if disparities exist in the revenue resources available to school districts, such differences exist as a consequence of the state's discretion.

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[1] Kirp, David L. "The Poor, the Schools, and Equal Protection." *Harvard Educational Review* 38:635-68; Fall 1968.

Wise, Arthur. "Is Denial of Equal Educational Opportunity Constitutional?" *Administrator's Notebook* 13:1-4; February 1965.

On this premise at least a dozen cities, including Detroit, Chicago, and San Antonio, have begun to sue their respective states with the goal of requiring the states to foster a truer measure of equality of opportunity. While some of the suits argue for equal expenditure, others assert that equal protection of the law requires unequal expenditures based upon the inner-city child's extra educational needs. In practical terms the states would be required to undertake a far larger share of the financial burden, one that would require substantially larger allotments to the city schools. It appears that if these cases can document the proposition that lower expenditure schools limit the educational opportunity of their pupils *vis à vis* higher expenditure schools, there is a good chance that the states will become fully responsible for remedying present inequities.

Let us assume that this phenomenon in conjunction with increased federal aid will improve substantially the allocations to city school districts. Much of the work done on financing the city schools implies that if this were to come about, the problems of financing the inner-city schools would be pretty much solved. Here I must register a strong dissent, for (a) there is little guarantee that all of the increased funding would be distributed to the pupils for whom it was intended, the educationally disadvantaged; and (b) there is even less assurance that the money would be used to mount effective programs that would capitalize on the cultural attributes of poor, black youngsters in the inner-city schools.

To begin with, those city schools with lower-class and black enrollments have been discriminated against for years in the allocation of resources. These inequalities have not been directly visible on accounting statements because, as all of us know, our accounting systems do not report expenditures on a school-by-school basis in sufficient detail for analysis.[2] Moreover, almost every school superintendent will deny that such inequities exist. Yet, every study that I know of that has audited funding on a school-by-school basis within cities has found that poor children and black children were attending schools that were considerably less well endowed than their white, middle-class counterparts.[3]

Not only have these differences been tolerated (and perhaps promoted) in the past, but what is more surprising is that a recent analysis of a large city in its third year of a well-known compensatory education program revealed the same resource discrimination in favor of white and middle-class pupils and to the detriment of lower-class and black pupils. Unfortunately, the publicity given to compensatory education efforts [4] has given the impression that the disadvantaged

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[2] Some large cities notably Chicago, Memphis, and Atlanta, do present such data locally in budgets, but need not report them to state or other authorities. The data are mainly salary payments to staff in the schools. In these cases, area, central purchases, or central-office expenditures are not pro-rated to give actual expenditures.

[3] Sexton, Patricia C. *Education and Income.* New York: Viking Press, 1961. 298 p.

Thornblad, Carl Eric. *The Fiscal Impact of a High Concentration of Low-Income Families upon the Public Schools.* Urbana: University of Illinois, 1966. Abstract: *Dissertation Abstracts* 27:4094-95; June 1967.

U.S. 89th Congress, 2nd Session, House Committee on Education and Labor, Task Force on Antipoverty in the District of Columbia. *A Task Force Study of the Public School System in the District of Columbia as It Relates to the War on Poverty.* Washington, D.C.: Government Printing Office, 1966. 119 p.

[4] Cohen, David K. "School Resources and Racial Equality." *Education and Urban Society* 1:121-37; February 1969.

are receiving more school resources than the non-disadvantaged. The truth of the matter is that while some "inner-city" schools show higher expenditures than some "middle-class" schools within cities, *on the average* the schools attended by lower-class children are still being discriminated against *vis à vis* those attended by middle-class children.

One example of the misleading publicity is that given to the More Effective Schools (MES) for the Disadvantaged in New York City. It is true that expenditures on these particular schools approximately doubled. What is not pointed out is the fact that the MES schools represent only 21 out of over 900 schools in New York City, and probably over half of these 900 schools serve educationally disadvantaged populations. Let any New Yorker who seriously believes that more is being done for the poor than for the rich simply compare the schools in the Riverdale section with those in East and Central Harlem. Of course, it is important to point out that discrimination against the inner-city schools is not so much a planned phenomenon as it is an excellent example of institutional racism. The unified salary schedule gives the same reward to a teacher no matter how desirable the teaching situation within each city. It is little wonder, then, that the least experienced teachers and long-term substitutes prevail in the inner-city schools while the more experienced teachers are found in the middle-class schools. If we really cared for the needs of the disadvantaged, we would be providing the inner-city schools with a more experienced teaching force, even if substantial salary differentials and other benefits were required to achieve it. Instead, both school administrators and teacher organizations have preferred to treat the unified salary schedule as inviolate *regardless* of its impact on inner-city schools.

The fact that teachers in the inner-city schools are at the lower experience rungs is the primary reason for the lower per-pupil expenditures in those schools. Yet the central school boards seem unwilling to return to those schools the "savings" on teachers in the form of substantially more personnel, supplies, and other amenities. Rather the "savings" from lower teacher budgets in the ghetto schools represent implicit subsidies for the middle-class schools. Another form of institutional discrimination is the "accruals" on teacher salaries which must be returned to the central school authority when teachers are absent. The teacher absentee rates are far higher in ghetto schools than in other schools, so this also reduces the allocation to the former group of schools. Many other instances can be cited.

But even when additional finances are allocated to the inner-city schools, they are simply used to supply more of the same resources and programs that have already failed the inner-city child. Most peculiarly it is expected that the teachers, curriculum, school organization, and educational methods that have consistently failed the ghetto child will somehow succeed if only class size is reduced and more library books and counselors are added. Needless to say, compensatory education programs have not shown very encouraging results.

I maintain that the central school bureaucracies are presently incapable of formulating instructional programs that will capitalize on cultural differences.[5] Instead, the programs assume

[5] Ashton-Warner, Sylvia. *Teacher*. New York: Simon and Schuster, 1963. 224 p.

that the child is deficient and needs remediation or more of the same approach that has not worked. More careful analysis suggests that the inner-city child is culturally different and needs *a different* approach. But the culturally different strategy[6] has not been substantially adopted by the large cities, and the schools have continued to fail the inner-city child. That is where we stand.

Decentralization as a Remedy

In my view, decentralization of the large-city schools has several advantages over the present approach for getting more resources into the inner-city schools and for using them more effectively. These advantages would be outgrowths of the following plan for financing decentralized schools.[7]

Since decentralized school districts would obviously be too small to raise their own revenues, the provision of fiscal resources would continue to be a function of the central school authority. The central school board would provide each decentralized school board with a lump-sum budget, and each local board would possess substantial discretion in allocating its budget. Financial accounts and accountability would remain in the hands of the central school authority, but the actual disbursements for each school could be authorized only by the local governing board for that school. On the basis of this decision-making power, the local governing boards would construct their programs and purchase the necessary components to implement them, a course of action that is not permitted under the existing regulations.

In general, the size of the lump-sum allocations would be directly related to the degree of educational need of the pupils. That is, schools with large numbers of educationally disadvantaged enrollees would receive larger allotments per pupil than would schools whose pupils were more advantaged. One way of fulfilling these criteria would be to require the central school authority to distribute its own resources among decentralized schools in such a way that each local school board would receive the same basic allotment per pupil. Then, state and federal monies would be used to augment the local distribution according to the level of need among the decentralized districts. Using this approach, the higher levels of government would be responsible for financing the additional resources required for compensatory education, a role consistent with the goals of the larger society to equalize educational opportunity.

It seems that this arrangement would go far to counter financial discrimination against inner-city schools for the simple reason that such inequitable treatment would be visible. That is, per-pupil allocations could be easily computed from lump-sum budgets and school enrollments. Under the present accounting system school-by-school expenditures are not computed or reported, so such inequities are not visible.[8] On the other hand, if a lump-sum budget were reported for each school, the social hypocrisy evident in preaching compensatory education for the poor while imple-

[6] Baratz, Joan, and Shuy, Roger. *Teaching Black Children To Read.* Washington, D. C.: Center for Applied Linguistics, 1969. (In process)

[7] James, H. Thomas, and Levin, Henry M. "Financing Community Schools." *The Community School.* (Edited by Henry M. Levin.) Washington, D. C.: Brookings Institution, 1969. (In process)

[8] See Editor's note, page 44.

menting it for the rich would be obvious. The visibility of lump-sum resource allocation patterns would enable a measure of social accountability and would tend to dampen much of the *sub rosa* fiscal discrimination against schools in poor and black neighborhoods. (Of course, even without decentralization the states should require school-by-school expenditure information from school districts. Some of the difference will certainly be due to differences in function and level of school as well as variations in maintenance and contingency-type expenditures. Yet, these factors can be adjusted for, and an analysis can be made of intra-district resource allocation. In my opinion such information would serve to counter discrimination against the powerless and poor.) Thus, decentralization would help to serve the second aim that I outlined in my introduction, that of getting to the poor, educational resources that they do not seem to be getting under a central bureaucracy.

The second advantage of decentralization would be that the inner-city schools should be able to use resources more effectively to improve their operations than have the city-wide bureaucracies. The central school boards seem to be unable to appreciably deviate from an educational approach that simply has not served inner-city youngsters effectively. The participation of parents and other members of the community in running the schools would lead to a more total involvement in the school by its constituency that is possible under the present rigid structure. Differences in community needs would be reflected by differences in educational strategies, a phenomenon which is not possible within the confines of the present universalistic model.

In addition, resources would be devoted to the affective needs of disadvantaged children to promote the sense of self-worth and identity of the pupils being served while imparting to those youngsters the ability to influence their lives. The often noted effect that the "one approach school system" has on undermining the self-worth and dignity of black and other poor children would be consciously attacked by diversifying the schools to serve particular needs.

The decentralized school board in conjunction with its teachers and administrators would work out relevant educational strategies, and the ability of the school board to allocate its own budget would enable it to obtain the necessary mix of resources. Library books would not be forced upon schools that have no libraries, and scientific equipment and overhead projectors would not be allocated to schools that do not have the relevant programs, personnel, or facilities to use them. These anachronisms have taken place quite regularly under the traditional and highly centralized system. Decentralized schools might wish to purchase some services from outside contractors wherever the schools' own capabilities were least adequate. Indeed, the community has the most at stake in the education of its children. Given this incentive, we can expect that the community decision-making body will have a deep interest in planning programs and allocating its limited resources in the most effective way possible.

Needless to say, the transition from centralized to decentralized schools will not be an easy one. Though the present city school systems are educationally ineffective for substantial numbers of youngsters, they appear to operate in a highly organized

way. Indeed, the present pattern of administering the schools has benefitted from half a century of experience in establishing procedures to handle any possible contingency (except the failure to be educationally effective). Any quest for drastic change in the schools must necessarily be accompanied by a certain amount of trial and error and extensive planning. But I hold out little hope of substantially improving the inner-city schools without the drastic structural reform that would make the parents and community the agents of change. Other aspects of decentralization may be problematical depending upon one's objectives, but clearly decentralization has much to recommend it in terms of getting more resources into the inner-city schools and using them wisely.

Criteria for Evaluation of Financial Aid to Education: The Need for Re-examination

Ernest Bartell

THE CRISIS OF COSTS that faces the nation's schools is not likely to diminish in the foreseeable future, according to most economists, regardless of efforts to increase efficiency in administration of our school systems, for the principal stimulus to increase the costs of education comes from the nature of technological progress outside the educational sector itself. Rapid and sustained technological change makes it possible for wages and salaries in many sectors of the economy to rise steadily with no inflationary increases in the prices of goods produced. The economy can afford to pay the widget-maker twice as much an hour without inflation today because he produces twice as many widgets in an hour's time as formerly.

So far, however, in education there have been few such comparable increases in measurable productivity. Nevertheless, salaries of teachers must keep pace with those of their peers in more economically productive employment. Since salaries account for more than half of the operating expenditures per pupil in our schools, a substantial and steady increase in costs can be expected to continue as long as productivity in education lags behind productivity in the rest of the economy.

The financial burden placed upon local school districts by these characteristics of the economy, of course, has increased pressure for more broadly based financing of all levels and types of school operations. However, greater federal and state support increases the complexity of evaluating both the efficiency and the equity of school finance. Simple criteria for evaluating the efficiency of educational inputs have proven adequate in the past to call attention to important private and social returns to education. Straightforward analysis of high rates of incomes generated by educational investments have been adequate to provide an economic argument for federally supported educational programs consistent with objectives of fiscal policy at the federal level. The result in the past few years has been initiation of federally supported supplementary services to general education, for example, under Title I of the National Elementary and Secondary School Act, as well as of special educational programs such as Operation Head Start, Job Corps, Neighborhood Youth Corps, and vocational training under the Vocational Education Amendments of 1968.

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However, oversimplified conventional criteria for analysis of costs and benefits may produce results that are inadequate to justify enthusiastic expansion of the federally supported educational programs that must compete with other expenditure programs in the pursuit of federal goals of high employment and of assistance to minority groups. Similarly, simple standards for analysis of the incidence of the burden of educational finance placed upon a single tax base are often no longer adequate as criteria for ascertaining the equity and feasibility of programs of financial aid to education.

The total programs of educational finance will more and more be the result of combinations of local effort, and state and federal support, all linked by increasingly complex formulas determined independently at the various levels of financial support. This problem, which in the past has centered on links among federal, state, and local financial decisions for education, is now further complicated by the introduction of additional political decentralization in the form of community control of schools.

It is not likely that initiative in promoting rational, comprehensive analysis of both efficiency and equity in the finance of the nation's educational efforts will be taken by those whose educational interests are only tangential to their primary responsibilities. Yet, the *Economic Report of the President* for 1969 [1] makes it clear in its discussion of federal programs of aid to education that as experience and data from existing programs accumulate, evaluations that will determine the degree and direction of future support will be made. Hence, the burden of providing the kind of comprehensive analysis that will account fully for costs, benefits, and ability to support educational programs may well rest upon the educational profession itself.

To illustrate the magnitude of this task, we shall review here some of the criteria that are currently being used or developed to explain the impact of federal educational expenditures upon the economy and society and to offer some examples of implications of interrelated policies for financing education at different levels of government.

Criteria for Evaluation of Benefits of Federal Educational Expenditures

Operational criteria for evaluation of federal expenditure programs are quite naturally related to economic goals of federal policy, such as elimination of poverty, and to social goals of equality of opportunity. A convenient economic criterion for evaluation is one based on attainment of minimum standards of income, for example, the number of persons who are enabled to cross a poverty line or threshold level of income. The use of some poverty level of income, of course, is somewhat arbitrary and varies with family size and geographical location. Biases based upon these considerations, however, are not likely to affect the measurement of benefits from educational expenditures any more than from other social expenditures.

On the other hand, discrete threshold criteria of this kind are likely to introduce a bias unfavorable to educational expenditures when compared with direct personal transfers

[1] *Economic Report of the President.* Transmitted to the Congress, January 1969. Washington, D. C.: Government Printing Office, 1969. p. 161-62.

or subsidies, such as those incorporated in negative income tax policies. The use of a fixed threshold level of income as a measure of the contribution of subsidized educational programs to the elimination of poverty fails to capture the contributions to national income made by education on either side of the threshold. As Ribich has pointed out, movements of substandard incomes closer to the poverty threshold as a result of education and improvement in income that lies just above the threshold are easily overlooked in a comparison of effects of special educational programs with direct personal transfers intended to raise people above a poverty threshold.[2] Returns to education, even to specialized, income-oriented programs, such as Job Corps and vocational education, are likely to be too diffuse over time to be easily comparable with measurable effects of noneducational transfers on the elimination of poverty.

As a matter of fact, with the exception of job retraining, the programs evaluated by Ribich have all displayed income-benefit-to-cost ratios of less than unity. Moreover, educational expenditures under existing programs overlook certain segments of our society entirely, particularly our elderly, who, if birth rates continue to decline in the United States, will account for a larger share of our population in coming decades.

On the other hand, measurement of the conventional rate of return on educational investment that is so familiar in the economics of education is equally unsatisfactory, since it is insensitive to changes in the distribution of income. The educational investments with the highest income-to-cost ratios may simply be those that help the rich become richer. As long as measured contributions to income and output are explicitly or implicitly used for comparative evaluation with other federal expenditure programs, some measure more sensitive than a single poverty threshold will need to be enforced, particularly to justify relatively expensive special education programs, such as manpower retraining.

More precise indexes that weight total economic gains and high-priority poverty thresholds can be constructed for more effective comparative evaluation of educational expenditures. In this case, it may be necessary for educators to present a more nearly complete analysis of the complementarity that exists between educational expenditures and other more direct programs aimed at reducing unemployment and measurable poverty, in order to offset unfavorable competitive comparisons of educational expenditures with programs of direct transfers to raise incomes.

For example, several economists since Pigou have suggested a framework of analysis of complementarity that is overlooked in many theoretically simplistic empirical evaluations. To the extent, for example, that expenditures on education reduce the ranks of low-income unskilled workers, the supply of that target component of total labor supply diminishes. The decrease in supply alone may be sufficient in a market economy to push wage rates of the remaining supply of unskilled labor upward, thereby lowering the cost to society of maintaining a minimum threshold level of income through direct transfer programs such as the negative

[2] Ribich, Thomas I. *Education and Poverty*. Washington, D. C.: Brookings Institution, 1968. Chapter 2, "Poverty Lines and the Criteria of Policy Choice," p. 17-38.

income tax. Nevertheless, as long as specific and localized economic targets do secure high priority among future federal objectives, educational expenditures may simply not measure up to professional expectations under the scrutiny of increased comparative analysis.

Not all federal aid to education, of course, is or will be earmarked for specialized income-generating programs. General education, for example, is the target of Title I of the National Elementary and Secondary School Act. Contemporary economic evaluation of general education frequently uses as its index of output some measure of academic achievement, usually in terms of grade-level attainment of basic skills. Use of single threshold grade-level criterion for evaluating aid programs would obviously be subject to some of the same difficulties associated with target levels of personal incomes, namely, the failure to measure improvements below and above the threshold.

However, other problems of evaluation of the impact of expenditures on general education have arisen in many contemporary analyses of educational inputs. It is not atypical for expenditures per pupil for education to be a statistically insignificant determinant of achievement in regression analyses of general educational output, or at least for expenditures to be less significant than other independent input variables. Indeed, the Coleman Report indicated that not only expenditures per pupil, but other direct input measures, have little relation to indexes of pupil achievement.[3]

Levin and Bowles have claimed that multicollinearity among certain independent variables in the Coleman analysis destroys the explanatory value of conventional educational input variables.[4] A new Coleman Report, currently in preparation, attempts to treat this problem by isolating and grouping its explanatory variables according to a research strategy best described as the principle of commonality. Other technical difficulties in systematic evaluation of the contribution of educational inputs to pupil performance also call for further refinement in analysis. For example, the fact that indexes of pupil achievement are normally ordinal measures, while dollar expenditures and measures of other inputs are usually cardinal measures, may increase the difficulty of identifying the relationship between inputs and outputs, and it may justify more refined transformations of variables before dependable relationships can be established under existing econometric techniques.

It thus may well happen that with more refined analysis the influence of input variables, such as educational expenditures, may prove to be more significant, and that on-going evaluation of such inputs will provide stronger support for financial aid to general education. Nevertheless, regardless of the techniques of evaluation that will be developed, it is likely that much actual and proposed financial aid to general education will continue to appear costly relative to the goals being sought.

Equality of opportunity is one social goal stressed at the federal level that admits of varying interpretations

[3] Coleman, James S., and others. *Equality of Educational Opportunity*. U.S. Department of Health, Education, and Welfare, Office of Education. Washington, D. C.: Government Printing Office, 1966. 737 p.

[4] Bowles, Samuel S., and Levin, Henry M. "More on Multicollinearity and the Effectiveness of Schools." *Journal of Human Resources* 3:393-400; Summer 1968.

some of which may appear to prejudice the case for educational expenditures. Where equality of opportunity is defined operationally simply to refer to provision of equal dollar values of services, there is virtually no evaluative problem, but only the task of identifying and measuring the appropriate dollar costs to be equalized. However, when as in some proposals for compensatory education, equality of opportunity demands equality of pupil performance, the dollar expenditures required to raise performance of disadvantaged children to objective levels of their peer groups may appear disturbingly high to policy makers.

The responsibility may well fall upon the educational profession itself to satisfy doubts of policy makers about the efficacy of compensatory education expenditures. Here a point that may need to be clarified and demonstrated empirically is the fact that compensatory education expenditures must compensate not only for deficiencies in classroom education received by the disadvantaged, but also for deficiencies in nonschool educational inputs as well, particularly in contributed services provided by parents in the home to the total process of education of their children.

Dugan has inputed dollar values to the time contributed by parents at various socioeconomic levels and has introduced these values with considerable success into his analysis as explanatory variables of differences in pupil achievement.[5] The value of parental services is found to vary widely when those services are priced according to market opportunity costs, that is, according to income-earning potential of parents themselves based upon their own educational attainment, and according to the time available to mothers at different socioeconomic levels for child care in the home. Measured against the total difference in dollar values of accumulated educational inputs, in and out of the home, the otherwise apparently high costs of compensatory education begin to assume a new, more efficient achievement.

Moreover, preliminary evaluations by the U.S. Office of Education and the Office of Economic Opportunity suggest that early compensatory education, such as that provided by Operation Head Start, offers substantial cost savings over compensatory education at a later period in the life of the pupil. Thus, it may well be that only after the costs of education are adequately measured as an accumulation of investments in the pupil from many sources over the entire life of the pupil can an accurate measure of the marginal costs and benefits of many proposed aid programs, especially at the federal level, be adequately evaluated and ultimately justified to the policy maker.

Intergovernmental Distribution of Aid

Once an amount of aid to education is justified on the basis of its contribution to social and private objectives, there remains the re-examination and evaluation of the criteria or formulas by which that aid is both distributed and utilized among regions and the governmental units that represent those regions. Studies currently under way at the U.S. Office of Education indicate that the 50 different formulas used by the 50 states for allocating their own funds to local public education are inconsistent, not

[5] Dugan, Dennis. *Social and Public Costs of Education: A Comparison.* Washington, D.C.: U.S. Department of Health, Education, and Welfare, Office of Education, 1969. (Unpublished)

standardized, and generally unsuitable as mechanisms for distribution of federal block grants through the states to local public schools.[6]

It has been found that under existing formulas, most urban areas tend to get less than a per-capita share of the states' own funds for education with no recognition of possible higher costs of education in these areas. State aid formulas result in losses as high as 63 percent below state averages on a per-capita basis in certain large urban areas. The variations are frequently due to matching grant features and to distribution on the basis of local property tax revenues designed to insure local maintenance of effort.

Such variations are seen to be incompatible with declared objectives of federal aid to education, such as equality of opportunity. Hence, current proposals for distribution of federal aid tend to incorporate criteria that are more straightforward than existing state equalization formulas. Typical recommendations favor average daily membership as the basic criterion with an adjustment for the number of disadvantaged children in a given school district. Enrollment rather than attendance figures are usually favored because of the high proportion of school operating expenditures that is independent of actual classroom attendance.

Part of the difficulty in achieving adequate equalizing effects with many state formulas stems from their reliance upon local school district property values as the base for equalization features, and upon the property tax itself as the index of maintenance of effort by local districts. Both these approaches are likely to bias distribution against urban areas as long as urban property values continue to deteriorate relative to those in the suburbs.

Moreover, a study by Hirsch suggests that efforts by local communities to increase the base of property values by attracting industry to the area may be self-defeating.[7] Analysis of the impact of 16 industrial sectors in the St. Louis SMSA upon income, employment, and values of commercial and residential property indicate that less than two-thirds of them had a net positive effect on the status of fiscal resources available to local government, even after allowance was made for increased eligibility for state aid. Without allowance for state aid only three of the 16 industrial sectors had a net positive effect on fiscal resources. The rationale behind these conclusions stems from high positive employment effect of some industries, which increases total population in the area and hence increases the school-age population and school costs more than proportionately to the increase in property tax revenues, even when state subsidies under existing formulas are included.

One difficulty with federal aid channeled through states that is yet to be fully analyzed and resolved is the possibility that federal aid will be used for services that would otherwise be provided by the states and local districts themselves, rather than as true increments to state and local effort. Recent budget analysis of 11 cities and their suburbs for the years 1965

[6] U.S. Department of Health, Education, and Welfare, Office of Education. *Federal and State Financing of Local Public Education.* Washington, D.C.: the Office, 1969. (Unpublished)

[7] Hirsch, Werner Z. "Fiscal Impact of Industrialization on Local Schools." *Review of Economics and Statistics* 46:191-99; May 1964.

through 1967 by the U.S. Office of Education suggests that fears of such substitution effects thwarting federal objectives are not wholly warranted.[8] Results of the analysis indicate that in 1967 most of the federal aid was used by school districts to provide a level of educational services over and above that provided in 1965, although in 1965 the same was true on the average only for the suburbs, not for the cities themselves. In many areas there was also evidence of additional state effort during the two-year period, although, as indicated in the Office of Education study cited above, the distribution was biased in favor of suburban areas over center city districts.

It is further suggested that increased emphasis on community control and decentralization of educational decision making will offer additional assurance that federal funds will be used for additional services, for example, in compensatory education, rather than as a substitute for state and local effort. The fact that subsidies would be reflected in lump-sum budgets of each community school, as Levin has pointed out, would make possible a true social accounting for higher level aid for such purposes as compensatory education.[9] Such local accountability assists in maintaining the principle that federal aid should strive for uniform national equalization of social benefits, especially in the provision of services to disadvantaged children, who often find their way to cities as the result of high population mobility. At the same time, community control offers desirably weak constraints to the kind of consumer choice and local innovation that make possible optimal satisfaction of individual preferences and needs for education according to conventional principles of allocative economics. Nevertheless, refinement of national policy criteria by which aid can be distributed to attain these objectives in a multi-level governmental system, like development of criteria for the evaluation of the total contribution to national goals of educational expenditures, must continue to depend on independent initiative and comprehensive analytic effort within the educational profession itself.

[8] U.S. Department of Health, Education, and Welfare, Office of Education. *An Examination of Federal, State, and Local Expenditures for Elementary and Secondary Education, 1965 to 1967.* Washington, D.C.: the Office, 1969. (Unpublished)

[9] Levin, Henry. *Financing Community Schools.* Washington, D.C.: Brookings Institution, 1968.

Contemporary Challenges: Monitoring Human Inputs into the Schools

Austin D. Swanson

SCHOOL FINANCE ANALYSTS have traditionally been concerned with the efficiency of school operations. During the early years of this century the concern led to an obsession with keeping costs down, with little recognition that this action might diminish the effect of schools on children. In the 1930's, sparked largely by the insights of Mort, we became aware that there was variation in the effectiveness of schools and that generally those schools which produced better results were also higher consumers of economic resources.[1] It was also noted that high-expenditure school districts tended to be those with large portions of their populations being business and professional people who were well educated and earned high incomes.

Studies of the present decade have begun to indicate the limitations of economic resources in affecting the educational achievement of children, especially those from lower socio-economic backgrounds. These more recent studies have provided us with a better understanding of what we have long known about the general relationship between community characteristics and school effectiveness. They dramatically demonstrate that as school financial analysts we can no longer limit our attention to economic inputs alone. We must also address ourselves to the effects of variations in human inputs upon the abilities of schools to reach their stated or implied objectives. We can no longer ignore the fact that to optimize the efficiency or effectiveness of the schools, we must be able to control the allocation of human inputs as well as economic inputs.

In their pioneering study of Pennsylvania school districts, Mort and Cornell in 1936 discovered the then revolutionary fact that two-thirds of the variation in the adequacy or quality of school services could be explained by the characteristics of the community and its population.[2] The relationship held up in over a generation of studies and in samples ranging from a single metropolitan area to

[1] Ross, Donald H., editor. *Administration for Adaptability*. Revised edition. New York: Metropolitan School Study Council, 1958. 643 p.

[2] Mort, Paul R., and Cornell, Francis G. *American Schools in Transition*. New York: Teachers College, Columbia University, 1941. 546 p.

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the United States as a whole.[3] The rationale which Mort developed to explain this effect was that communities with high-quality human resources allocate larger amounts of economic resources to the schools than communities with low-quality human resources. This rationale directly attributed the better output to the higher allocation of financial resources.

Subsequent studies, notably those of James[4] and Thomas[5], made of Project Talent data have found that the effect of community or human inputs upon pupil achievement remains as strong as it was in the Mort studies.

Following the theory that increased expenditure yields increased output per pupil, our response to the plight of ghetto children was with money, at first with trickles of state and local money and then with the massive amounts of federal money through Title I of the Elementary and Secondary Education Act. Then came the Civil Rights Commission Report, *Racial Isolation in the Public Schools*,[6] the Coleman report[7] and all the controversy that surrounded it, and a myriad of more limited studies, 300 of which were summarized by Weinberg.[8] The general thrust of these studies is unmistakable. Despite high costs, the yield of compensatory type educational programs is slight when applied to groups of children from predominately lower socioeconomic environments. The yields are greater and the costs are less when lower socioeconomic children are educated in an environment dominated by middle-class children. To those concerned with optimizing the effect of economic resources devoted to education, the implication is clear. To get the "biggest bang from the educational buck" decision makers must be able to control the mix of pupil inputs as well as of economic inputs.

In trying to gain a better perspective of the findings of the 1960's, the studies of the 1930's, 1940's, and 1950's are not totally irrelevant. During the earlier period, the deprivation was not in the cities but in rural areas. Two basic tactics were used to overcome this deprivation: school district consolidation and increasing economic resources allocated to rural schools. School district consolidation served several purposes. It produced larger units which could realize economies of scale, and enlarged the local tax base. But probably the most important effect was to bring together the laboring class children of the farm with the middle-class children of the village. It also extended the fruit of the village middle-class leadership to farm children. The results have been good in most rural areas where there is a significant middle class. The same cannot be said for other areas such as Appalachia.

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[3] Ross, Donald H., *op. cit.*

[4] James H. Thomas, and others. *Wealth, Expenditures and Decision-Making for Education.* Stanford, Calif.: Stanford University, School of Education, 1963. 203 p.

[5] Thomas, J. Alan. *Efficiency in Education: A Study of the Relationship Between Selected Inputs and Mean Test Scores in a Sample of Senior High Schools.* Doctoral dissertation. Stanford, Calif.: Stanford University, 1962.

[6] U.S. Commission on Civil Rights. *Racial Isolation in the Public Schools.* Washington, D.C.: Government Printing Office, 1967. 276 p.

[7] Coleman, James S., and others. *Equality of Educational Opportunity.* U.S. Department of Health, Education, and Welfare, Office of Education. Washington, D.C.: Government Printing Office, 1966. 737 p.

[8] Weinberg, Meyer. *Desegregation Research: An Appraisal.* Bloomington, Ind.: Phi Delta Kappa, 1968. 314 p.

In addition to the need for a balanced social structure in school districts, these earlier studies pointed to the importance of community involvement in the educational process, particularly when the principal means of financial support originated outside the district. Mechanisms were invented for accomplishing this, including elected school boards, budget referendums, bond referendums, community advisory committees, and even the so-called community school.

The stage has changed, but the actors are basically the same. The actors are people, and they function approximately the same as people did a generation or two ago. Once again the people are divided in school districts according to their socioeconomic status, but now the division takes place in huge urban complexes instead of sparse rural areas. The people are divided into ghettos in urban centers and into small homogeneous suburbs of varying reputation on the fringe. While there are some blue-collar suburbs, the tendency for high-income, low-cost citizens to live in the suburbs and for low-income, high-cost citizens to live in the core is well documented.[9] Even the core's monopoly on industry, business, and retail activity has been broken.

People apparently still desire to participate directly in the school's policy making. The school districts of most suburbs are small enough to permit this, but the core ghettos are parts of huge city school districts whose nineteenth century bureaucratic structures permit little community involvement. So the residents of core cities are now hard at work trying to decentralize the school bureaucracy and in essence to make it look similar to that of the suburbs.

Can we support this further fractionalization of our nation? I think not. I recognize the importance of citizen involvement. I subscribe to the concept, but I do not subscribe to the imposition of a political structure designed for a sparse rural setting upon densely populated urban communities. Total decentralization would institutionalize a fragmented society. It would secure the economic and social advantages of the affluent suburbs while permanently legislating the existence of blue-collar suburbs and poverty ghettos. The hope of restoring to the schools their earlier functions of social integration and facilitation of social mobility would be lost.

The alternative to decentralization is centralization of the cities and suburbs. Yet, an extension of existing bureaucracies in big city school districts today would lead to total catastrophe. Centralization would distribute the wealth more evenly. It would give decision-makers control over the mix of pupil inputs. It would diffuse the energies of middle-class leadership. It would not permit meaningful citizen participation, however, and it would probably level educational services to mediocrity. Such an expanded bureaucracy would inevitably fall of its own weight.

The solution to the governance of education in metropolitan areas lies with neither of the simplistic notions of centralization or decentralization. The eventual solutions will probably contain elements of each. The time has come to carefully examine the supportive functions of public education to determine under what condi-

[9] Advisory Commission on Intergovernmental Relations. *Fiscal Balance in the American Federal System.* Vol. 1. Washington, D. C.: Government Printing Office, October 1967. 355 p.

tions and at what levels each can most effectively be carried out.

I see no alternative to the further centralization of the financing function. This will take the form of increased federal and state aid, but it also needs to involve some form of metropolitan coordinating board with taxing and borrowing powers. Concurrent with centralized finance is a need for decentralization of administration to intermediate and school levels. The refinement of planning, programming, budgeting systems (PPBS) techniques provides a promising management framework within which the simultaneous movement in these apparent diverse directions can take place.

In decentralizing administrative decisions to the school level, a variety of approaches to staffing and curriculum should be facilitated and encouraged. Experience to date in the evaluation of alternative teaching methods shows that 99 times out of 100 there are "no significant differences." It is highly improbable that experimenting with new instructional forms will harm children. However, we need to maximize the possibility of discovering those one in a hundred methods which do make a difference, which may be more efficient and more effective.

Neither centralization of finance nor decentralization of administration insures meaningful and direct public participation or guarantees against general mediocrity. Two additional devices should be considered for accomplishing these objectives: evaluation units attached to both the metropolitan and the intermediate boards and open enrollment. The evaluation agencies should regularly evaluate the programs of a school against the specific objectives developed by the school for itself within the general policy framework established by the metropolitan and intermediate boards. Such data are needed for making decisions about the wisest use of resources and constitute an important support of PPBS. Granting parents the right to select the educational institutions which they believe are most appropriate for their children provides a degree of involvement unknown in present school governmental structures and at the same time injects a large degree of competition into our present monolithic systems. Voting for school-board members and participating in various referendums are at best symbolic exercises in densely populated metropolitan areas. Consumer freedom of choice constitutes a far more meaningful and powerful vehicle for participation. Such an arrangement would permit school advisory committees to take on new importance and vitality because their members would no longer be a captive clientele. Their membership would consist of persons who possessed the power to remove their children from the institution if they were not satified with its services and to place them in competing institutions.

Without some constraints, open enrollment would result in segregation similar to that which we know today. The reputation of a school is determined largely by the reputation of its clientele rather than by what the school does to or for its clientele. A monitoring mechanism would be needed for insuring that the enrollment of a school approximated the socioeconomic composition of its metropolitan area. By making the clientele of schools similar, school selections would more likely be made on the basis of school accomplishments. This would undoubtedly mean the

end of the neighborhood school, but not the end of schools. It would probably mean the eventual consolidation and coordination of facilities on a series of campuses.

All of this means that as school financial analysts we have to expand our thinking. For too long we have accepted the present system axiomatically. We have attempted to shore up with economic resources a system which is irrelevant to urban America. In so doing we have only temporarily pushed back the day of restructuring metropolitan school systems. The specific pattern of this restructuring will vary to accommodate the unique characteristics of each metropolitan area, but there appear to be certain provisions which will be common to most:

1. Centralization of the financing function
2. Decentralization of the administrative function
3. Decision-making through a PPBS structure, including an extensive cost-effectiveness analysis support system
4. Competition among units by providing parents freedom of choice of school
5. Control of the socioeconomic mix of pupils in schools and in programs
6. Consolidation of school facilities on a series of campuses.

In meeting the challenge of the financial needs of metropolitan areas, we must carefully consider the very important effects of human inputs as well as economic inputs.

Decentralization in New York City

Lloyd L. Hogan

THE MOST SIGNIFICANT social dynamic in the nation today (apart perhaps from the Vietnam War) is the urbanization of American life. This process, however, is not new. Indeed it is part of a series of dramatic historical events: (a) the international migrations to North America primarily from Europe, (b) the transformation of the economy from dependence on agriculture to the organization of a strong industrial base, (c) the vast migrations of people from south to north during the inter-war years, and lastly (d) the internal conquest of the west that gave America its distinctive character. The result of all these movements has been the formation of concentrated clusters of people which we call cities and metropolises.

This process will continue unabated into the 21st century. It is estimated that by 1980 over 90 percent of the American people will be living in urban areas. The figure in 1920 was 51 percent, and in 1967 it was 71 percent.

These vast and dramatic movements of people into the urban areas, while resulting from the same sets of social forces, exhibit certain special characteristics in different periods. The underlying pattern has been the movement of the new migrants into the center of the city in proximity to the commercial and industrial establishments. At the same time the more affluent people have moved away from the center to the outer fringes.

Prior to World War II, the political boundaries were sufficiently broad so that everyone, migrant and affluent residents alike, continued to remain within these boundaries in spite of migration patterns. Since World War II, however, the political boundaries have remained stationary while the migration patterns continue unabated so that sooner or later the population grows beyond the confines of these boundaries, spilling over into the surrounding suburban towns. In other words, the political boundaries of the municipal corporation more and more tend to be at variance with the social realities of population growth and change.

In recent years the peculiar characteristics of the dynamics of population change have been that the new migrants are Negroes from the south or Puerto Ricans while for the most part the affluent segment of the population has been white. The result

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has been a changing complexion of both the central city and the suburban town, the central city becoming more and more Negro and the suburban areas becoming predominantly white middle class.

To illustrate close to home in New York State—during the 1950's the population of New York City remained almost stationary because the outward net migration of 800,000 whites matched almost completely the net inward migration of Negroes and Puerto Ricans. The surrounding metropolitan areas grew by leaps and bounds. Another example is the growth of Leavittown in Nassau County which did not exist before World War II and which was 50 percent larger in 1960 than the country's biggest city (Philadelphia) was in 1790. By 1960, Leavittown had over 65,000 inhabitants, almost all white. This example could be multiplied many times throughout the nation, particularly in the older cities of the East.

The meaning of these events for education in states like New York is that the central city will continue for a long time to be a Negro populated city; on the other hand, the urban areas surrounding the city will continue for quite a while to be white. Quality integrated education, therefore, as a meaningful educational policy has not been realized in the past and cannot now be realized.

Perhaps the most dramatic achievement in education in states like New York has been the reorganization of small and ineffective districts outside the cities into viable and quality educational systems. This was achieved through many devices. Among them were state-supported transportation systems, strong and pervasive supervisory activities, the construction of new or improved physical facilities, and a series of complex financial subventions designed to stimulate specific aspects of state policy. In these activities the full machinery of the state was used with the self-imposed restriction that local autonomy was the order of the day. The result has been that good school systems were developed, and the local community played and continues to play a decisive role in running those systems. Yet, while the "quality" element was realized, these schools continued to be almost exclusively white. Consequently the "integration" concept was really never pursued nor realized.

In New York City, for example, there are approximately 550,000 nonwhite public-school pupils out of a total public-school population slightly in excess of a million, and the trend toward a larger proportion of nonwhite pupils is continuing. More important, however, is the fact that in certain areas of the city—South Bronx, Bedford Stuyvesant, South Jamaica, and Harlem—the nonwhite public-school population is approaching 100 percent.

The estimated educational underachievers of the city are placed at slightly in excess of 45 percent of the total school population. Similarly, the concentration of these pupils with great educational needs approaches 100 percent in some parts of the city.

The meaning of all these events is that a policy which has proved itself effective in the past ought to be pursued. The elements of this policy seem to be (a) a reorganization of school districts of a sufficient size to provide a comprehensive educational offering, (b) local autonomy involving strict community control of the schools, and (c) state financial subventions designed to develop a "qual-

ity" education as distinct from "integrated" education. A policy involving these elements certainly worked throughout the rest of the state in the past, and there is no reason why it should not work in the large cities now.

Strategy for Dealing with Decentralization

The first and fundamental element in the strategy for dealing with decentralization of New York City is that the state commit itself strongly and unequivocally to the principle of decentralization. The people of the local communities of the city are deeply committed to this concept and will resort to drastic measures as a reaction to state, city government, or central board actions which they believe to undermine the concept of decentralization.

Furthermore, as we pointed out earlier, this is the announced policy and practical activity of the state as it applies to schools in the state outside New York City. Certainly we have been committed to the concept of local autonomy in the conduct of school affairs and have liberally provided the resources to local autonomous school boards to develop educational programs in their own image.

Another important element of such a strategy must be that the state commit itself to an unambiguous policy of quality integrated education in the decentralized districts. The brute facts of life at this moment in history may preclude immediate integration. These conditions arose from the population dynamics alluded to earlier. Indeed, the solution of this component must come from the major thrust of the economic, political, and social institutions with a minor role played by education. Hence, a relentless pursuit of the "integration" component must not be used as a subterfuge for inaction.

In the past a successful policy of developing quality schools in the urban areas outside the cities has been pursued. As we have pointed out earlier, these schools have not been integrated and there is very little prospect that they will be integrated in the near future. Nevertheless, this circumstance did not deter the full mobilization of the state's resources in the development of quality schools in these areas. The same resolve must be shown in the case of the decentralized schools in New York City.

Another important element in the strategy of decentralization must be a direct and strong relationship between the state and the local school board. As part of this strategy the relationship between the local and the central boards must be correspondingly clarified and legally codified.

Also, the state should place complete trust in the ability of parents and local community groups to organize and conduct good school systems. We have done this in the past with respect to other school districts, and by and large this policy has been successful. Furthermore, in this period the confidence of the people in *the* efficacy of the power structure to provide good schools for their children is at its lowest point. The fact is that with the dramatic statistics on underachievement in these schools, the people themselves believe that they can do no worse.

Effect of State Aid on Local Taxation: A Case Study of an Oregon County

Henry Osibov

THIS STUDY WAS done to minister to the turbulence of feelings aroused by a suspected tax inequity that was felt by many in the rural area of Harney County, Oregon.[1] It was necessary to relate the feelings aroused to the collections of taxes and transfer and expenditure of school taxes collected at the local and at the state levels. The major taxes were the local property tax and the state income tax, and the major focus was the expenditure from those revenues for schools. It was necessary to unlock the secrets of who actually pays the taxes and where and for what that tax money is actually, eventually spent. Furthermore, if the study was to influence "school taxpayers' feelings," it was necessary that we expose the people who had aroused feelings to such theories as (a) measurement of the goodness of a tax; (b) contentions about what is the better measure of taxpaying ability or wealth, "true cash value of property" (TCV) or income; (c) what measure of wealth is being used and what other measure of wealth could be used; and (d) some objective basis for choosing between ad valorem value of property and personal income as the better measure of wealth.

Among the obstacles were: (a) the lack of valid information, especially about the income tax collections and transfers and final site of expenditure of all funds except local property tax levied in the districts; (b) absence of written precedent or tested procedures for abstracting the information needed; (c) necessity to communicate findings in a context that would displace the existing traditional concepts of such terms as *local taxes, state money, rich districts, equalization,* and others; stimulation of thought and analysis that might lead to consensus for political action by the Intermediate Education District (IED) Board, and the state legislature. Initially, no one knew where transfer of school monies led or where the final impact of a tax was. It had to be tracked down. The history of how it evolved is many faceted and too obscure for

[1] Osibov, Henry, and Paus, Gregory. *How Did Simultaneous Intermediate Education District Equalization and Distribution of State Support to the School Districts Effect the Impact of Taxes for Schools in 1966-67 in an Oregon County?* Eugene: University of Oregon, Bureau of Educational Research and Service, 1968.

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anyone to know. We were not sure what our study would reveal.

We began the job of identifying and accumulating totals of taxes paid in the two designated areas, Union High School District #1 and Union High School District #2. We then traced the transfers of those tax funds to other governmental bodies. It was then necessary to dissect the pools of tax money as it was divided up by shifting and to reassemble all funds from each original and intermediate source at the site (Area I or Area II) of expenditure. In layman's language, we were establishing who paid the tax money in the first place and tracing that money through middlemen to site of expenditure for public schools and thereby determining who was actually paying for education in two areas of Harney County.

Because tax matters are heavily laden with political implications, we decided early to make no recommendations based upon economic factors alone. In fact, it was our major aim to search for objective information, much more accurate than any previous information, about actual dollars of tax collections for schools from the residents of each of the two areas. To this end, we assembled taxes paid in each of the two areas in 1966-67, and expenditures for schools in each of the two areas independently and separately.

The amount of local property tax paid in each area was established by applying the millage levied to the TCV for 1966-67. Necessary refinements were made to the initial amount, such as reducing it by the amount of tax relief and discounts allowed, and adding prior taxes collected.

The state income tax was a more complicated riddle to untangle; however, actual amount paid in the two areas was secured by identifying taxpayers in each of the two areas by addresses and by computer processing of the State Tax Commission individual income tax information on tapes. The remaining 37 percent of General Fund Revenues was assumed to be paid by Harney County citizens and by the residents of the two areas in the same proportion that income taxes were paid into the State General Fund. Several officials from the State Tax Commission, the State Treasurer's Office, and the State Department of Education, were consulted to help to establish the divisions of taxes paid. A 10 percent increase in the taxes attributed to Harney County was added to what was deemed to be the highest probable level of tax payments in the State General Fund in order to

TABLE 1.—PROPERTY AND INCOME TAXES PER HOUSEHOLD, HARNEY COUNTY AND AREAS I AND II, OREGON, 1966-67

Item	Harney County	Area I	Area II
1	2	3	4
Property taxes per household	$ 425.19	$ 936.00	$ 281.00
State income taxes per household	173.05	106.32	183.35
State and local total	$ 598.24	$1,042.32	$ 464.35
Federal incomes taxes per household	699.79	340.80	755.25
Total direct taxes	$1,298.03	$1,383.12	$1,219.60

TABLE 2.—INCOME AND STATE AND FEDERAL INCOMES TAXES PER CAPITA AND PER HOUSEHOLD, OREGON AND AREAS I AND II, 1966-67

	State	Area I	Area II
1	2	3	4
True cash value of property/household	$17,587.48	$80,390.61	$19,706.10
Income/household	6,840.38	3,696.00	6,291.00
Income/capita	2,558.92	1,447.84	2,238.22
State income taxes/capita	80.50	41.66	65.23
State income taxes/household	215.59	106.32	183.35
Federal income tax/capita	337.78	144.78	268.69
Federal income tax/household	902.94	340.87	755.25

assure that Harney County tax payments to the state would not be understated.

The expenditures were collected from the audited reports of the 1966-67 expenditures of all the school districts in Area I, and all of the school districts in Area II. These, of course, were accurate reports of expenditures, but they did not conform to taxes collected, nor should they be expected to. Beginning-of-year balances and end-of-year balances are two items that would vary the amount of total expenditure either up or down from the amount of taxes collected.

Summary of Findings and Implications

Area I with a TCV per household of $80,391 and an income per household of $3,696 actually paid $45,988.12 more in identifiable taxes than was expended for schools in the area. Area II with TCV per household of $19,706 and an income per household of $6,291 received $64,137.82 more from the state than was paid by area residents and $45,988.12 from Area I to supplement the total amount of identifiable tax revenues raised in Area II to make up the total of 1966-67 school expenditures. Area II received a total of $105,645.51 of property and income tax collected outside Area II. This occurred partially by design of basing both state equalization and IED tax collections on the TCV per weighted pupil in average daily membership (ADMW) within school districts.

Most students of economics and tax authorities contend that income is a better measure of wealth and ability to pay taxes. If the body politic in Oregon would accept income as the better measure of wealth and taxpaying ability and equalized school costs accordingly, Area I would enjoy net receipts above taxes paid and reduced tax payments.

Table 1 indicates that Area I residents paid $77.03 less income tax per household than Area II residents; and more than three times as much property tax per household as Area II residents paid. The most dramatic revelation was that the rural households paid $936 of property tax out of reported income of $3,696 per annum. More than one-fourth of income was spent to pay property taxes. This is part of the way of life of ranchers who in their own words, "live poor to die rich."

Under the presently accepted property-value thesis of measure of wealth, Area I pays a little more than double

per household of combined property and income tax paid by residents in Area II. When federal income tax per household is included, most of the existing lower taxes in Area II disappear. However, Area I residents still pay $163.59 more in total direct taxes per household than Area II residents.

Considering total tax payments, present tax collections treat the two areas as if Area I has greater taxpaying ability. However, by the income standard, Area I is being subjected to a tax over-burden. The Area I tax over-burden produced by the property-value measure of wealth now used is reduced substantially by the proportionately large transportation grants to Area I, the lower income tax paid and the Area I receipts from state income tax relief.

A major implication of the findings of this study with state-wide application is the depiction of tax treatment of the poor (low-income and property-poor) segregated in a low-income area within one county. How the unsegregated low-income household (not property-poor) fares in a more wealthy (by income measure) area under the present tax system could be determined. Some light by implication is also shed upon how the low-income family would fare under equalization plans based upon level-of-income measure of wealth if all taxes were collected on income base. Some cautions are also in order: (a) How valid a measure of farm income is the taxable income reported for federal income tax? (b) Do absentee landlords own large portions of the rural land area and thereby increase per-unit TCV far more than in other areas of the state? (c) Do satellite rural residents receive free benefits at measurable levels from services paid for by hub-city taxpayers? (d) Do rural area residents provide privately for themselves, services that city folk pay for and use through the public sector?

Items for Consideration in Advocating Equitable Taxation

The measures of income and TCV of property in this study are mean amounts for residents of each area. Means are useful measures for comparison, but the ranges yield greater extremes of advantages and disadvantages that penalize and reward individual taxpayers. In this perspective, reflect a moment upon what is the lot of the taxpayer with an $1,800 income in relation to the one with a $9,000 annual income in each of the two areas.

The State Tax Commission computer runs indicate that 34 percent of Oregon income tax returns, 250,000 of 731,000 returns, had less than $3,500 annual income. What is the taxes-paid impact on such a household as compared with the household with a $7,000 income living in Area I? in Area II?

What will be the effect of the proposal to use the sales tax to provide direct tax relief from property tax? [2]

The sales tax base is the amount of money each household spends. That means that a selected part of income, the money expended, is taxes instead of a tax-base of the amount one earns: income as the tax base, or the value of property owned as the property tax base. The sales tax rate is uniform, all taxpayers pay the same percentage of money spent regardless of how much is earned, and regardless of how much of it is expended and becomes taxable.

[2] Editor's note: The voters in Oregon defeated the proposal to enact a sales tax for property relief on June 3, 1969.

The sales tax will shift the tax burden. Property-poor taxpayers in Area I will get some relief. In our objective analysis of the tax shift, other households even less able to pay will supply much of the tax money to provide the property tax relief. Few will pay one-fourth of their income in sales tax, but at least as many will pay in more marginal dollars, dollars more desperately needed to purchase subsistence level necessities.

Federal Legislation: The NEA Posture

Mary C. Gereau

THE NEA LEGISLATIVE Commission has adopted a program for the 91st Congress that emphasizes three major priorities:

1. Full funding of existing categorical aid programs, especially Title I of Elementary and Secondary Education Act (ESEA).

2. Enactment of general federal aid to the states for elementary and secondary education, with the basic grant to be $100 per school-age child in each state, and a supplemental equalization grant based on the ESEA Title I formula. The total is estimated to be $7.6 billion. Not less than 50 percent of the basic grant is to be used for teachers' salaries. The supplemental equalization grant is for urgent unmet needs. This is not proposed as a substitute for present categorical aids, but rather for acceptance on the part of the federal government that it has a responsibility, along with state and local governments, to finance education.

3. Enactment of a federal professional negotiation law for teachers under the U. S. Office of Education.

In addition, NEA is supporting legislation to expand and extend the school lunch and breakfast program to all disadvantaged children, to establish a Bureau of Early Childhood Education in the U. S. Office of Education, and to transfer Indian education from the Department of Interior to the U. S. Office of Education. (The last two items are in keeping with the objective of creating a Cabinet level Department of Education.)

The 91st Congress will be concerned primarily with tax reform and social security. In this area the NEA is concerned specifically with securing the right of deduction, from gross income of teachers' educational expenses for inservice education for tax purposes and in increasing the retirement benefit tax purposes, for those retiring under public systems other than social security, to a figure comparable to that of social security recipients. We also are seeking to extend Medicare coverage to teachers not covered by social security.

In addition to advocating full funding of existing programs, such as ESEA, the Education Professions Development Act, the Vocational Education Act of 1968, and the Higher Education Act student aid programs, the NEA also seeks adequate appropriations for the Department of Defense Overseas schools, for the education of Indian children, and for the Model Cities program.

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The NEA seeks the enactment of amendments to its Charter, as required by the Representative Assembly, to abolish the NEA Board of Trustees and transfer its duties to the NEA Executive Committee.[1]

The NEA is also involved in securing constitutional reform to lower the voting age to 18 years. The Student NEA furnishes the leadership in this area, with support from the NEA Legislative Commission and staff, the Association of Classroom Teachers, and the NEA Committee on Citizenship. And the NEA will continue to work for a copyright law that will not restrict teachers in fair use of copyrighted materials of any kind.

In testimony before the House Education and Labor Committee on February 6, 1969, Mrs. Frances M. Carnochan, Chairman of the NEA Legislative Commission said:

> The NEA is intensely concerned, as we know are the Chairman and members of this Committee, that the ESEA be improved and expanded to accomplish its vital objectives. We are proud to have been involved in the development and initial enactment of this legislation and pledge our continued concern and support.
>
> For the record it must be said, however, that the NEA, representing some two million teachers of the National and state affiliated associations, is convinced that ESEA, alone or in concert with other legislative measures such as the Educational Professions Development Act, the National Defense Education Act, etc., cannot achieve for American education the hopes and aspiration that the nation has for the education of its youth. In addition to these programs, which properly concentrate primarily on the needs of the disadvantaged, a massive financial effort on the part of the federal government to join with the states and local communities in providing adequate funds for quality education of all children must be forthcoming and soon. We have been saying this for well over 25 years. We believe that, had the federal government responded to our pleas, we would not now be faced with the crisis in our schools which has resulted in the need for such programs as ESEA. We will expand this thesis in other hearings at a later date. The remainder of our comments in these hearings will be related to HR 514 (extension of ESEA).

As you know, in late summer of 1968, bills were introduced in both the House and Senate based on NEA's "$6 Billion General Federal Aid" proposal. In this, the 91st Congress, the program will be introduced by Representative Carl Perkins (D-Ky.), Chairman of the House Education and Labor Committee. We had hoped that the bill would be introduced by this time, but Chairman Perkins wishes to move the ESEA amendments through the House before moving on to general federal aid. From comments by various members of the House Education Committee, it is apparent that Rep. Perkins will have strong allies for the general aid bill.

However, the real test for education measures will be in the Appropriations Committees. The Nixon Administration is faced with the same fiscal picture as the Johnson Administration. The Vietnam hostilities continue. Pressure for the Anti-Ballistic Missile (ABM) program, despite widespread public opposition, will drain off any funds that "peace" may leave available in two or three years. The space program supporters have already launched a massive campaign for increased billions in the next few years. The demands for urban programs cannot go unheeded without incurring additional confrontation such as marred the cities in 1967. The appeal of "law and order" indicates large commitments of federal funds for en-

[1] Editor's note: This bill was passed June 30, 1969, and signed by the President.

forcement, if not for curing the root causes of crime. The repeal of the 10 percent surtax is already being plaintively called for. Tax reform, if it comes at all, will not necessarily increase federal revenue. In addition, we have the problems of air and water pollution, continuing foreign aid, and wage and salary increases for federal employees. The anticipated "surplus after Vietnam" is, in the minds of many, a myth, since there is an already long list of claimants lining up.

Does this mean that NEA is merely going through the motions in preparing a general federal aid bill? Not at all. The NEA Legislative Commission is in dead earnest. The NEA Executive Committee and Board of Directors are committed to this program. But these bodies alone cannot secure this legislation. The active, vocal, continuing, dedicated, persistent support of every member of the teaching profession is required. If the teaching profession, and its allies among parents, school boards, and consumers, concentrates on impressing the Congress with the vital necessity of general federal aid to education, along with the categorical aids designed to meet special problems, this legislation can be enacted. But if the profession continues as it has in the past, to fragment into a myriad of pressure groups supporting only funds for the handicapped, or for science, or art, or for audiovisual programs, or for, yes, research in which certain constituencies are most personally interested, we will be at the tail end of the long line of claimants as we have been for so long.

I am personally convinced that at any time the organized unified teaching profession can do anything it wants to do—if it tries hard enough. The key words are *organized* and *unified*. The time is now. The desision as to whether the country has general federal aid to education is not up to the NEA Legislative Commission. It is up to you—and you—and you.

Federal Education Programs

Emerson J. Elliott

THE BUREAU OF THE BUDGET works for the President of the United States. It does not operate a program. Its sole purpose is to assist the President in any way that will help him to operate the federal government. Presidents have many objectives, not all of them consistent. A President wants to move the nation's educational system forward. He also wants a strong national defense, a low rate of unemployment, a fair income for farmers, health, and safe cities. He must pay the interest on the national debt and meet the statutory requirements for social security. But he also wants to check inflation and prevent deflation, to have a *low budget*—preferably balanced or with a surplus—to keep down federal employment.

The Bureau helps the President by offering him alternatives to achieve as many of his objectives as possible. This is done through a process of evaluating, comparing, contrasting, and reviewing. The job of complementing the work of the experts and professionals in the agencies is achieved through knowledge of *how to make the levels of government* work, a view *across* the government, and providing a place to air conflict and seek a way of resolving it.

Questions of public policy are not resolved within the mysterious depths and the anonymity of the Bureau of the Budget, but are referred to the White House and the President for decision. The chief product of the Bureau of the Budget is the *Budget for the United States Government,* in which the President's decisions are announced.

The President's Budget

The budget sets forth the President's plan for federal programs to help meet the whole range of the nation's domestic and international responsibilities. The President presents his budget to the Congress each January, six months before the start of the fiscal year. This technical and forbidding document is not a forecast of the revenue measures or budget requests which the Congress will approve or of the expenditures which will finally be made. Rather, it indicates the President's judgment of priorities and of the best mix of *relative* levels for each program among the hundreds operated by the federal government. It takes into account the demands for federal funds as well as the revenues available and the effect of federal spending on the economy. It

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is the one device in the federal system for forcing all program decisions into order.

The budget submitted to the Congress by President Johnson before he left office proposed for the fiscal year beginning July 1, 1969, federal outlays of $195.3 billion, an amount equalling about 20 percent of the Gross National Product. It called for a surplus of $3.4 billion and a continuation of the 10 percent surtax. It was characterized as a budget which would provide for "the defense of freedom" while allowing the nation to "move ahead in meeting the pressing needs we face at home," yet "stem the increased price pressures we have experienced in the past few years." President Johnson said, "While adhering to a restrictive expenditure policy, I am making reasonable provision in the 1970 budget for the requirements of ongoing programs, proposing reductions wherever possible and recommending some selective improvements and expansions."

At the request of President Nixon, the Bureau of the Budget asked each federal agency to review its plans for spending in fiscal year 1970 with a view toward reducing activities of low priority and redirecting other programs consistent with objectives of the new Administration. That review is now under way, and the President's conclusions will be transmitted to the Congress within the next few weeks.

The Special Analysis on Federal Education Programs

Because the budget is so huge and complex, there has developed over the years a series of annexed reports designed to make the budget, or certain aspects of it, more clear. Eighteen special reports were prepared in connection with President Johnson's 1970 budget and drawn together in a volume called *Special Analyses, Budget of the United States, Fiscal Year 1970.* This includes, for example, reviews of federal credit programs, civilian employment, manpower activities, health programs, income security, aid to state and local governments, public works, and federal education programs. The Special Analysis on Federal Education Programs most concerns us here today.

Federal education programs might be described as serving two main purposes. The first is to support education *per se.* Activities included under this heading would be the programs of the Office of Education and the National Science Foundation, Head Start and Follow Through under the Office of Economic Opportunity, college housing loans, and education of American Indians. The second purpose is—through the use of resources of educational institutions—to advance knowledge and achieve other national objectives. Included here are such diverse activities as support of research at universities to extend medical knowledge, GI benefits which help returning servicemen attend school or college, training of manpower to improve delivery of health services, and professional training of military officers.

Some 400 federal activities are included in the Analysis, and the total for fiscal year 1970 approximates $10 billion. I shall try to give some perspective on these programs by describing federal funds according to five different dimensions.

A Decade of Federal Aid to Education—1960 to 1970

Outlays for federal education programs are estimated to cost very nearly $10 billion in 1970, an amount representing 5 percent of the total federal budget. Education expenditures have

grown much faster than the federal budget as a whole: The federal budget has roughly *doubled,* from $92 billion to about $195 billion between 1960 and 1970 while education expenditures have grown *five-fold,* from $2 billion to $10 billion.

The upsurge in federal outlays was sharpest in fiscal year 1966, the first fiscal year after enactment of many of the now well-known landmark laws for federal aid to education. In that single year federal funds increased by more than $2 billion, an increase of 60 percent over 1965. Neither the absolute dollar increase nor the growth rate has been so great since that year, but by 1970, $4 billion will have been added to the 1966 level.

Federal Objectives in Education

Reviewing the composition of the increases in federal funds for education over the decade, one can identify two principal objectives which the federal government has pursued: first, an opportunity for the best education which the nation can offer to each individual, suited to his abilities and interests and without regard to his family income, race, or place of residence; and second, an improvement in the quality of education through experimentation with new materials and methods, new ways of using and training personnel, and new organizations designed to ensure regeneration and renewal of the nation's educational institutions.

Activities which are addressed to the first objective—*expanding educational opportunities for all*—include grants to improve education of the poor and the handicapped, to expand college facilities, and to provide financial assistance particularly for college students from low-income families. Also contributing to this objective are GI benefits and social security payments for college-age children of retired, deceased, or disabled social security beneficiaries. Federal activities promoting the second objective—*innovations*—have brought about an expansion of experimental, demonstration, and faculty training programs, including such new departures as the educational laboratories, Teacher Corps, the National Foundation on the Arts and the Humanities, and the Corporation for Public Broadcasting. Federal expenditures for these two objectives are estimated to total $4.9 billion in 1970, one-half of the total federal outlays for education. While GI benefits totaled about $1⅓ billion in 1960, almost all of the other programs which make up this one-half of the federal outlay for education have been enacted by the Congress since 1960, and most of those within the past four years.

Federal Funds in Relation to Institutional Financing

Another useful indicator of federal activity in education is the share of receipts in educational institutions which are derived from federal sources. In elementary and secondary schools between the fall of 1964 and the fall of 1969, the federal share has about doubled from about 4 percent to about 8 percent. In higher education the figure has been more constant, ranging around 22 percent. These measures perhaps obscure more than they reveal. The federal government is supporting a very large proportion of some activities, much less of others. For example:

- Federal funds represent about two-thirds of *all* research and development in institutions of higher learning.
- Federal support for education research and development probably rep-

resents more than 90 percent of the national total.

- Federal funds used for purchase of school equipment and materials have been estimated to equal as much as one-half of the total annual sales of such equipment and supplies.
- Other areas where federal assistance is a predominate factor include student aid, graduate fellowships, and teacher training.

I believe it would be reasonable to conclude that the federal share of financing of education, now equal to about one-seventh of the budgets of educational institutions in the nation, has been increasing and is of extraordinary importance in a number of areas.

Federal Funds by Agency

Another dimension by which to view federal education programs is according to the federal agency which administers the funds. It is usual for the public to consider the Office of Education as the government's chief education agency. And so it is. By a large margin the Office of Education programs are collectively the largest part of the government's effort. Yet, the Office accounts for only $4 out of every $10 in federal education outlays. Office of Education grants are predominant at the elementary and secondary level where they represent 70 percent of the total federal outlays; OE programs account for less than one-fourth of the expenditures for higher education. Other programs bring the Department of Health, Education, and Welfare (HEW) total portion to nearly 60 percent of the total federal outlays for education. Included here are the medical research and health professions training programs of the Public Health Service, and social security benefits for students.

The Department of Defense accounts for about $1 in $10, largely for graduate and professional training and for academic research in institutions of higher education.

The remaining 30 percent of federal funds is scattered through about 20 federal agencies ranging from the National Science Foundation (NSF) and the Office of Economic Opportunity (OEO), through the Veterans Administration (largely for GI benefits) and the fledgling National Foundation on the Arts and the Humanities, to the Library of Congress.

The fact that so many federal agencies are supporting education activities is not, in my view, so much a demonstration that the federal government is disorganized as it is a demonstration of the importance of educational institutions (particularly higher education) for performance of research and graduate training which are essential to accomplishment of the missions of each of these agencies.

Federal Funds by Educational Level

The primary description of federal programs in the federal Analysis accompanying the 1970 budget was based on outlays for education by level. The most dramatic growth over the past decade has been in programs for support of elementary and secondary education. These expenditures, estimated at $3.4 billion for 1970, are predominately for improving education of the disadvantaged—OEO's Head Start, and Office of Education Elementary and Secondary Education Act (ESEA) Title I and handicapped programs. Research projects, the new anti-dropout program, teacher training efforts, and now, under recent

amendments, vocational education also contribute to this objective.

The largest category of federal support accounting for more than half the total, is higher education. While the number of federal agencies involved is much greater than the number participating in elementary and secondary programs, the federal assistance for higher education falls into more easily described groups:

- $1.9 billion provides for grants and loans to college students. About three-fourths of this amount is for student support at the undergraduate level, one-fourth primarily for fellowships at the graduate level.
- $1.5 billion supports academic research in institutions of higher education. The largest portions are under the auspices of HEW, Defense, and NSF.
- Another $1.5 billion provides for college facilities and equipment (largely through academic facilities grants from the Office of Education and housing loans from the College Housing Loan program) and for support of current operations in colleges and universities (primarily through cost-of-education allowances paid as a part of fellowship and traineeship grants and training of students in the health professions and rehabilitation services).

The total of $5.0 billion compares with $1.0 billion in 1960 and $1.7 billion in 1964. The remaining $1.4 billion in federal support for education is divided among support for adult and continuing education (especially the extension programs of the Department of Agriculture), technical and professional training of public employees (predominately military), and aid to foreign students attending colleges and universities in the United States and to educational institutions in foreign countries (through AID, Peace Corps, and the Department of State).

Some Present Concerns About Federal Education Programs

Against the background of federal education programs just described, I would like to suggest some personal concerns and views about education programs at this point in time.

First, what are we getting for our money? To cite one example, it seems to me we see daily in the press the same or even harsher criticisms of the schools and what they are failing to do for the disadvantaged than we did before the advent of federal programs enacted a few years ago. We find local taxpayers increasingly less inclined to support local school bond issues. According to the Office of Education the bond approval rate for the first six months of fiscal year 1969 is 50 percent, and that the comparable rate over the past decade has been 73 percent. We are unable to say what ingredients of the educational system make for success. In my opinion educators at all levels will increasingly be called upon to account for their stewardship in management of public funds in terms of product—educational attainment of children. On the other hand, there have been some highly interesting experiments. Under a contract with the Office of Education, the American Institutes of Research identified 21 programs from all across the country which had produced significant cognitive achievement gain on the part of pupils enrolled in them. I believe there will be more experimental projects to develop models for use in the classroom and to try them out on a systematic basis so that in the future we can say what

components of education make a difference.

Second, how can we better plan and coordinate our programs? The Budget Director spoke before the Governor's Conference February 27, 1969, on the subject, "New Directions in Federal Aid Policy." He made these comments:

> The Federal categorical grant—the principal tool of fiscal federalism—has had near explosive growth since 1963, whether measured in terms of the number of grants, their dollar magnitudes, or their effects on intergovernmental relationships.
>
> While categorical grants have proven to be effective in many instances, their rapid growth has caused serious problems in terms of:
>
> —A bypassing of elected chief executives,
> —Overlapping programs and duplication at the State-local level,
> —Inflexibility and distortion of State and local budgets,
> —Additional administrative costs and program delays and uncertainties,
> —An information gap about available grant programs which is difficult to close, and the placement of a premium on "grantsmanship,"
> —Severe competition at all levels for capable administrative and technical personnel.
>
> The time has come for major reform. New intergovernmental policies of the Federal Government should move toward *responsible decentralization* which will support State and local leadership. This means placement of Federal responsibilities in our own regional and district offices as well as enlargement of State and local responsibilities in making our system of federalism fully responsive and effective.

It seems likely that education programs are among those to which the Director referred. The Office of Education alone now operates about 80 programs compared with about 17 in 1960.

Third, how can we make more effective use of the private sector of the economy? Within recent years we have witnessed initiation of a program of federal interest subsidies for loans made to college students by states or banks. Just last summer the Congress passed legislation to provide for federal interest subsidies for college housing and academic facility loans. The Johnson budget proposed that these subsidies—using the private money market instead of the federal budget—be substituted for direct federal loan capital for construction. Private enterprise might well be tapped in another way, by contracting with schools for a level of educational performance, much as they contract now to build a product meeting certain specifications. There is no reason that the incentive system should not operate here in the same way that it has in other sectors of our economy.

Fourth, what will the future bring? There has been much comment lately from former Budget Director Schultze and others concerning the federal fiscal activities for the next several years. The gist of the argument is that while revenues will increase automatically from increases in individual and corporate income, much of the expansion will be required merely to offset higher costs of doing government business and for so-called uncontrollable expenses (e.g., higher social security benefits), even when allowing for phasing down the military from the Vietnam war. These observers see a more optimistic picture by 1974 than by 1971-72. The new President has made no commitments yet as to his policies, which will vitally affect the government's role in the economy and the distribution of its expenditures. But surely education must expect to be weighed among many competitors for federal funds. It should be able to show not just a nebulous "need," but real evidence that there will be success in terms of educational attainment of children.

The 1967 Census of Governments

Lynden Mannen

CENSUS BUREAU programs on governments are the primary source of comprehensive data on finances and employment of state and local governments. These governments constitute one of the most important and dynamic sectors of the national economy. Their tax yields totaled about $70 billion in calendar 1968, and their annual expenditure is at a rate well over $110 billion. These governments have more than nine million employees, or three times as many as the federal government.

Growth of the state and local sector since World War II, as measured in the national income accounts, has far outpaced that of the federal government and the private sector. While the federal government share of purchases of goods and services (GNP) moved up from 8.3 percent in 1946 to 11.5 percent in 1967, the state and local government share more than doubled, from 4.7 percent to 11.0 percent. The sharp growth of national defense expenditures associated with Vietnam during the past two years has kept federal purchases abreast of state-local growth. However, current projections indicate that state and local government purchases of goods and services will continue to rise rapidly and by 1975 may be 60 percent greater than such federal spending.

With the accelerating demands for domestic services since World War II, state and local government employment has grown by leaps and bounds. State government employment rose from about 800,000 in 1946 to over 2,300,000 in 1967, and local government employment more than doubled, from about 2,800,000 to 6,700,000. In 1967, state and local governments accounted for almost one-seventh of all non-agricultural employment, as compared with 4.1 percent by federal employment, nearly 21 percent by wholesale and retail trade, and 29 percent by manufacturing establishments. Over the past four years, state and local government employment has shown an average annual increase of about 500,000 persons, while federal civilian employment has risen only a total of 450,000 over the four-year period.

During the half-century before 1902, when the Census Office was established as a continuing agency, some state and local government data were being gathered in connection with major decennial census operations. Principal findings were issued regularly in

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reports of the "Census of Wealth, Debt, and Taxation." From 1902 until 1942 there was a separate governmental census at approximately 10-year intervals. A revised statute providing for the Census of Governments to be taken regularly each five years was enacted in 1950, but the first such project for which funds were appropriated was the 1957 Census of Governments. There was a similar Census for 1962. The 1967 undertaking is scheduled to be substantially completed about mid-1969. A few of the final major reports and the bulletins for each state will be issued in the latter half of 1969.

This Census will provide some 7,000 pages of published statistics, several times that volume of unpublished data in the form of tabulations in microfilm which can be supplied or reproduced at nominal cost, and an even greater volume of underlying figures on punch cards and computer tape records, usable for reproduction or special tabulations.

Basic data have been assembled from all governments in the nation, to supply national, state, metropolitan area and county-area aggregates, and comparative statistics for sizable individual governments. Like the 1957 and 1962 undertakings, this quinquennial census deals with four major subjects: governmental organization, public employment, taxable property values, and governmental finances.

Governmental Organization

The Census Bureau's directory listing of local governments has been brought up to date. Together with related research and survey operations, this has provided statistics on the numbers of local governments and public school systems with selected data on their characteristics; a summary text description of the various kinds of local governments legally authorized in each state, and of major types of governmental entities recognized as dependent agencies rather than separate governmental units; also, statistics showing numbers of popularly elected officials, by type of government; and a related summary text description of the various types of elective offices provided for by state constitutions and general laws.

Three preliminary reports on "Elective Offices," "Governmental Units," and "Public School Systems" issued in late 1967 have been superseded by the two final reports in these areas, *Governmental Organization* (Vol. 1) and *Popularly Elected Officials of State and Local Governments* (Vol. 6, No. 1).

There were 81,248 local governments in the United States at the beginning of 1967, indicating a decrease of about 10,000 from the 1962 total. Two trends are evident from similar census findings over the past 25 years: a continuing sharp decline in the number of school districts, resulting from widespread school reorganization and consolidations, partially offset by a marked rise in the number of special districts. The national total for all local governments in 1967 comprises 3,049 counties, 18,048 municipalities, 17,105 townships, 21,264 special districts, and 21,782 school districts.

In addition to the 21,782 school districts classed as independent local governments, there were 1,608 "dependent" school systems which are regarded as agencies of other governments—county, municipality, township, or state. Accordingly, in Census Bureau reports on governments, data for these dependent systems are included in figures shown for the parent county, municipality, or other type of

government applicable, rather than in figures for school districts. However, tabulations or reports for "public school systems" include data for both school districts and dependent systems, numbering altogether 23,390 public school systems.

Illinois has more local governments than any other state, with more than 6,000, and Hawaii has only 19. Seven states each contained more than 3,500 local governments, accounting altogether for about two-fifths of the local governmental units in the nation and for only one-fourth of the population in the United States. For the entire country, the number of local governments per county averaged 26, ranging from three local governments per county-type area in Virginia up to 68 per county area in New Jersey.

Some of the implications for fiscal federalism of the detailed data on number and distributions of governmental units are suggested in a report [1] of the Advisory Commission on Intergovernmental Relations:

> The large number of local governments means for example, that the property tax base—the principal support of local government—is divided sometimes rationally but often quite irrationally among govermental units. Throughout the system as a whole, some units enjoy relative local fiscal ease while others totter on the brink of fiscal exhaustion as they pass through various stages of development. The fiscally poor frequently must pressure the overlying State government for sustenance. The variety of ways in which States have responded is a credit to the ingenuity of man. The list includes shared taxes, local supplements to State imposed taxes, equalization grants, unconditional grants, and outright assumption of fiscal and program responsibility. One of the strengths of the federal system is its demonstrated capacity to adapt to the diversity of local circumstances. In the process, however, a clear, orderly division of authority and responsibilities as between States and localities has been lost.

This two-volume study, along with the Commission's new report, *State and Local Finances: Significant Features, 1969,* provides extensive information on the needs and ability of state and local tax sources to respond to ever-increasing demands and costs of government services. It also outlines policies designed to strengthen the financing of various components of our federal system.

Taxable Property Values

This second major phase of the Census of Governments concerns the base for property taxation which is by far the largest single revenue source of local governments. This project deals with valuations officially set as of 1966. The Volume 2 report, *Taxable Property Values,* provides several sets of data, including statistics on assessed valuations, by state and county, and for major individual cities, by major types of property; estimated distributions, state by state, of taxable realty by use class; and findings from a sample survey of real estate sales recorded during a 6-month period of 1966. Findings from this sales survey include, for the various states, by use-class of realty, the number of measurable sales, assessed value, sales price, and indicated assessment ratio; and also, for the several hundred largest local assessing areas, sales ratio data based on measurable sales of single-family houses.

The report also supplies, for the first time, comparative statistics on nominal and effective rates of all general property taxes imposed on single-family houses in 122 major city areas,

[1] Advisory Commission on Intergovernmental Relations. *Fiscal Balance in the American Federal System.* Vol. 1. Washington. D.C.: Government Printing Office, October 1967. p. 72-73.

and in "balance of county" for counties overlying 63 of the major cities. These findings relate to total general property taxes imposed within each city area or outlying county area by all taxing jurisdictions.

Gross valuations of property subject to local property taxes in the United States increased from $280 billion in 1956 to $499 billion in 1966, the report shows. Exclusions of assessed valuations granted special exemptions reduced the 1966 amount subject to taxation by nearly $15 billion to a net total of $484 billion. Of this amount, $42 billion was for state-assessed property (mainly railroads and other utilities), and $64 billion was for locally assessed personal property, such as motor vehicles, business inventories, and farm livestock. The remaining $393 billion, representing 78 percent of the property tax base, was locally assessed real estate.

Some 75 million separate pieces of real estate were listed on local assessment rolls. More than half of these (42 million) were nonfarm residential properties, and about one-fifth were acreage and farm plots. Vacant lots number about 14 million properties. Real estate used for commercial and industrial purposes—stores, factories, hotels, and the like—makes up only slightly more than 3 percent of all properties on local tax rolls, but accounts for one-fourth of the valuations set by local assessors for property taxation.

Single-family nonfarm houses make up 50 percent of all local realty valuations in the nation. Adding in multifamily property, nonfarm residences altogether account for 60 percent of all real estate values set by local assessors. Acreage and farms contribute 11 percent, and vacant lots less than 3 percent.

The number of pieces of real estate on local assessment rolls ranges from a high of 6 million in California downward to a low of only 77,000 in Alaska.

In 38 of the 50 states, nonfarm residential property accounts for more than half of the total dollar amount of local real estate valuations. The 12 exceptions are typically rural states, and in five of these at least 45 percent of the total real estate assessment is for acreage and farm properties.

Over-all assessments for the nation's taxable real property averaged 32.8 percent of the sales value in 1966. The figures are based on a sample of real estate transfers recorded in a 6-month period in 1966. Residential property assessments averaged 36 percent of the actual sales price. Commercial and industrial property averaged 35 percent; vacant lots, 23 percent; and acreage and farms, 19 percent.

Census findings show that the ratio of assessments to sales price for nonfarm residential property varied widely from state to state. In Idaho, Minnesota, Montana, North Dakota, and South Carolina the state-wide average assessed value was less than 15 percent of the sales price. At the other extreme, this ratio averaged more than 50 percent state-wide in Alaska, Connecticut, Delaware, Florida, Hawaii, Kentucky, Maine, Maryland, New Hampshire, New Jersey, North Carolina, Rhode Island, and Wisconsin.

The report cautions that the percentage relationship between taxable or assessed value and sales price should not be confused with property tax rates, which are also sometimes expressed in percentages. A high assessment ratio does not necessarily mean heavy property taxation, nor does a low ratio necessarily mean a low prop-

erty tax rate, since the actual tax billing is derived by multiplying the taxable assessed value by the nominal rate.

Real estate listed on local tax rolls in 1966 was officially assessed by local officials at $393 billion, considerably less than the estimated market value of $1,227 billion. Five years earlier, in the 1962 Census of Governments, taxable real estate was found to be assessed at $282 billion in 1961, while the market value was about $1,000 billion.

Widespread gains in the quality of property tax assessment are indicated by the 1967 findings. More than three-fifths of the reported assessing areas of 50,000 inhabitants or more show a "coefficient of dispersion" of less than 20 percent for their assessments of nonfarm houses. The 1962 Census of Governments found only one-third of the assessing areas of 50,000 or more doing this well in 1961. Five years earlier, in 1956, the proportion was only a little over one-fifth.

The coefficient of dispersion is a measure, in percentage terms, of the average departure of individual assessments from the typical or median level of valuation for the kind of property involved in a particular assessing area. Thus, a low percentage denotes uniform assessments and a high percentage reflects variation. A 20 percent dispersion figure has been cited as an "outside limit" for acceptability.

Smaller assessing areas covered in the Census survey show similar improvement during the past decade, though they still lag behind the areas of over 50,000 population. In 1966, nearly half of the smaller areas sampled had a dispersion index for nonfarm house assessments of under 20 percent, as compared with only one in five of such areas 10 years earlier.

Property tax rates and assessment ratios on single-family homes varied widely among the 122 major cities which were covered in the 1967 Census study. In the city with the lowest effective tax rates, the median rate was $3.60 per $1,000 of sales price. In the city with the highest effective tax rates, the median rate was $43.10 per $1,000 of sales price. The median rate for all 122 cities in the report was $18.50 per $1,000 of sales price. The tax rates included levies for all governments within the city area, including school, county, township, special district, and state property taxes.

The level of assessment for seven of the 122 cities averaged less than 15 percent of sales price, while at the other end of the scale 14 cities assessed single-family homes at median rates of 60 percent or more of sales price. Median point for 122 cities was 30.1 percent of sales price.

Property tax rates, in relation to sales price, generally were higher in major cities of the Northeast than in other regions. Ten cities in the Northeast had median rates of $30 to $43.10 per $1,000 of sales price, while only two cities in the North Central region and one in the South had rates higher than $30.

In 63 cases in which tax rates for city and surrounding county rates could be compared, 39 cities had higher rates than the rest of the county; in 9 cases there was little difference; in 15 cases city rates were lower than rates for the rest of the county.

Public Employment

A third major phase of the Census of Governments deals with public employment and payrolls as of the month of October 1967. The findings are to

be issued soon in two reports which will make up Volume III.

Employment of Major Local Governments (Vol. III, No. 1) presents data on public employees and October 1967 payrolls for the 3,049 county governments, municipalities over 10,000 population and sizable townships, school districts with enrollments over 3,000, and relatively large special districts.

Compendium of Public Employment (Vol. III, No. 2, scheduled to be published about the end of April) provides comprehensive statistics on civilian public employment for the month of October 1967. It presents detailed information on employees and payrolls of all governments—federal, state, and local—by level of government and by function. Comparative historical statistics are included. Various tables supply information on average monthly earnings and annual pay rates of full-time public employees, and on coverage of these employees under contributory programs for retirement protection, health and hospital benefits, and life insurance.

Extensive detail is shown, state by state, concerning employment and payrolls of state and local governments, with distributions by function and by type of government. Local government data are summarized separately, with functional detail, for local governments located within standard metropolitan statistical areas and for each county area in the nation. Selected items are presented for size groups of county governments, municipalities, townships, and school districts.

Governmental Finances

The fourth major phase of the Census of Governments deals with finances; i.e., taxes and other revenue, by source; expenditures by function and by character and object; indebtedness and debt transactions, by term and by character; and holdings of cash and securities. The 1967 Census has assembled information on these subjects from all governments in the United States, covering fiscal years that ended between July 1966 and June 1967.

Findings are to be published nationally, by state, county, and metropolitan area, and for sizable individual municipalities, townships, school districts, and special districts. As in the case of the other phases of the Census, the many hundreds of pages of published data will be supplemented by a considerably larger volume of microfilmed tabulations, and also, of course, by detailed records in the form of computer tapes.

We expect that the five reports, which will make up Governmental Finances, Volume 4, will be completed by about mid-1969. *Finances of School Districts,* No. 1, is tentatively scheduled for issuance in April, and the comprehensive *Compendium of Government Finances,* No. 5, may be released by late June. The Volume 5 report, *Local Government in Metropolitan Areas,* is scheduled to be completed by July.

Topical Reports

The periodic census also provides various topical studies or reports. Four of the Volume 6 topical studies from the 1967 Census have been issued to date, as follows:

No. 1, *Popularly Elected Officials of State and Local Governments*

No. 2, *Employee-Retirement Systems of State and Local Governments*

No. 3, *State Reports on State and Local Government Finances*

No. 4, *State Payments to Local Governments*

The remaining three topical studies which will provide a historical review of governmental data, state rankings, and a graphic summary, are expected to be issued in July through August.

Recurrent Surveys

Census Bureau annual surveys on government statistics provide comparative federal, state, and local financial statistics on a fiscal year basis and data on public employment and payrolls for the month of October. These surveys cover all the state governments and about one-tenth of all local governments. The reports present national totals and data by state on revenue by source, expenditure by function and by character and object, indebtedness, financial assets, and public employment and payrolls.

Quarterly sample surveys provide summary national estimates on tax revenue and on construction expenditure of state and local governments.

In recent years, the annual reports on finances and employment have supplied nationwide local government summary totals by type of government, local government totals by state (but not broken down by type of government), detailed comparative data for individual state governments, and comparative statistics for the 310 city governments of over 50,000 population. These city data relate to the municipal corporations as such, and do not include amounts for the various other overlying or underlying local governments that operate within the urban areas.

For many years, widespread needs have been expressed for comparative county government data and for finances and employment aggregates of local governments operating within metropolitan areas and within county areas. Such data are generally available only at five-year intervals from the Census of Governments.

Summary data on finances of local governments within each of 38 major SMSA's were developed for fiscal 1964-65 and fiscal 1965-66. Results of these limited exploratory efforts were issued in the reports, *Local Government Finances in Selected Metropolitan Areas*, for each of the two fiscal years.

Consideration is being given proposals to expand coverage of annual surveys on finances and employment to supply comprehensive comparative data for the 72 largest SMSA's, their 223 component county areas, and the other 47 county areas (outside the 72 SMSA's) having 200,000 or more inhabitants. Local governments in these 270 county areas serve more than half of our nation's inhabitants and account for about two-thirds of all local taxes and local public expenditures in the United States. The proposed report would feature comparative per-capita data, based on the Bureau's new series on current population estimates for large SMSA's and their component county areas.

Relations with Local Governments

I should like to emphasize the cooperative nature of the periodic census of governments and of our annual surveys on governmental finances and employment. For the states and a few of the largest and more complex local governments, we compile most of the financial data in relatively extensive detail, from official reports and records. Generally, however, in our collection of basic data on local govern-

ments, and for certain surveys on state government data, we rely on mail canvass methods. We are most grateful that in these mail surveys we consistently obtain from both local and state officials a very high rate of returns of good quality. We enjoy cordial relations with virtually all of the representatives of public schools and of other educational agencies with whom we deal, and benefit by their prompt and generous aid in response to our inquiries and requests.

Census Bureau programs have also been greatly aided by close working relations with various governmental and professional associations, including the National Education Association. Its representatives and members for many years have helped to plan and develop our programs, and they cooperate effectively in supplying a substantial portion of the raw data. In turn, many of them are important users of the statistical data. We are gratified that presentations at conferences of the NEA Committee on Educational Finance and at other professional associations concerned with governmental services and finances, as well as articles and statistical data in your annual report, newsletters, journals, and other publications so often draw upon Census Bureau findings.

Comparability of Statistics and School Finance

Carol Joy Hobson

BECAUSE OUR SCHOOLS are in *transition,* there is considerable pressure to *restructure* school financial accounting to produce hard data on where the money is coming from, how it is being spent, which educational programs are getting what shares of the school dollar, and which educational programs are deemed most effective in terms of dollars invested. We do not know when the *reform* in school accounting will occur to produce all of the requested data to the satisfaction of all concerned, but we can anticipate concern on the part of the educators if a disproportionate amount of the educational dollar is spent for record keeping and administrative reports.

Transition is indicated by the increased efforts being made to meet the individual needs of the pupils, the questioning of traditional methods of school administration demonstrated by demands for community control, greater emphasis on preprimary education, and the ascent of teacher and student militancy. Also, the growing acceptance of planning-programming-budgeting (PPB) as an aid to decision-making not only affects the way school funds are expended, but may ultimately lead to a restructuring of the present means of financing education, and a complete revision of school accounting.

Whether these expected reforms in school accounting (which entail a very sophisticated record system and expensive data-processing equipment) will lead to a revolt on the part of our educators is yet to be seen. We must expect, however, that as education continually changes, data technology must be extended to include measures appropriate to such modern concepts as PPB and evaluation systems. Further, as new target groups, such as migrant workers, the handicapped, and bilinguals, are singled out for special attention, more data and records are required to administer and evaluate these programs.

Effect of Federal Aid on Financial Statistics

The massive categorical federal aid programs have been a bane and a boon to establishing comparable financial statistics. When you consider that education in this country is state and local (and mostly local), it is amazing that we have progressed as far as we have in achieving comparable statistics in school finance. With the ex-

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ception of forms to apply for and to account for federal funds, all of the thousands of questionnaires and forms coming into the U.S. Office of Education are filed on a purely voluntary basis.

That federal aid has been a bane to our ongoing statistical program may be illustrated by the typical administrator, short of personnel with two forms to complete—one to account for federal funds so that he can get more aid, and one to report general purpose statistics—you know which one will be completed first. Hence, quite often we experience some considerable delay in obtaining general statistical data from our respondents.

Federal aid has been a boon to achieving comparable financial statistics in that legislation frequently specifies that only certain accounts must be included in calculations for certain programs to be supported by the federal government. For example, state allocations for the billion dollar Title I program under the Elementary and Secondary Education Act are based on a specific definition of state per-pupil expenditure. Any state unable to report in accordance with the prescribed definitions could be penalized.

Our task in the National Center for Educational Statistics is twofold: to try to provide comparable financial and other data needed for decision making and to try to reduce the burden on our respondents by not requiring the completion of voluminous forms which may duplicate one another.

Our concern with the extensive data requirements imposed upon the state led us last summer to prepare a listing of all known forms that state education agencies may have occasion to file with the U.S. Office of Education during the 1969 fiscal year. This compilation revealed that 75 forms are due annually, 4 forms are due twice a year, 1 is due three times a year, 5 are due four times a year, 2 are due monthly, and 34 have due dates not yet established. This revelation resulted in the appointment last August of a task force to explore the possibilities of reducing the reporting burden on state education agencies through the consolidation of forms and to review the actual utilization of the data reported. The chairman of this Task Force on Forms Consolidation is appropriately the Assistant Commissioner for Educational Statistics.

Data Sources

Our reports in the area of state school systems flow into the Office as a result of the filtering of information through many levels. The state data are based on data supplied by local or intermediate administrative units and represent the cooperative efforts of almost 3 million persons at the state, intermediate, and local levels, including superintendents, principals, teachers, bus drivers, school lunch personnel, and secretarial and clerical personnel. Data for our reports originate at some 100,000 public elementary and secondary schools, in 20,000 local school systems, in the 50 states, plus the 20,000 nonpublic elementary and secondary schools.

Meeting the broad service function of collecting, analyzing, and disseminating basic educational statistics in such a diverse system of education is a formidable assignment. And when we add the requirements that the data be comparable, timely, and adequate to meet the major requests for information for decision making, we have a task which amazes visitors from countries with central statistical bureaus.

The effort to achieve comparable statistics in school finance has been an uphill struggle for many years. During the past 60 years, the U.S. Office of Education has sponsored hundreds of national conferences to develop methods to achieve uniform statistical reports of state and local school systems. Handbooks, manuals, and other publications have been issued to encourage uniform procedures and definitions and to assist state education departments in their efforts to revise their own record and report forms.

Development of the Handbook Program

Prior to the initiation of the Handbook Program in 1950, four major attempts were made on a national scale to improve the standardization of educational terminology.

The first national effort occurred during the years 1909-1912. The National Education Association established a Committee on Uniform Records and Reports, which issued a report in 1912 (U.S. Bureau of Education Bulletin, 1912, No. 3) calling for continuous effort to improve the comparability of statistics. With the completion of its report the committee disbanded, and no further effort was made until 12 years later.

In 1924, the National Association of Public School Business Officials, the National League of Compulsory Education Officers, NEA, and the U.S. Bureau of Education cooperated to produce the *Report of the Committees on Uniform Records and Reports* (Bulletin 1928, No. 24). Uniformity of record and report forms was recommended, but few definitions were included.

In 1928, the first meeting of the Council of Chief State School Officers appointed a committee to study uniformity of educational statistics. Its first report in 1929 emphasized the need for the participation and active involvement of the federal government, working closely with the state departments of education. This placed the central responsibility at the federal level. However, the funds requested to carry out this program were not granted, and efforts again faltered.

The third national effort began in 1934, with participation of the U.S. Office of Education and the directors of research of the state education agencies. Work dealing with statistics and report forms was undertaken, and several conferences were held. One report was issued, Circular 204, *Financial Accounting for Public Schools.* This effort terminated in 1939, as the impending war focused attention elsewhere.

The end of the war brought a renewed desire to establish a program of educational standardization. A National Committee on the Cooperative Program on School Records and Reports was established, and study committees were appointed. Two reports were published: a revision of Circular 204, *Financial Accounting for Public Schools,* and *Records and Reports for Pupil Transportation,* Special Series No. 2, 1949. By 1949, this program had also lapsed into inactivity.

In 1949, the Council of Chief State School Officers urged that progress be made on an emergency basis in the establishment of a "recommended uniform system of basic school records and reports." It was decided to do this through a program of *identifying, classifying,* and *defining* items of educational record information to be maintained, as *defined,* by school systems throughout the country. This led directly to the establishment of

the Handbook Program. This program has thus far produced the following publications:

Handbook I.	*The Common Core of State Education Information* (1953).
Handbook II.	*Financial Accounting for Local and State School Systems* (1957).
Bulletin No. 21	*Financial Accounting for School Statistics* (1959) Handbook II Supplement.
Handbook III.	*Property Accounting for Local and State School Systems* (1959).
Handbook IV.	*Staff Accounting for Local and State School Systems* (1965).
Handbook V.	*Pupil Accounting for Local and State School Systems* (1964).
Handbook VI.	*Standard Terminology for Instruction in Local School Systems* (to be published in 1969).

The work involved in producing a handbook is immense, requiring the participation of a large number of specialists. A typical project schedule includes:

1. Conference of executive secretaries of selected national organizations
2. Project team of the U.S. Office of Education to research the available literature
3. Planning conference
4. First draft (limited working paper)
5. Specialist conference
6. Second draft (limited working paper)
7. National Review Conference
8. Third draft (enlarged distribution and use by some)
9. Regional Conferences (review and beginning of implementation effort)
10. Fourth draft
11. Final National Review Conference in which endorsement of each participating organization is obtained
12. Fifth draft (for widespread distribution and implementation).

This program has helped to define terms for decision making, increase communication and flow of information among school systems, standardize the information flowing from one level to the next, allow for coding of the data, and increase reliability and validity of statistics.

Future handbook programs are being planned to standardize terminology of state education agencies, to devise a comprehensive system of educational management information, and to integrate PPBS concepts into educational terminology.

Generally, three to five years elapse between the decision to develop a handbook and the actual publication of the finished product. And as many of you may have noted from the voluminous footnotes in our *Statistics of State School Systems* publications, it takes 5 to 10 years (a former colleague would estimate 30) for the 50 state school systems and tens of thousands of local school systems to implement systems which yield comparable data.

Presently, an effort is under way to revise the financial accounting handbook. To be most meaningful, the revised Handbook II should interre-

late financial data with data on staff, pupils, curriculum, and facilities, thus making possible a comprehensive system of educational information.

Committee on Educational Data Systems

The Committee on Educational Data Systems (CEDS) was established as a standing committee by the Council of Chief State School Officers on November 23, 1962. The Committee has 55 members, one appointed by each chief state school officer. The work of the Committee is performed by a nine-member Planning Committee which meets quarterly, three times a year at the expense of the U.S. Office of Education. In addition, several separate committees charged with specific assignments, such as Title I of the Elementary and Secondary Education Act, meet as the demand arises. CEDS maintains close contact with the U.S. Office of Education, particularly with the National Center for Educational Statistics. The official U.S. Office of Education liaison with CEDS is the Assistant Commissioner for Educational Statistics, who is also the head of NCES. As the principal advisor to the Commissioner in the field of educational statistics, the Assistant Commissioner for Educational Statistics leans heavily on CEDS in carrying out the original mission of the Office, that of "collecting such statistics and facts as shall show the condition and progress of education in the several States and Territories."

As representatives of their respective Chiefs, CEDS members work for the development and implementation of the best possible program to provide all levels of school government—local, state, and federal—with timely, accurate, and significant data on all aspects of education.

CEDS representatives have organized themselves into regional groups (such as NESCERS, WESCERS, SESCERS, and MID-WESCERS) which meet periodically, with U.S. Office of Education representatives to keep abreast of new developments.

Relationship of NCES to Other OE Bureaus

Although the National Center for Educational Statistics collects general purpose statistics to fulfill the original mission of the U.S. Office of Education, other bureaus and staff offices also conduct surveys and studies to collect special purpose and program data to administer and evaluate programs which are federally aided or experimental in nature. Recognizing the desirability of having one focal point of contact between the state education agencies and the U.S. Office of Education, and the fact that CEDS is concerned with the total information requirements of the state and federal governments, the Deputy Commissioner established a Coordination Group on Educational Statistics and Information in August 1968. This committee is a top policy advisory group composed of three chief state school officers, three CEDS members, and five U.S. Office of Education employees (the Deputy Commissioner, who is chairman of the group; the Associate Commissioner for Federal-State Relations; the Assistant Commissioner for Educational Statistics; the Assistant Commissioner for Program Planning and Evaluation; and the Director of the Office of Management Information). This group advises the Commissioner with respect to the following related issues:

1. The type of information the U.S. Office of Education will attempt to collect from the states and how such information will be used.

2. The establishment of a centralized point of contact between the U.S. Office of Education and the states with regard to the collection of information and statistics (Presently CCSO's receive requests for information from several different U.S. Office of Education sources. All such contacts are to be cleared through a central point to eliminate overlap and confusion.)

3. Comparability of statistical and information systems (The Advisory Group will review the utilization of the extensive work already accomplished by CEDS in developing comparable information systems and handbooks for statistical information.)

4. The problems created by the U.S. Office of Education when bypassing state education agencies to gather educational statistics from local education agencies.

5. The problems of federal program guidelines that appear to have power of regulations or laws.

Uses of Financial Statistics

Even if each state and local school system adopted standard terminology and definitions, and kept uniform records of receipts and expenditures, there would still exist some noncomparability of the data because of the varying ways by which schools are financed. We are constantly cautious with regard to the development of state rankings, or any other measure derived from state averages which are used to indicate the quality of education. The most widely quoted average, when comparisons are made between states, is the current expenditure per pupil. Our caveats and lengthy footnotes are overlooked. We are accused of creating distortions in state data when actually the distortions that do occur are created by the nature of the beast. For example, the employer's contribution to the teachers' retirement fund may be made by the local school board, or by the local government in fiscally dependent school systems, or by the state education agency on the behalf of local school systems, or by the state legislature directly and never pass through the regular school accounts. Our staff spends a substantial amount of time to make certain that regardless of the method by which the contribution is made, the monies are included. We research the records of retirement systems and utilize the reports of the Governments Division of the U.S. Bureau of the Census. In those states where some political jurisdiction other than an educational agency pays for operation of the schools, it is very difficult to obtain "the true current expenditure." It is doubtful that a uniform cost accounting system employed by all political jurisdictions rendering education-related services, would be feasible. It is even debatable that such a system could be designed, and it is very unlikely that all jurisdictions could be persuaded to adopt it since the costs of maintaining such a system would outweigh any benefits derived.

With regard to the pupil measure used to determine current expenditure per pupil, the Handbooks recommend using average daily membership (ADM) instead of average daily attendance (ADA), or some other pupil count. ADM has several advantages over ADA. It measures required school facilities better since there is no reduction in expenses due to pupil absence. By averaging pupil membership for the entire year it does not distort the figures of in- or out-migration states. Yet, for ADM to be comparable from state to state, there must be agreement on the number of consecutive days of absence to be followed by automatic withdrawal.

By developing the Handbook series, the U.S. Office of Education has endeavored to provide a basis for reporting comparable data. We have

worked diligently with the states to secure adoption of standard terminology, definitions, and accounting. However, since this is a voluntary cooperative effort, and we lack the authority to compel the states to comply, we must depend upon discussion and persuasion.

Crisis in Education and School Finance

Study after study indicates the high correlation between location of school, family socioeconomic status, housing, and school attitudes on the one hand, and school achievement and educational attainment on the other. According to a recent survey conducted by the U.S. Office of Education, schools provide little opportunity for minority group pupils to overcome the deficiences which they initially bring to school. "In fact they fall farther behind the white majority in the development of several skills which are critical to making a living and participating fully in modern society. Whatever may be the combination of nonschool factors—poverty, community attitudes, low educational level of parents—which put minority children at a disadvantage in verbal and nonverbal skills when they enter the first grade, the fact is the schools have not overcome it." [1]

In his appearance before the House Committee on Education and Labor earlier this month, Secretary Finch noted, "The core cities contain the highest concentration of the poor and educationally deprived, and they are experiencing mounting difficulties in finding adequate resources to support their school systems." [2] President Nixon's task force on education recommended last month that an additional $1 billion of federal aid be made available to big city school systems. The task force said it believed that Title I in its present form was not having a significant impact on the massive problem of urban education.

Although it is generally agreed that education spells the difference between our national growth toward maturity or catastrophe, we have yet to make education an effective instrument for social change by neutralizing the adverse conditions of disadvantaged pupils. Education should be one of the principal means by which disadvantaged peoples acquire upward mobility. As practitioners of school finance, you can assist in the formulation of ways to inject additional funds into those areas most in need, those that invariably have the lowest capacity to obtain adequate resources. You can assist state education agencies to examine how they can more effectively stimulate local school systems to make the best possible use of the school dollar. To determine if our schools are operating at maximum efficiency, i.e., each pupil has the opportunity to achieve his full potential, sound financial accounting practices and relevant statistical data must be available.

[1] Coleman, James S., and others. *Equality of Educational Opportunity*. U.S. Department of Health, Education, and Welfare, Office of Education. Washington, D.C.: Government Printing Office, 1966. p. 21.

[2] Statement by the Honorable Robert H. Finch, Secretary of Health, Education, and Welfare, before the Committee on Education and Labor, House of Representatives, March 10, 1969.

Comparative Costs of Education Among States

William R. Dormandy, Jr.

NEW YORK STATE SPENDS considerably more per pupil for elementary and secondary education than any other state, according to information reported biennially by the U.S. Office of Education. As a result, the New York State Education Department initiated a study to determine if the expenditure information, as reported by the U.S. Office of Education, was actually comparable among states. An effort was further made to determine where educational expenditures differed greatly among states to provide insight as to why New York State was spending so much more than other states.

The states studied—California, Connecticut, Illinois, Michigan, New Jersey, and Pennsylvania—were chosen because they had one or more characteristics in common with New York State such as rural and urban distribution of pupils, large-city problems, numbers of pupils being educated, and relatively high expenditures for education. The New York State study team visited the education department of each of the six states. Educational and fiscal policies and reporting practices were discussed and eventually compared to determine where reported information could, or did, vary among the selected states.

Information requested by the U.S. Office of Education for its *Statistics of State School Systems* includes both fiscal and program data for public elementary and secondary schools. Items requested and definitions used are those found in Handbook I, *The Common Core of State Educational Information.*

The ability of states to report program and fiscal information in terms of items and definitions designated in Handbook I is a limiting factor when comparing expenditures among states. Another factor, which is not obvious, is the degree of uniformity in accounting procedures among school districts in making their reports to state education departments. The ability of states to extract expenditures for nonpublic education from total expenditures when reporting to the U.S. Office of Education also affects the reliability of expenditure comparisons as does the extent to which all expenditures for education can be identified and reported.

Per-Pupil Expenditures Defined

The per-pupil expenditures published by the U.S. Office of Education are obtained by dividing total current

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expenditures for a state by the average daily attendance of that state. Total current expenditures, as defined, include expenditures for:

1. Full-time elementary and secondary day schools (administrators, supervisors, instruction, other school services, operation of plant, maintenance of plant, and fixed charges)
2. Administration by state board of education and state board for vocational education
3. Administration by state department of education and miscellaneous state expenditures for education (regular programs, emergency programs, and miscellaneous—state contributions for teacher retirement, social security, etc.)
4. County and intermediate administrative units.

Average daily attendance is defined as the aggregate days attendance of the school divided by the number of days school was actually in session. All expenditure categories as defined for total current expenditures were included for each state when computing per-pupil expenditures.

Variations in Computing Average Daily Attendance

The method of computing average daily attendance differs among states and, therefore, not all states conform to the U.S. Office of Education definition. Since this statistic is directly related to resulting per-pupil expenditure information, nonconforming states cannot be compared accurately with those which do follow the U.S. Office of Education definition. California includes all legally absent pupils as part of average daily attendance. Connecticut includes a portion of summer school attendance. The greatest discrepancy, of course, is caused by the method used by California. The ratio of average daily attendance to fall enrollment for California is 99.5 percent compared with 91.1 percent for New York State. Some states do not use ADA as a basis for distributing state aid and, therefore, often do not check such information for accuracy, or do not receive ADA information from local districts and estimate the information on the basis of fall enrollment.

Accounting Procedures

Most states follow the federal accounting system or one parallel to it but in more detail. There appears to be no serious problem among states in reporting fiscal information in a manner consistent with that recommended by the U.S. Office of Education. The system used by New York State differs from the federal system, but expenditures can be regrouped to fit the federal system quite accurately.

Some deviation exists among states, however, in that not all states identify new equipment as current expense. Those states that place all equipment costs in capital outlay, in effect are excluding costs which have been included by other states. Some states leave the accounting designation of equipment to the discretion of local school districts.

Local to state reporting variations may occur when reporting expenditures for items and staff which overlap defined categories. The impact of these variations could be considerable when comparing districts within states, but should be of negligible importance when making comparisons among states as long as basic state accounting systems are comparable.

Nonpublic-School Expenditures

The U.S. Office of Education requests states to remove nonpublic-school pupil expenditures when reporting public elementary and secondary expenditures. States often include

such expenditures in state publications; this can result in some variation between state and U.S. Office of Education published expenditures.

Many states provide no nonpublic-school services and so no such costs are included in their reporting. States which do provide services such as busing, shared teacher time and health services to nonpublic schools and loan equipment or textbooks, often find it impossible to identify such costs. Some states make no attempt to exclude these costs, while others estimate costs. The accuracy with which nonpublic-school expenditures can be removed from public education expenditures affects comparability of costs among states.

Identification of All Educational Expenditures

This study indicates that most states have instances where some expenditures for educational purposes are assumed by another agency or municipal government and not reported as educational expenditures. These tend to be more prevalent where school districts are fiscally dependent upon another municipal government. Such omissions are not attempts to obscure educational costs, but usually exist from traditional patterns of financing. It is believed that such omitted expenditures are minute compared with the over-all costs of education and would not greatly affect the per-pupil expenditure comparison among states.

Perhaps the greatest loss of actual educational expenditure causing drastic distortions among state per-pupil expenditures results from the different methods used among states for financing and reporting retirement costs. New York State has a fully funded retirement system. Other states operate on a variation of the pay-as-you-go plan whereby payments are made by one or more combinations of teacher, local district, and state. In cases where teachers participate in payments, these payments are not reported as educational expenditures. States tend to make payments only to the extent that money is needed by the retirement system to meet current expenditures when they operate on the pay-as-you-go system. Under these circumstances, only the amounts needed for current operation are reported as retirement costs.

As an example, consider that all formal education stopped. There would be no further retirement expenditures necessary in New York State (even though the system is now completely subsidized by local districts) since reserve funds have been set aside to meet retirement costs for retired teachers. States operating on a partially funded system, however, would have to continue making retirement contributions to cover the cost of retired teachers until such time as all such teachers were deceased. Retired teachers in such states have no assurance that the state will continue to make sufficient payments to meet current costs, and if they do not, their retirement income would be reduced.

Comparability of Per-Pupil Costs Among States

The degree of comparability of per-pupil costs among states varies with the ability of the states to adhere to standardized definitions when making reports. The degree of accuracy between state comparisons varies depending upon the states selected. The greatest variation in reporting procedures for the states in this study was between California and New York; thus comparisons between these

TABLE 1.—SUMMARY OF EXPENDITURES PER PUPIL IN FALL ENROLLMENT, SELECTED STATES, 1965-66

Item	Cali-fornia	Con-necticut	Illinois	Michigan	New Jersey	New York	Penn-sylvania
1	2	3	4	5	6	7	8
TOTAL INSTRUCTIONAL EXPENDITURES	$398.72	$424.47	$364.91	$337.57	$401.18	$495.61	$347.86
Instructional staff expenditures	354.08	380.79	328.29	308.36	365.13	455.41	311.46
Principals and assistants	25.23	22.73	11.84	19.14	19.70	47.65	13.55
Supervisors	5.18	8.43	3.51	4.00	4.62	[a]	5.92
Classroom teachers	306.19	332.92	301.15[b]	271.15	324.22	391.51	279.44
Librarians	[c]	3.64	[d]	3.94	4.74	[e]	4.38
Guidance personnel	17.48	11.29	[d]	6.75	8.63	12.35	7.15
Psychological personnel	[c]	1.71	10.76	.67	2.29	1.86	[f]
Other	[d]	.07	1.03	2.71	.86	2.04	1.02
Other instructional expenditures	44.64	43.68	36.62	29.21	36.05	40.20	36.40
Secretaries and clerks for instruction	20.53	11.24	11.00	10.50	11.37	[g]	[h]
Textbooks	4.18	7.12	3.60	3.95	6.29	6.42	6.16
Library books and periodicals	2.50	2.57	3.75	2.67	4.25	[i]	6.36
Teaching supplies	[d]	10.05	10.44	8.42	10.98	19.08	10.92
Other instructional supplies and expenditures	17.43	12.70	7.83	3.67	3.16	14.70	12.96
TOTAL OTHER SCHOOL EXPENDITURES	149.96	122.79	153.09	124.30	170.72	270.87	150.07
Other school services	40.26	43.13	29.81	27.39	65.64	64.09	39.05
Attendance			1.01	1.71	1.15	2.69	1.59
Health	5.82	7.44	4.60	1.31	8.85	10.57	7.70
Transportation	11.93	21.19	14.65	17.45	16.96	37.59	20.13
Food	9.09	7.58	8.66	6.74	6.61	8.93	7.40
Miscellaneous	13.42	7.27	.89	.18	32.07[j]	4.31	2.23
Operation and maintenance	66.93	64.17	79.66	70.27	70.61	78.79	60.19
Operation of plant	48.81	[d]	65.48	54.08	51.25	[d]	43.50
Maintenance of plant	20.12	[d]	14.18	16.19	19.36	[d]	16.69
Central office expenditures	17.33	15.14	22.59	16.63	20.28	25.37	22.32
Superintendents, assistants, clerks' salaries	14.89	[d]	16.67	13.11	16.38	17.42	18.88
Other expenses	2.44	[d]	5.92	3.52	3.90	7.95	3.44
Other	25.44	[k]	21.03	10.01	14.19	102.62	28.51
Retirement paid by local units	17.25	[k]	13.87	2.25	7.24	93.85	21.41
Other district fixed charges	8.19	[k]	7.16	7.76	6.95	8.77	7.10
TOTAL OTHER EDUCATION EXPENDITURES	39.00	37.23	21.46	38.59	55.20	7.92	25.60
Retirement paid by state	14.02	31.00	17.49	34.86	50.63	.23[l]	20.77
Intermediate unit expenditures	12.52	..	1.39	[g]	.39	..	2.02
Education department expenditures	12.46	6.23	2.58	3.73	4.18	7.69	2.81
Administration of education department and state board	3.81	6.02	2.17	2.40	3.23	4.63	1.94
Other	8.65	.21	.41	1.33	.95	3.06	.87
TOTAL CURRENT EXPENDITURES	$587.68	$584.49	$539.46	$500.46	$627.10	$774.40	$525.53
TOTAL CURRENT EXPENDITURES PER ADA (U.S. OFFICE OF EDUCATION.)	$592.00	$625.00	$590.00	$551.00	$680.00	$858.00	$559.00

[a] Supervisors included with principals.
[b] Includes librarians and guidance personnel.
[c] Included in guidance expenditure.
[d] Not reported.
[e] Included in classroom teachers.
[f] Included in other staff.
[g] Included in instructional staff.
[h] Included in other instructional supplies and expenditures.
[i] Included in other instructional supplies.
[j] Includes special projects.
[k] Included in miscellaneous under other school services.
[l] Retirement for education department employees.

TABLE 2.—SUMMARY ANALYSIS OF EDUCATIONAL PERSONNEL[a] SELECTED STATES, 1965-66

State	Fall enrollment			Instructional staff per 1,000 pupils[b]										
	Elementary	Secondary	Total	Principals	Supervisors	Classroom teachers	Librarians	Guidance personnel	Psychological personnel	Other	Total	Central staff	Other	Education department
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
California ...	2,754,500	1,507,500	4,262,000	1.9	0.7	36.3	0.3	0.7	0.1	..	40.1	0.5	0.8	0.2
Connecticut ...	367,801	206,997	574,798	2.3	0.5	44.0	0.5	1.3	0.2		48.7	0.5	1.1	0.9
Illinois	1,366,273	721,466	2,087,689	1.6	0.8	39.9	0.6	0.7	0.1	0.1	43.9	0.8	0.5	0.3
Michigan	1,165,000	810,000	1,975,000	1.6	0.5	42.5	0.4	0.9	0.1	0.1	45.0	0.9	[c]	0.2
New Jersey ...	847,000	439,000	1,286,000	1.7	0.5	47.1	0.6	1.0	0.2	0.1	51.1	0.8	2.2	0.3
New York	1,833,184	1,357,661	3,190,845	1.9	0.8	48.5	0.8	1.1	0.3	0.3	53.7	0.4	1.2	0.7
Pennsylvania ..	1,226,421	963,408	2,189,829	1.3	0.7	39.1	0.6	0.8	0.1	[c]	42.5	0.6	1.2	0.3

[a] Based on: U. S. Department of Health, Education, and Welfare, Office of Education. Preliminary Statistics of State School Systems, 1965-66. Washington, D. C.: Government Printing Office, 1968. 17 p.

[b] Based on: U. S. Department of Health, Education, and Welfare, Office of Education. Fall 1965 Statistics of Public Schools: Pupils, Teachers, Instruction Rooms, Expenditures. Washington, D. C.: Government Printing Office, 1966. p. 12-13.

[c] Not reported.

two states are the least accurate of the seven states involved.

Once per-pupil costs of education have been determined, it is necessary to examine components of the over-all costs if differences among states are to be explained.

Analysis of Educational Expenditures

An analysis of educational expenditures among the states selected was made for 1965-66 by using pupils in fall enrollment as the pupil base for comparison. This was used since the method of arriving at fall enrollment among the selected states was consistent whereas considerable variations exist among the states in determining average daily attendance. Fall enrollment information was obtained from the U.S. Office of Education publication, *Fall 1965 Statistics of Public Schools,* since enrollment information reported in *Statistics of State School Systems* is an accumulative enrollment figure.

Problems in Analyzing Educational Expenditures by Components

The comparability among states of an educational component cost analysis is difficult to determine since states vary in their reporting procedures when identifying expenditures by item. States sometimes combine items when reporting; such combinations must be executed for the other states when making comparisons of cost. For example, New York State combines expenditures for administrators and supervisors. The cost for these two items must be combined for the other states in comparisons with New York State.

Analysis of Educational Personnel

An analysis of educational personnel among selected states was developed by using Part I of *Preliminary Statistics of State School Systems, 1965-66* as the source of information. States again varied from the U.S. Office of Education definitions, causing considerable differences among states in the manner of identifying segments of total instructional staff. These variations cause some distortion among states when staff categories are compared. Over-all total instructional staff statistics should be reliable and comparable. Fall enrollment was again taken from *Fall Statistics of Public Schools,* and elementary and secondary fall enrollment was taken from Table 4 of the same publication.

Identifiable instructional staff components, as seen in Table 1 include principals, supervisors, classroom teachers, librarians, guidance personnel, psychological personnel, and other personnel. Information was also available for central staff personnel, other central staff personnel, and personnel of the state education department. Special teacher information was not reported by states in a manner which would produce comparable results among states and so was not presented.

Owing to inconsistencies in reporting procedures among states and lack of correlation between reported fiscal and program information, it was impossible to develop teacher salary or elementary-secondary cost relationships which would be comparable among states.

Improved Reporting

It is hoped that as a result of this study, problems now existing which cause distorted cost comparisons among states may be overcome, thus yielding more accurate comparisons in the future.

PPBS and MIS: Their Role in Managing Education

Joseph A. Perkins, Jr.

SINCE THE ADMINISTRATION of education has become an accepted discipline, there has been little or no significant change in how we budget and manage the resources committed for education. Management tools developed for other governmental operations and for industry are now being retailored to meet the increasing problems of resource management in education. The purpose of this paper is to examine two of these tools, planning-programming-budgeting (PPB) systems and management information systems (MIS), and their relationship to each other.

Increasing public-school expenditures have led to the search for ways to use the available resources more effectively and efficiently. Tax and manpower resources which are needed to support public services are clearly limited. Because public education has been called upon to solve economic as well as social problems, expenditures for education will continue to claim a significant share of the tax dollar. Since these expenditures are rising and available tax resources are being stretched, the public is demanding better justification of educational costs. The growing unrest among taxpayers is evidenced by the increasing failures of levy and bond issue elections, some causing the dramatic closing of schools.

For years, school administrators have done a poor job of telling the story of budget needs to the public. No real effort has been made to talk about the cost of educational programs and the effectiveness of our processes and methods.

For years, school officials have been able to report the transportation cost per pupil/mile, per bus, and per route. Similarly they know the costs of cleaning, heating, and maintaining a school building, feeding a child, or running an athletic program. However, very few can tell what it costs to raise a child's reading or computational skill to a higher level, nor can they say if more or less should be spent to achieve this new level in a longer or shorter time, nor are they sure if they are communicating to the taxpayers these objectives in relation to costs.

Against this background, school officials are becoming more cognizant of the need for a more responsive and timely system which will effectively communicate the cost of educational outputs. They need a system which will allow for better decision making,

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alternative selections, planning, and forecasting. PPBS appears capable of meeting these needs.

PPB Defined

A planning-programming-budgeting system is an integrated system that provides school executives with better information for planning educational programs and for making choices among the alternate ways in which funds can be allocated to achieve the school district's established objectives. It aids the decision-making process by identifying goals and objectives, the programs to reach these objectives, the methods of evaluating the programs, and the cost of operating them.

The analysis and evaluation which are central to the implementation of a PPB system require identification of the public-school end-products. Analysis requires that activities be considered as they relate to each other. Therefore, the search for alternative ways of meeting defined objectives are considered through various combinations of personnel, facilities, and materials to bring about the desired educational product.

The important question routinely asked in the course of PPB implementation is, How much additionally would be gained by way of achieving the defined objective through spending more or less for the purpose?

Within PPB, the familiar processes of program development and budgeting are explicitly combined. It is a system in the sense of centering on program goals, objectives, and evaluation. The value of PPB in education results not from the individual techniques that have been developed, but from the integration of them into a system and their procedural application to educational decision making.

PPB Concepts

In an educational setting, PPB is based on three concepts:

1. The existence in each school district of an *analytic* capability which carries out continuing in-depth analyses by reducing objectives and programs to quantifiable units so that these programs can be evaluated
2. The existence of a multi-year *planning and programming* process which uses an information system to present data in meaningful categories essential to the making of major decisions by school administrators
3. The existence of a *budgeting* process which can take broad program decisions, translate them into more refined decisions in a budget context, and present the appropriate educational program and financial data for action by the superintendent of schools and the board of education.

PPB Essentials

Further, PPB in education must have the following four essentials:

1. An output-oriented educational program structure which presents data on all of the operations and activities of the schools in categories which reflect the schools' goals and objectives
2. Analyses of possible alternative objectives of the schools and of the alternative programs for meeting these objectives (Many different techniques of analysis will be appropriate, but central to this step should be analyses in which alternative educational programs will be compared with respect to both their costs and their benefits.)
3. Adherence to a time cycle within which well-considered information and recommendations will be produced when needed for decision making and for the development of the budget and educational program

4. Acceptance by line officials, with appropriate staff support, of responsibility for the establishment and effective use of the system.

PPB Products

The products of such a system in education will include:

1. A comprehensive multi-year program and financial plan systematically updated

2. Analyses of program results related to objectives prepared annually and used in the budget preview, special studies in depth from time to time, and other information which will contribute to the annual budget process.

The over-all system is designed to enable each school district to:

1. Make available to board members and administrators more concrete and specific data relevant for their broad decisions

2. Describe more concretely the objectives of educational programs

3. Analyze systematically and present for the board's and the superintendent's review and decision, possible alternative objectives and alternative educational programs to meet those objectives

4. Evaluate thoroughly and compare the benefits and costs of educational programs

5. Produce total, rather than partial, costs estimates of educational programs

6. Present on a multi-year basis the prospective costs and accomplishments of educational programs

7. Review objectives and conduct educational program analyses on a continuing year-round basis instead of on a crowded schedule to meet budget deadlines.

PPB Cycle

The schematic diagram on page 126 shows the PPB systems cycle. The elements are:

1. The *needs* of the community must first be identified—the needs of the children, adults, business and industry, and other governmental units.

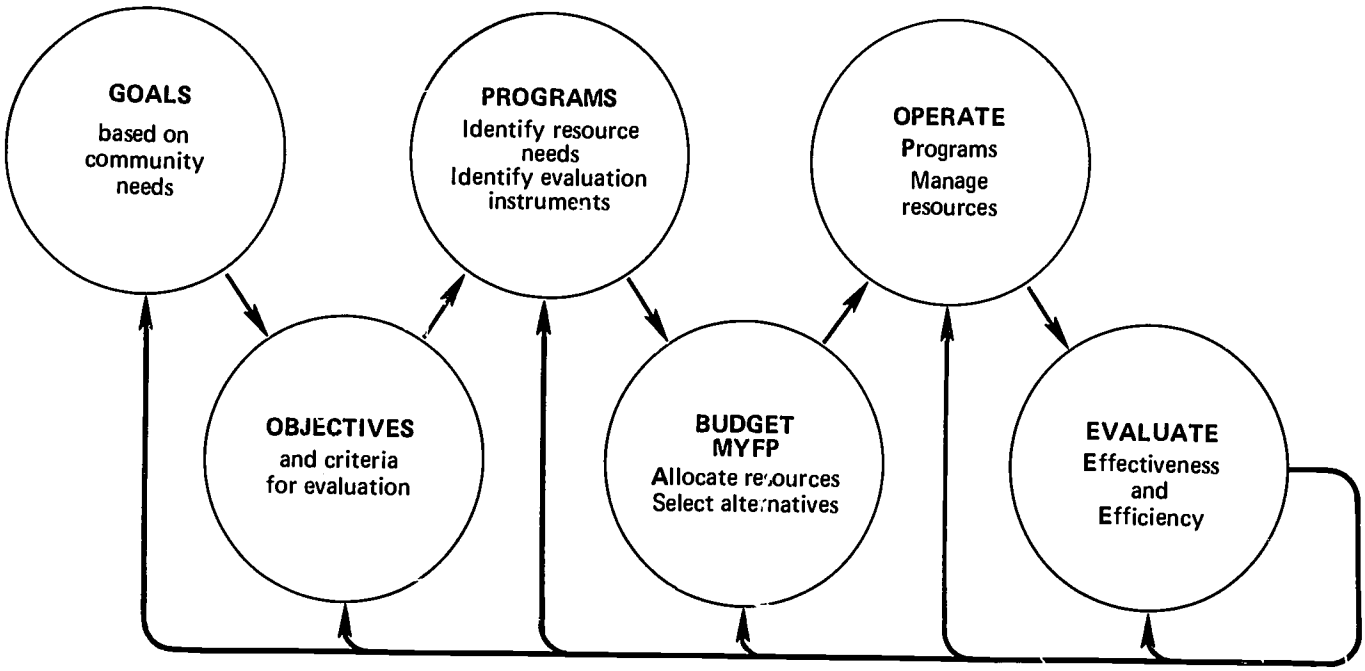
2. These needs must then be translated into *goals.* Goals are general statements of purpose or intent; they are not related to a specific period of time, and they are not quantifiable or measurable in any way other than by a broad subjective review. These goals need to be arranged in hierarchical structures in order that they may be broken down into manageable units. A typical goal structure is shown on page 127.

3. *Objectives,* which are desired quantifiable accomplishments within a time framework must next be developed. These objectives must relate to a goal, be measurable, state the method of measurement, indicate the evaluative criteria, and state the time period for achievement. A typical objective structure is shown on page 128.

4. When the goals and objectives have been developed, approved, and documented, it is necessary to develop *programs* to accomplish the objectives. In most school districts these programs already have been documented in the form of course outlines or curriculum guides and often include some objectives. At this point, the evaluative instruments which will be used to assess the program operation should be identified.

5. The dollar figures must next be developed in the form of a *budget* for the approved programs. Not only is the budget for the next year prepared, but financial plans for several

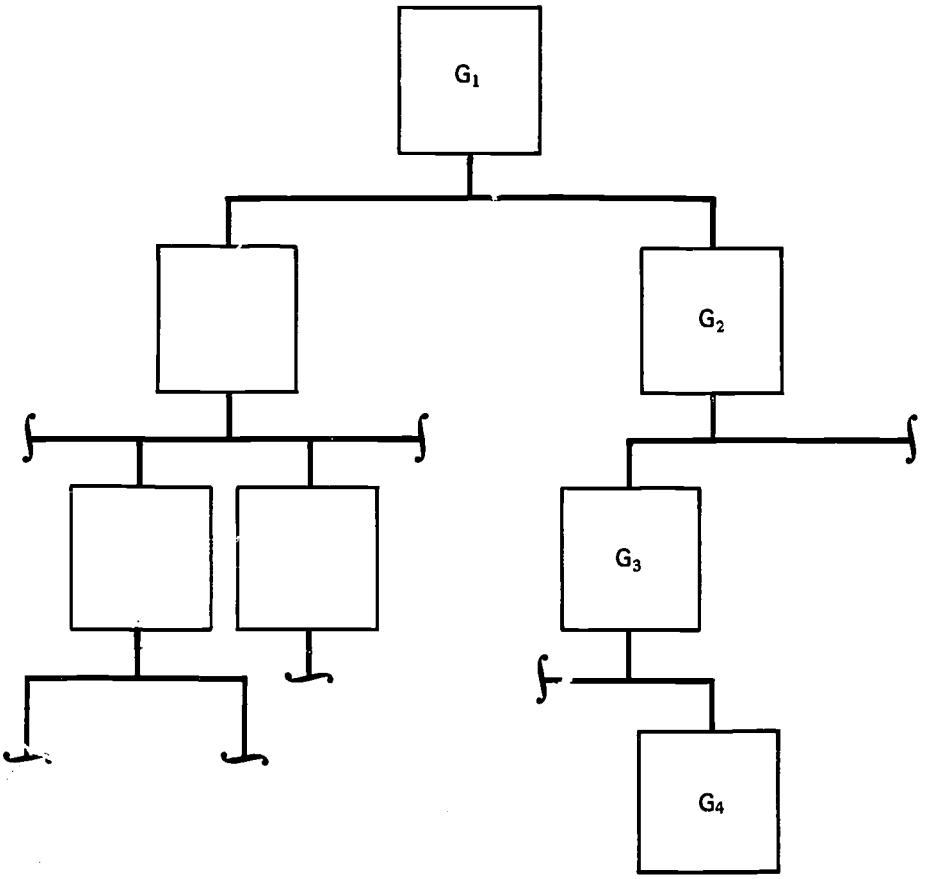
PPBS CYCLE



COMMUNITY NEEDS

Children
Parents
Governmental Units
Business
Industry

TYPICAL GOAL STRUCTURE



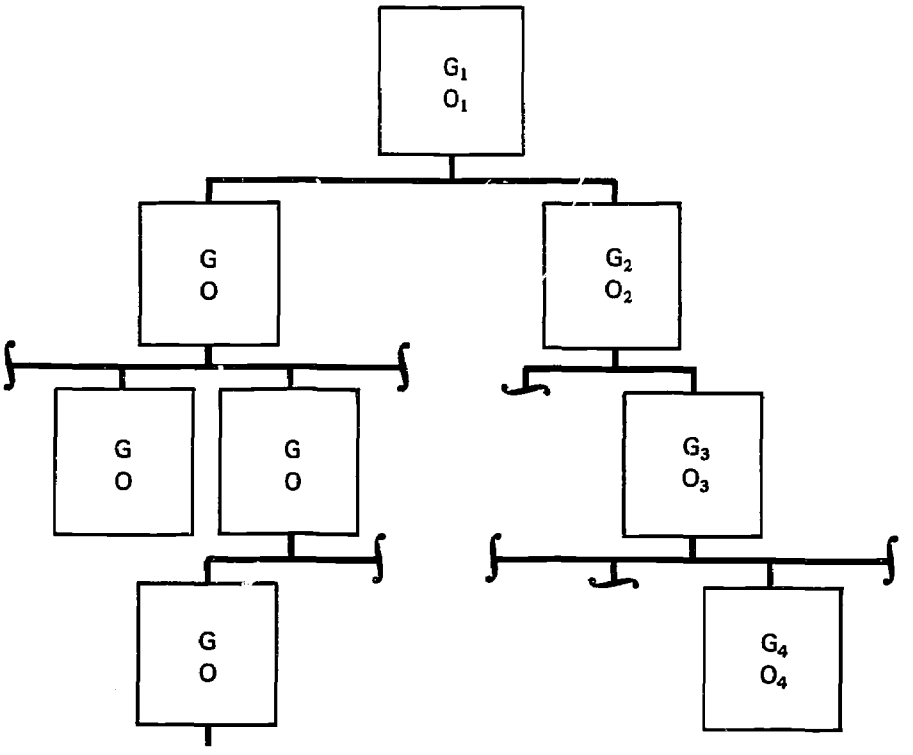
G_1 — To provide all students the opportunity to develop skills and characteristics enabling them to gain employment.

G_2 — To provide all students the opportunity to develop skills and characteristics in business, industrial arts, and agriculture.

G_3 — To provide all students the opportunity to develop skills and characteristics in typing, shorthand, bookkeeping, and office machine operation.

G_4 — To provide all students the opportunity to develop skills and characteristics in bookkeeping.

TYPICAL OBJECTIVE STRUCTURE



O_1 For ninety percent of the graduating seniors that wish to enter the labor force to gain employment in business within months of graduation as measured by a district survey.

O_2 For ninety percent of graduating seniors that wish to enter the labor force gain employment as desired in business, industrial arts, and agriculture within three months of graduation as measured by a district survey.

O_3 For ninety percent of the business curriculum students to meet the following standards:

- *Typing* – 40 words per minute as measured by the IBM test with 90 percent accuracy
- *Shorthand* – 60 words per minute as measured by the Gregg test with a 2,000 word vocabulary
- *Bookkeeping* – demonstrate understanding of journals, income statements, and balance sheets as determined by classroom tests
- *Office Machine Operation* – mean score equal to national average on NCR tests

O_4 Upon course completion ninety percent of students will be able to accomplish the following based on classroom tests:

- State and understand the basic accounting equation of double entry bookkeeping
- Understand the function of and make journal entries
- Understand three depreciation calculation methods

years, usually five, are developed. This Multi-Year Financial Plan is generally a significant departure from the current practice of developing budgets for only the following year. It is at this point that alternative budgeted programs are examined and selected on the basis of the resources available.

6. In the PPB cycle the next activity is the actual operation of the programs and the management of the resources to implement them. These resources are, of course, the people, places, and things—the staff, buildings, supplies, and equipment.

7. The final step in the cycle is to evaluate the effectiveness of the program operations against the criteria established for the various program objectives. The process then recycles by using the evaluation information to determine whether objectives were attained or were not attainable because of either program or resource limitation.

A PPB system is a constantly changing process. The initial effort to start a system requires that all current programs and activities be subjected to this systematic analysis process. As ineffective programs and activities are purged from the system, their replacements are subjected to the same process.

Large and Small District Data Needs

The level of sophistication, or depth of detail, for the data developed in school districts will be determined primarily by two factors: (a) the size of the district and (b) the progress made in background essentials for PPB (e.g., goals, objectives determined, and cost accounting system in effect). The number of tasks required to convert current data to PPB depends on the size of the district: the larger the district, the more tasks required. Larger districts require development and documentation of more goals, objectives, criteria, and programs. Where districts have made significant progress toward the development of an operational PPB, the effort will be in adapting and improving what has been accomplished consistent with the designed system. Where a district has not yet commenced a data system, significant effort will be required to develop and document (at even a gross level) goals and objectives, evaluation criteria, programs to perhaps one level, and to initiate a budget and cost accounting system. Considering these factors, it is expected that the level of detail and sophistication of the PPB will vary among school districts.

It should be noted here that the utilization of data-processing equipment will greatly enhance a PPB system. The volume of data to be handled in *fully expanded* PPB is huge, and any method to speed up the processing of data and the development of management reports should be used. However, districts which are currently using manual or electric accounting machine systems can still accomplish the major steps for PPB. Goal identification, objective quantification, and evaluation criteria do not mandate data processing.

Costs can be kept by broader programs and levels. Many districts have done this for years without the aid of EDP. It may mean the expansion of the existing accounting system by the addition of more individual accounts, but many school districts have been regularly keeping detailed cost data on their operations.

Management Information Systems

The investigation of current information requirements and operating

systems usually reveals varying degrees of detail in local school districts. Five major categories of data must be developed in order to estimate, evaluate, and report within the multi-year framework of a PPB system. They pertain to pupils, programs, personnel, facilities, and finances.

Pupil Data

One of the major ingredients of PPB is program evaluation. The criteria developed in each district to evaluate programs will vary and may include not only classroom test results, but other pupil statistics such as dropout rate, college entry rate, or return-to-school rate. The school districts implementing PPB will find it necessary to record such statistics in a consistent format, and report them in specific time frames and against specific programs. The districts should also be prepared to utilize these statistics in the preparation of new programs, as well as in the evaluation of current programs, and to maintain such statistics for long periods of time to develop behavior patterns, trend reports, and long-range program evaluations.

In the multi-year financial planning portions of PPB, the districts will find it necessary to project pupil enrollment data, not only in number of students, but also in socioeconomic changes within the community.

Program Data

Goals, objectives, evaluation criteria, and program memoranda pertaining to each individual program operating in the school district must be recorded, stored, and reported for the successful operation of a school district PPB. This is true for both the educational programs (i.e., mathematics, English, social studies), as well as the special programs (counseling, career guidance, and ancillary services, transportation, maintenance, custodial).

Personnel Data

At least two major clusters of information on school district employees are required by a PPB system: payroll information and assignment information. Within the PPB framework, a district may choose to distribute the first-grade teachers' pay to several different first-grade programs, while charging all of the kindergarten teachers' salary to a single preschool program. For a high-school Spanish teacher who works two periods a day as a counselor, who is an assistant football coach three months of the school year, and who teaches driver training on Saturdays, specific portions of this teacher's salary must be pro-rated to the Spanish program, the counseling program, the physical education program, and the driver training program.

Facilities Data

The expenses involved in the operation of each school district facility must be recorded by specific facility to accommodate the information storage and reporting requirements of a PPB system. This will require the development of location and sublocation codes and the assignment of these codes to such items as inventory supplies, maintenance projects, and construction projects in the school district.

Financial Data

In addition to the program-oriented budgeting and accounting, the traditional function-oriented budgeting and accounting should be maintained by responsibility levels (organiza-

tional units), fund, and functional areas as long as they are required. It should be emphasized that in order to preserve data comparability for state, federal, and local analyses by existing functions, such as instruction, administration, and transportation, budgets can be cast in both ways, i.e., by line item within the function format and in a program format.

A caution should be inserted here to allay the fears of educators who are unfamiliar with school fiscal affairs. Accounting, enriched by its siblings of cost accounting and budgeting, is crucial for the successful operation of PPB, but it is merely a tool of the organization, not the end. Educational decision makers must guard against forming conclusions about instructional activities solely on the basis of costs. Costs must be known better than they normally are in schools, but costs must be weighed against benefits and values held by citizens for the development of their children.

Managment of Local School Systems

PPB systems and management information systems must be designed for local educational agencies to first provide for good management of the resources and programs. Information as an output from these systems must, as mentioned earlier, allow for better decision making, planning, alternative selecting, and forecasting. Information for reporting to the state and federal levels should be an automatic byproduct of these systems. As more and more states and the federal government move to adopt PPBS for managing at their respective levels, it would be desirable to have the information output from the local agencies be an automatic input to the higher levels.

Conclusion

PPB provides a new approach to an old problem, that of better utilizing our limited resources in hope of improving the learning process.

School administrators hold one of the most demanding jobs in the nation. The selection of program alternatives is no less promising in its potential payoff at the school district level than at state and federal levels, but to date, there is little application of PPB among school districts. This is caused by (a) the lack of specific knowledge of PPB, its associated techniques, and its potential rewards on the part of most school administrators, and (b) the shortage of qualified analysts and selected personnel to design, implement, and operate successful PPB systems.

Although these deterrents force some administrators and boards of education to shy away from investigating PPB, it is encouraging to see others pioneering with this new tool. Technical advisory help is now available to school districts that wish to venture. California is involved in the development of a model PPB system for all local districts of the state, the Dade County (Miami) School System in Florida has a joint PPB project with the Association of School Business Officials, and several individual school districts have initiated projects. Workshops and inservice programs are available.

If education is to hold a priority for expenditure of tax resources, and if the American taxpayer is to get better justification for his tax dollar, school officials now have the opportunity to utilize PPB, undergirded by an MIS, as a new decision-making tool to communicate more clearly the necessity for such expenditures and the manner in which the tax dollar is being spent.

An Overview of Planning-Programming-Budgeting Systems

John W. Dorsey

YOU HAVE PROBABLY HEARD about planning-programming-budgeting systems (PPB) either in the context of the McNamara era in the Department of Defense where PPB was applied to major defense problems, or in the context of the federal nondefense applications which have occurred since 1965. Or perhaps you have read about it in the literature of many different disciplines; it has been written about widely in many subject areas. PPB was "in" during the Johnson administration, and I think it is also going to be "in" during the Nixon administration. President Nixon has appointed an assistant director of the Bureau of the Budget in charge of planning-programming-budgeting systems, which, at least, indicates that he holds the system in high regard and plans to continue it.

Some state governments have also developed a strong interest in PPB. California and Wisconsin are well along in their systems, and Maryland has been working on a management information and planning system for the past 12 months. Although Maryland has recently changed governors, the new administration has endorsed the system and is encouraging its further development. Even some counties and cities have been working on PPB. The 5-5-5 Project under the leadership of Dr. Selma J. Mushkin of The George Washington University has provided technical advice and assistance to five states, five cities, and five counties toward the application of a system and has published a variety of materials useful to any other local or state government which may plan to adopt PPB.

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Economic Foundations of PPB

While PPB draws upon many disciplines, it finds its strongest basis—its primary justification—in economics. Economics as a discipline rests upon the postulate that the wants of men are unlimited and that the resources available to fulfill those wants are scarce. Nearly everyone aspires to greater and greater things, but the land, the labor, the capital, and the management available to satisfy those wants are scarce. This, then, gives us a definition of economics: Economics is a social science dealing with the allocation of scarce resources to their most efficient uses in fulfilling the un-

limited wants of men. PPB is the same kind of thing. It is a methodology for assisting in the allocation of the scarce resources available to governments so that these resources may be used in a most efficient way to fulfill the unlimited wants of the people the government serves.

Problem of Scarcity

In explaining the problem of scarcity, the economist often uses a simple device called a production possibility model. To illustrate, I shall make four assumptions: (a) There is full employment of resources in the economy. (b) The supply of resources is fixed; that is, the amounts of land, labor, and capital available are not increasing or decreasing. (c) Technology is constant; that is, the methods of production are not changing. (d) This is an economy in which only two things are produced. On the assumption that the two products are gin and bourbon, the production possibility schedule shows the alternative combinations of gin and bourbon that could be produced by this hypothetical economy. For example, you could have 10 barrels of gin and no bourbon, or four barrels of bourbon and no gin, or the various combinations of gin and bourbon that are shown below:

Production Possibility Schedule

Bourbon (barrels per day)	0	1	2	3	4
Gin (barrels per day)	10	9	7	4	0

Opportunity Cost

This simple model illustrates a fundamental principle of economics—the principle of opportunity cost. The opportunity cost of any product is the amount of alternative products which must be foregone. In other words, if you are producing 10 gin and no bourbon, but you want to produce some bourbon, you have to give up some gin. The opportunity cost of the first barrel of bourbon is the one barrel of gin you must sacrifice in order to produce the bourbon. The opportunity cost of the second barrel of bourbon is the two barrels of gin you must sacrifice. Society must, therefore, choose between gin and bourbon, and must decide how much of each to produce.

A vivid illustration of the opportunity cost principle is the tax surcharge currently levied on the federal income tax. The tax surcharge increases the tax payable by 10 percent per year. If, for example, you had to pay $300 additional tax, the opportunity cost is the $300 of goods and services sacrificed because of the higher tax payments.

Trade-off Between Public and Private Sectors

We can, thus, use the production possibility chart to examine the trade-offs in the allocation of resources between the public sector and the private sector. Let us represent the public sector with schools and the private sector with discotheques. The opportunity cost of the first million discotheques or night clubs is 1,000 schools. As we increase production of private goods, public goods must be sacrificed:

Production Possibility Chart

Schools (000)	10	9	7	4	0
Clubs (000,000)	0	1	2	3	4

If the economy has some unemployment, it is possible to increase the production of both schools and night clubs without giving up either. Or if more resources become available—more labor, more land, more capital—it is possible to have more schools and

more clubs. Or if technology changes, new methods of production become available, it is possible to have more schools and more night clubs. But, if none of those things happens, we must choose between schools and clubs.

The Pricing System and the Private Sector

In the private economy these decisions are made in a rational way through the pricing system. Governments do not have to intervene, except on occasion. The interaction of private groups within society answers the basic questions with which we are concerned. The consumer has a certain dollar income to allocate to satisfy his numerous wants. He ranks the alternative possibilities according to the amount of utility or satisfaction that he gets from each of them per dollar spent, and then spends his dollars until his income constraint is reached. While the consumer is trying to maximize his satisfaction, the businessman is trying to maximize his profits. He examines his revenues and costs, and then sets his prices and output so that his profits are as high as possible. The interaction of consumers trying to maximize their satisfaction and businessmen trying to maximize their profits results in resource allocation, which answers the fundamental questions of any economic system: What will be produced? How will it be produced? and Who will get it? These basic questions are answered through the market system with a minimum amount of government intervention. The price system does it. The profit motive does it. Incentives do it.

Different Kinds of Public Goods

In the public economy we do not have the same advantage. We do not have a price system. We do not have profit motives. We do not even have revenues for most government services. If the pricing system and the profit motive are such efficient allocators of resources, why do we not use them in the public sector to allocate recources there? It would be possible to use them in some areas of the public sector, but totally impossible in others. Here are five categories which are illustrative of the different kinds of things produced by the public sector.

Category one is collective goods, and for collective goods it is impossible to use a price system. An example is national defense; it cannot be distributed to particular individuals on the basis of whether or not they are willing to pay for it. We either have national defense for everyone, or we do not have it for anyone.

The second category of goods is an area where a price system is conceivable, but is not practical; for example, fire protection. We could bill people according to the size of the fire that was put out, but certain problems come to mind immediately. What happens if a person's credit rating is poor? Would the fire department respond? Or would they respond only where high profits seem assured? Thus, the pricing system would seem to be an impractical way to allocate fire protection resources, and, therefore, fire protection is generally put in the public sector. Police protection is the same type of thing.

A third category is where the pricing system would work, but we have decided not to use it for social reasons. Education is a classic example. We could put education strictly on a pricing system. We could bill parents according to the number of children they have in school. Parochial schools,

private schools, and universities do it. However, a long time ago we fought the battle of the public school system. It was decided that it was socially desirable to have everyone exposed to at least a minimum of education, and that it was good for each of us to have the others of us educated. Therefore, the educational system was taken out of the private sector and put into the public sector, and the price system was not used to allocate resources.

Other areas which must be public, or should be public, are areas where there are social costs—areas where the private producer has no incentive under a price or profit system to eliminate certain social costs which he imposes upon all of us; for example, air pollution or water pollution. The steel producer has no incentive to eliminate air pollution because it increases his costs to do so, and if his competitors did not take steps to eliminate pollution, the one producer who did eliminate it would have higher costs than the other producers. So, if social costs are to be taken into account, government must intervene.

Another area is where there are extremely high risks. If the risks are so great that profits are not reasonably certain, the private economy will not undertake the venture. An example is space exploration. The private economy cannot afford the billions and billions of dollars that it takes to put a man on the moon, since the payoff is so uncertain. It is not clear what profit opportunities are on the moon; and so if moon exploration is to be undertaken, it has to be done by the public sector rather than by the private sector.

Whether a Good Is Public or Private

These broad decisions about what should appropriately be public and what should appropriately be private are usually made through the political process. Once the decision is made that defense, education, and health care are to be public commodities, government agencies must decide what is the best way to provide national defense, what is the best way to provide education. and what is the best way to provide health protection. Since there is no price system, profit motive, or revenues to guide these decisions, some other device is needed to determine the allocation of resources in the vital and ever-growing public economy.

The PPB System

In the past some of us may have relied a bit too much on intuition and the law of averages rather than on a more structured, systematic process of analytical decision making. PPB is a concept which says that governments are concerned with broad objectives, but the resources available to governments are limited. The system is basically an economic system predicated on the idea that there is never enough of anything to do everything, and that the cost of any kind of action or decision consists of the opportunities that are sacrificed in taking that action. The principle of opportunity cost applies. Furthermore, any factors of production employed in the past are sunk costs which should no longer be considered. Rather, we should look to the future and find out what the marginal costs and benefits of particular decisions are.

The PPB Components

Planning is the process of determining objectives. (When PPB was implemented in the federal government, it was amazing how many federal government agencies had never

explicitly determined what they were supposed to be doing.) Programming is the steps or independent activities which enter into the attainment of a specified objective. And, of course, budgeting is the process of systematically relating the expenditure of funds to the accomplishment of objectives. Programming bridges the gap between planning and budgeting and concerns resource allocation, transforming inputs into outputs, measuring the costs, feasibility, and effectiveness of alternative courses of action, trying to get the greatest benefit from any given expenditure, and continuous program appraisal and reappraisal. Therefore, PPB is a methodology for organizing decision making. PPB *does not make decisions; people make decisions.* PPB is a system to help people make better decisions by forcing an explicit delineation of objectives in quantitative terms, if possible; by encouraging a systematic comparison of benefits and costs; and by projecting activities over an adequate time horizon. Budgeting used to be concerned with next year. Under PPB, it is supposed to be concerned with five years from now or even 10 years from now. We must consider the consequences of all the things we are doing now for five, 10, or 15 years in the future.

History of PPB

PPB is not entirely new. As a matter of fact, there is not much in it that is new. The Dupont Corporation and General Motors were early users of program budgets in private industry.

The federal government used a form of program budgeting from 1940 to 1947 in the controlled materials plan, a device to allocate the scarce resources available for World War II. David Novik, who is now at the Rand Corporation, was in charge of that plan and used cost effectiveness techniques to decide how the strategic resources needed in World War II would be allocated to possible alternatives uses.

Hitch and McKean's *Economics of Defense in the Nuclear Age*[1] was the first really systematic application of economics and systems analysis to the problem of national defense. Under President Kennedy and Secretary Robert McNamara, Hitch became Assistant Secretary of Defense in charge of systems analysis; at that point, PPB was born in the federal government. In 1965, President Johnson decided that the success of PPB in the Department of Defense had been such that the system should be extended to all civilian agencies of government.

Another way of looking at this evolution is to consider the stages of budget reform as they have been laid out by Schick.[2] There are really three functions of budgets: control, management, and planning. All budgets have some aspects of each of these, but over time the emphasis on each of these characteristics of budgeting has changed. During the 1920's and 1930's the budget was largely a control device, and its principal function was to make sure that funds were spent as they were supposed to be spent. Accounting was the dominant skill in budgeting during this period.

During the 1930's and 1940's, management became more important in budgeting. The professional manager

[1] Hitch, Charles J., and McKean, Roland N. *Economics of Defense in the Nuclear Age.* Cambridge, Mass.: Harvard University Press, 1960. 422 p.

[2] Schick, Allen. "Systems Politics and Systems Budgeting." *Public Administration Review* 29: 137-51; March/April 1969.

took over from the accountant as the budget officer, and efficiency measures were generated which made the budget a useful managerial tool. The Hoover Commission Reports added and accelerated this process.

By 1960, planning was emerging as an important third aspect of budgeting, and, indeed, under a full PPB system, planning would be the most important aspect of the budgeting process. Under PPB, economics becomes the dominant skill.

Past Budgetary Defects Corrected by PPB

The systems which preceded PPB were deficient in a number of respects: They did not specify concretely the accomplishments of existing programs or the planned accomplishments of new programs: they did not identify alternatives; they did not show future year costs; and they did not talk about marginal data—how much of an increment each program will be getting and what that means in terms of value received. They did concentrate on efficiency and on work rather than on value and product.

In PPB systems the budget is formulated to tell you what government is doing and how well the things government is doing conform to the objectives which have been established. Structurally, a program budget is output oriented. It focuses on what government is doing, rather than on how many paper clips, rubber bands, supplies, services, and salaries (inputs) were used. It is a program budget rather than an administrative budget. And it is usually composed of categories, subcategories, and elements.

Categories are groupings of agency activities which serve the same broad objective. Subcategories are a further breakdown of activities on the basis of narrower objectives. Elements are the specific products, i.e., the goods and services, which contribute to the agencies objectives. For example, a department of public welfare might have the following programs: family services, child welfare services, services to the blind, services to the aged, aid to the disabled, special aids to local units of government, and aids to individuals. The child welfare service program might be further broken down into subprograms as follows: child center, boarding home care for foster children, special project, aid to dependent children, licensing and direct services, and community and county services.

As an example of a program structure for education we might use one prepared by the State and Local Finances Project,[3] for the objective of educational opportunity. Under that might be preschool educational assistance which includes Head Start Annual, Head Start Summer, and Migrant Day Care. There might be elementary and secondary educational assistance which includes neighborhood youth corps in-school programs, neighborhood youth corps summer program, CAP Remedial Title I, and Migrant Youth.

Analysis in PPB

Once the structure of a program budget is formulated, starting with the objective and then breaking it down into the categories and subcategories, the next important ingredient is analysis. You cannot

[3] State-Local Finances Project of The George Washington University. *Planning for Educational Development in a Planning, Programming, Budgeting System.* Prepared for the Committee on Educational Finance, Washington, D. C.: National Education Association, 1968. p. 39-46. $1.00. #511-20830.

answer the important questions about the alternatives, the benefits, and the costs without analysis. In the federal system, the major analytical device is the program memorandum required annually on each program category. It explains the specific programs for a multi-year period, shows the total cost of these recommended programs, and describes the program objectives and expected accomplishments in quantitative terms. The program memorandum compares alternative programs in terms of effectiveness and cost.

A program memorandum for a manpower training program might compare institutional training with on-the-job training, measuring the benefits and the costs of each one. It might evaluate the groups to be trained in terms of the benefits and costs derived: white versus nonwhite, old versus young, disadvantaged, need for remedial skills, etc. It would rank the alternatives according to some realistic criteria, discuss nonquantifiable aspects of the problem, and make some recommendations.

The analytical method, then, is to take a series of promising alternatives and rank them according to some criteria: reliability, maintenance, power, supplies, communication, and the like. Measuring the effectiveness (the pluses) and the costs (the minuses) makes it possible to rank these programs in terms of their net benefits or their cost effectiveness.

Continuous Redesign Necessary

The system is a never-ending one. You formulate a problem, select some objectives associated with the problem, design some alternatives for dealing with those objectives, collect some data, build some models to test the data, weigh the cost against the effectiveness, and test the model for sensitivity. You always have to make assumptions in analysis, and if the assumptions are wrong, you want to know what difference it will make in the results. Therefore, by changing the assumptions, you can find out how sensitive the results are to the assumptions. Redesign the assumptions, reexamine the objectives, open up new alternatives, reformulate the problem, select some more objectives, and so on.

Since benefit-cost analysis is widely used in the federal government, and by other levels of government as well, I shall give you a simplified example to illustrate how it works. Table 1 shows the benefits and costs of several alternative water resource projects de-

TABLE 1.—BENEFIT COST ANALYSIS OF FLOOD CONTROL

Plan	Annual cost	Average annual damage	Benefit (reduction of damage)	Benefit minus cost
Without projection	0	$38,000	0	0
Plan A—levees	$3,000	32,000	$ 6,000	$3,000
Plan B—small reservoir	10,000	22,000	16,000	6,000
Plan C—medium reservoir	18,000	13,000	25,000	7,000
Plan D—large reservoir	30,000	6,000	32,000	2,000

Source:
Eckstein, Otto. Public Finance. Second edition. Englewood Cliffs, N.J.: Prentice-Hall, 1967. p. 25.

signed to deal with flooding in some area of the country.[4] There are alternatives being considered for dealing with the problem. Plan Zero is to do nothing; and if we do that, it will cost nothing, and the annual average damage will be $38,000. Plan A is to build some levees, and that will cost $3,000 and reduce the damage to $32,000. Plan B is a small reservoir that costs $10,000 and reduces the damage to $22,000. Plan C is a medium-size reservoir that costs $18,000 and reduces the damage to $13,000, and Plan D is a big reservoir that reduces the damage to $6,000, but it costs $30,000. In this simple example the only measure of benefits I shall use is the reduction in flood damage. Plan A, then, reduces flood damage by $6,000; Plan B reduces it $16,000; Plan C, $25,000; and Plan D, $32,000. In a sense, the benefits to the public sector from a program of this kind can be thought of in the same sense as the revenues flowing to a private producer, and the costs are the same as the costs to the private producer; so the benefits minus the cost are a kind of measure of profits in the public sector. To maximize profits (net benefits), we pick the point where benefits minus costs are greatest and that is Plan C, the medium-size reservoir.

I am not saying that in all cases the decision maker should pick Plan C or that he would pick Plan C, but based on the objective that I have developed here, the objective being to maximize benefits minus cost, Plan C is the best choice.

I have described what PPB is all about. What do we expect from it? We expect to get a more explicit decision-making process, which assures the decision maker of a valid set of comparable alternatives. We hope to express the ingredients for decisions in concrete quantifiable terms, and when they cannot be quantified, we want to be explicit about that. And we want to look at decisions in a future context, not just one year ahead, but many years ahead.

Traditional budgeting, the kind we are now using for the most part, says *this is where we are.* Now *where do we go from here?* PPB takes the base as given and talks in terms of the next year's increment. Therefore, it envisages a kind of smooth gradual change over time. But PPB asks a somewhat different question. It says where do we want to go and how do we get there. It looks at the future, and asks what our objectives are and what alternatives there are to get there. Therefore it permits a more radical kind of change than traditional budgeting currently permits. Under traditional budgeting, we use justification for our budget requests. We need two new positions, but we need them because our work load has gone up. PPB imagines the use of analysis rather than justification. The use of quantifiable techniques, systems analysis, and economics, tries to shed some light on the problems that face us.

What PPB is Not

We may know what PPBS is, but let us make sure that we know what it is not. It is not revolutionary. Its ingredients are largely not new except in the way they are organized or presented. It is not a substitute for judgment, opinion, experience, or wisdom, but all those things are brought into play. The decision maker still has to make the decision, and he has to use

[4] Eckstein, Otto. *Public Finance* Second edition. Englewood Cliffs, N. J.: Prentice-Hall, 1967. p. 25.

his intuition, knowledge, judgment, etc. It is not an attempt to computerize the decision-making process. Computers do not make decisions either; they are just useful tools. It is just not another way to save money. As a matter of fact, it will cost a great deal of money to fully implement it. It is not another budget, and it surely is not the answer to every problem involving every issue. But if it is successful, it will be successful simply in having presented a better format to decision makers, more information on which they can then make a more intelligent rational decision.

Planning-Programming-Budgeting Systems: Boon or Bane for Cost-Effectiveness Studies

Orlando F. Furno

REGARDLESS OF HOW school budgets are prepared, all involve a budgetary process. Such processes differ throughout the United States. With relative certainty we can say that great troubles lie in store for those who willfully short circuit the democratic process of public and staff involvement in the budgetary process. Everyone wants to get into the act and he should. Democracy requires that our citizens be heard on school matters and that their opinions be respected. This is what makes budgeting a complex process, and this is what also makes it so interesting.

We are concerned here about problems associated with computerizing a financial accounting system and with measuring costs. In the first instance we are concerned principally with planning-programming-budgeting (PPB) systems, particularly with defining programs, activities, and subactivities as well as with delineating specific goals, aims, and objectives. In the second instance, we are concerned with a system approach to capturing financial and personnel statistics, particularly with respect to costs associated with specific programs, activities, and subactivities defined in PPB systems.

A PPB system should mean precisely what it implies; namely, planning a budget in terms of program needs. A PPB system does not itself ensure that planning will occur or, more importantly, that such planning will be efficient and effective. I cite as evidence several large school districts which have prided themselves on having instituted new and novel PPB systems but nevertheless have or will close down their public school systems because they ran out of funds. If in fact planning did take place, surely such planning was inefficient and ineffective.

A PPB system implies that programs can be identified, program goals can be enumerated, and program costs can be properly allocated and posted. If resources to do this are not available when needed, the school district cannot undertake meaningful cost-effectiveness studies. What the system has is a paper PPB system. Cost-effectiveness or cost-quality studies cannot be anything but shallow, and certainly no administrator should be so fool-

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hardy as to base management decisions upon such cost-effectiveness studies.

We know that cost is affected by many variables—social, psychological, and political. We know that effectiveness is difficult to measure and subject to many different interpretations, both subjective and objective. Each analysis of cost-effectiveness in public education raises more questions than it does answers. This presentation is no exception. Keeping these factors in mind, I shall discuss the cost-effectiveness relationship in terms of PPB systems. To do this requires discussion of school expenditure, educational values, PPB systems, use of computers in financial accounting, problems associated with the measurement of school costs, and problems associated with the measurement of educational values or effectiveness.

Problems Associated with the Goals and Objectives of Education

It is one thing to talk about school quality, and another thing to define, develop, and delineate the goals and objectives of education. Over the years, the aims of education have been eloquently stated but poorly defined. Terms such as *school quality, dynamic curriculum, life education, cognitive domain, affective domain,* or *realization of each child's true potential* are not easily subject to measurement. Costs-effectiveness relationships cannot be correctly determined when the goals and objectives of education are stated so vaguely.

Clearly, the principal objective of program budgeting is to secure the attainment of education's goals and objectives. If programs and activities are not meaningfully detailed and if performance statistics are not developed, program budgeting will not help school administrators any more than present school accounting procedures. In fact, program budgeting could even result in making cost comparisons more difficult to secure.

According to Hirsch [1] some of the key characteristics of a useful program budget are:

1. Programs should directly and effectively relate to the nation's major educational objectives.
2. Programs should lend themselves to meaningful breakdowns and into program elements that can be readily related to each other.
3. Programs should have administrative relevance and provide for administrative effectiveness.
4. Programs should directly relate to source of funds and facilitate viable intergovernmental fiscal relations.

Burkhead [2] considers the following to be some of the key objectives of a program budget:

1. It should describe accomplishments, not just objects of expenditures or things bought.
2. It should reflect meaningful work programs to all centers of decision making authority.
3. Program budgeting requires substantial decentralization within an organization both for the preparation of the budget and for its execution.

Program budgeting objectives stated thus sound quite impressive, but most of these educational goals are not subject to measurement and quantification. Even the few goals that are, for example, national testing and assessment, raise more heat than light. Over

[1] Hirsch, Werner Z. "Education in the Program Budget." *Program Budgeting: Program Analysis and the Federal Budget.* (Edited by David Novick.) Cambridge, Mass.: Harvard University Press, 1965. p. 178-207.

[2] Burkhead, Jesse. "The Theory and Application of Program Budgeting to Education." *Trends in Financing Public Education.* Proceedings of the Eighth National Conference on School Finance Sponsored by the Committee on Educational Finance. Washington, D.C.: National Education Association, 1965. p. 180-90.

the years values change. What our forefathers regarded as touchstones, we have discarded as irrelevant for today's world. What we regard as touchstones today, our children will cast out tomorrow. Such is the problem we encounter when we try to define what our values, goals, and aims should be.

Are we to be left with the dilemma of developing elaborate cost statistics through PPB only to find out that we have amassed these costs without regard to criterion values of effectiveness? Clearly, PPB systems are to be useful in cost-effectiveness studies, the problem of defining, developing, and delineating the goals and objectives of education must be resolved.

Problems Associated with PPB Systems

Purpose of Program Budgeting

Program budgeting seeks to measure performance and hold those responsible accountable. In theory this reads well, but in practice, program and performance cannot be so clearly defined as to be understandable or to affix accountability. Program budgeting will not in and of itself eliminate the school administrator who must approve the expenditure for every postage stamp; program budgeting will not hold solely accountable the school administrator whose nature is such that he bucks every decision elsewhere. Yet, if program budgeting is to serve its useful purposes, responsibility must be decentralized, and persons must be held accountable for performance. Responsibility for justifying and accomplishing the work to be done with the money made available should be defined. Development of management-oriented financial patterns and encouragement of improved public services at acceptable cost levels should be encouraged. The program budget presents to operating department heads opportunities and latitude in the allocation of monies appropriated so as to best secure their missions in the public interest.

Program budgeting is a policy tool; it emphasizes what is to be accomplished with requested funds; it should outline program goals and propose a plan for their accomplishment. Performance budgeting should provide the necessary data which indicate how far program goals were attained. Program budgeting will not quantify educational objectives, be a good substitute for inefficient managers, reduce school costs, or automatically increase the options available to school administrators.

Legal Basis for Program Budgeting

A program budget should delineate the legal basis which prescribes the budget process, schedule, composition, and responsibility for its development and administration. To my knowledge, no state expressly forbids program budgeting. Some states prescribe how a budget is to be developed, but this represents no bar to the school district which desires to develop program budgeting. Actually, whether a school system prepares its budgets in accordance with Handbook II or in accordance with program budgeting procedures, the legal basis upon which the budget is prepared should be delineated in the budget document.

Budget Calendar

The budget calendar should indicate when budget forms and manuals are to be distributed; how the district is to prepare its budget requests; when

various interested agencies, staff, teacher organizations, and individuals are to have their say; when the budget is to be reviewed by the school board; and when it is to be approved by the electorate in independent districts or by the municipal authorities in fiscally dependent school districts such as Baltimore City. In short, the budget calendar reflects the orderly logical processes through which the budget is approved.

Defining Programs and Activities

To fully understand program budgeting, certain terms must be understood. Programs, activities, subactivities, chart of expenditure accounts, chart of revenue accounts, coding of expenditures, and objects of expenditures must be made clear. For those familiar with the Handbook II of the U.S. Office of Education and school accounting in general, only programs and activities should represent new concepts.

For purposes of this paper, the major divisions of the PPB system are called programs. Programs (ideally mutually exclusive) are divided into activities. Each program's activities should be mutually exclusive subsets of their respective programs. Activities are further subdivided into subsets called subactivities and should be mutually exclusive subsets of their respective activities. On the expenditure side, then, the budget is sliced into three layers—programs, activities, and subactivities. Once a subactivity is defined, its activity program automatically follows because each division contains mutually exclusive subsets. Unfortunately too many PPB systems are confusing hodgepodges when it comes to meaningfully defining their major sets and minor subsets.

Designing a program, activity, and subactivity structure for PPB systems which will enable school systems to compare themselves with other school systems represents a most formidable problem. Failure to achieve this principle of uniformity will hinder cost-effectiveness studies considerably.

Comparison of Major Functions and Programs

Table 1 compares Handbook II major accounts with PPB systems programs. Insofar as major account classifications in Handbook II and program in PPB Systems are concerned, they do not differ greatly, except for the logical concept that all costs associated with a given program be posted to that program. For example, traditionally funds expended for equipment are either posted to the 700 Plant Maintenance Account if considered replacement equipment or to the 1200 Current Capital Outlay Payments account if considered additional new equipment.

Comparison of Minor Functions and Activities

In program budgeting, programs are subdivided into activities. Activities then can be compared with Handbook II subaccounts. While time does not permit a program-by-program comparison of activities with Handbook II subaccount, let us examine the program called Instruction. Table 2 contains the data for this comparison.

Clearly, what we quickly see here is the confusion between objects of expenditure and activities. Handbook II is costing out a program of instruction in terms of objects of expenditure rather than in terms of meaningful instructional activities. Program budgeting still costs out objects of expend-

TABLE 1.—COMPARISON OF HANDBOOK II ACCOUNTING CLASSIFICATIONS WITH PROGRAM BUDGET CATEGORIES OF THE CITY OF BALTIMORE PUBLIC SCHOOLS

Handbook II categories		Program budget programs	
100	Administration	400	Administrative Direction and Control
200	Instruction	401	Instruction
300	Attendance Services	402	Pupil Personnel
400	Health Services	403	Pupil Transportation
500	Pupil Transportation	404	Operation of Plant
600	Plant Operation	405	Maintenance of Plant
700	Plant Maintenance	406	Food Services
800	Fixed Charges	407	Student Body Activities
900	Food Services	408	School Community Relations
1000	Student Body Activities	409	Miscellaneous Programs and/or Private Grants
1100	Community Services	410	Special Projects—Federally Aided
1200	Current Capital Outlay Payments	411	Debt Service Management
1300	Debt Service Payments	413	Special Projects—State Aided
1400	Outgoing Transfer Accounts		

iture but in terms of programs and activities rather than by principal account functions only. For example, Table 3 contains a list of objects of expenditure actually used in program budgeting.

Whereas the concepts of program budgeting may be easily grasped, to me the terms utilized in program budgeting, the programs and activities as defined, do not communicate clearly. For over a century educators have worked on costing out educational programs. If it were an easy task, program budgeting would have long ago been an accomplished fact.

Problems Involving the Structure of Program Costs

What the structure of program costs should be, no one really knows. Some ways that have been proposed are: (a) grade level, (b) subject matter, (c) organizational categories, (d) services provided, and (e) project oriented categories. Some people think that school districts, particularly the large systems, should seek to attain the ideal—in other words, program costs for subject matter by grade level, with costs assigned to each school in the system. The literature abounds with such proposals, particularly by college professors. Before anyone takes his school system down this primrose path, he should weigh seriously the benefits to be derived against the costs involved. Program costs by subject matter by grade level by school involve a vast amount of work because it necessitates the gathering and manipulation of numerous cost items. Few systems can easily absorb the great costs involved in costing out programs by subject matter by grade level.

Problems Involved in the Installation of a PPB System

To convert from a particular accounting system to a PPB system involves a series of steps fraught with problems. If you desire to install a PPB system, here are the seven steps you should follow:

1. Inventory all of your school district's educational activities.
2. Develop a workable number of programs and define them meaningfully.

TABLE 2.—COMPARISON OF HANDBOOK II EXPENDITURE SUBACCOUNTS WITH PROGRAM BUDGET ACTIVITIES OF THE CITY OF BALTIMORE PUBLIC SCHOOLS

Handbook II Expenditure subaccounts		Program budget activities	
200	Instruction	401	Instruction
210	Salaries	401.01	Administration and Supervision
	Principals	401.02	Elementary Education
	Consultants or Supervisors	401.03	Secondary Education
	Teachers	401.04	Adult Education
	Other Instructional Staff	401.05	Summer School
	Secretarial and Clerical Ass'ts	401.06	Special Education, Elementary
	Other Salaries for Instruction	401.07	Special Education, Secondary
220	Textbooks		
230	School Libraries and Audiovisual Materials		
240	Teaching Supplies		
250	Other Instructional Expenses		

3. Subsume under each program its related activities and subactivities.
4. Develop a chart of objects of expenditures and corresponding codes.
5. Develop a chart of revenue accounts and corresponding codes.
6. Develop performance measures for each program and its related activities and subactivities.
7. Develop a data-gathering and data-processing reporting system for these performance measures.

Everyone familiar with school finance knows the work that is involved in successfully completing these tasks.

Program Budgeting and Computers

Some people rushed into program budgeting because they were led to believe that the computer would resolve program-budgeting problems. They naively believed that the computer would facilitate the diffusion of program budgeting. While a computer can do much, it has to operate within the constraints of time and work allotments. The computer cannot do everything instantaneously. In fact, generally manual systems are more flexible and adaptive to change than are computer systems. If the computer system devised for program budgeting is programmed to develop reports on too many subaccounts, the system will be too expensive and too unwieldy. For example, in one great city school district some 60,000 accounts are kept. Each month this school district prepares status reports on the various accounts showing both appropriations and expenditures. If program, activities, and subactivities statements and performance statistics were required, this alone would be a Herculean task. For a superintendent to evaluate the effectiveness of each account appears to be impossible. Surely, for those who wish to embark

TABLE 3.—CODES FOR EXPENDITURES BY OBJECT IN THE CITY OF BALTIMORE PUBLIC SCHOOLS

Code	Expenditures by object
01-15	Salaries and Wages
16-25	Other Personnel Costs
26-50	Contractual Services
51-65	Materials and Supplies
66-75	Equipment—Replacement
76-85	Equipment—Additional
86-88	Grants and Subsidies
89-91	Debt Service
92-94	Land
95-97	Buildings
98-99	Improvements Excluding Buildings

on the path toward program accounting, only an absolute minimum of programs and activities should be costed out. And what is equally important is that they should be costed out on an accrual rather than a cash basis.

Too Many or Too Few Data

To list the steps for the installation of program budgeting is one thing; to implement them successfully is another. Program budgeting must give top school administrators the data they need at the time they need it if they are to make wise rather than poor decisions. Too many unnecessary data will hamper those who are in decision-making roles just as much as too few data. Moreover, the axiom, too few data too late, holds true in school administrations as it does in war or corporate life.

Timely Reports

If the practicing school administrator is to administer his program and activities wisely, he needs to know at stipulated times his appropriation level, what funds have been encumbered, the amount of funds actually expended, and the amount of funds still available for use. As noted before, both revenue and expenditure accounts should operate on an accrual rather than a cash basis, although revenue ledgers should be posted on a cash basis as receipts are received. To do the work involved here, requires a staff that most districts are unwilling or unable to finance, even if competent persons could be found.

Position Control Systems

As systems get larger and larger, it is impossible for one person to know all the individuals who work for the district and what they do. Position control systems are seriously lacking in large city school districts. And the larger the school district, the less likely is it able to supply needed personnel data. To determine how many persons were employed on a certain date within a few days of this date is an almost impossible task for very large school districts. Yet sound program budgeting requires that an efficient position control system be developed. Such a system must not only provide for timely reports on personnel counts, but also be programmed to provide a wealth of personnel data required for local use and for state and federal reports.

Salary related data—In a survey of school costs by *School Management* magazine, it was found that salaries represented 85 percent of the current operating budget.[3] Clearly, when you have licked the problem of a practical position control system, you have solved most of your financial accounting problems. To gain an understanding of the job involved in maintaining a position control system, here are a few of the items needed:

1. Social security number
2. Name: last, middle, first
3. Marital status
4. Pension number
5. Payroll number
6. Degree status
7. Years of teaching experience
8. Salary step
9. Salary track
10. Full-time equivalent
11. Biweekly or monthly salary
12. Annual salary
13. Program budget account to which salary is to be charged
14. Position classification
15. Whether position is state-aided or not
16. Maiden name

[3] Computed from basic data in "10th Annual Cost of Education Index, 1968-69." *School Management*, January 1969.

17. Present address: street number, street name, city, state, zip code
18. Amount of salary reimbursed by state.

Of course, these are not all the personnel data needed, but they should give you an idea of what data are needed. Because of staff turnover, keeping such a file current is not an easy task.

Nonsalary related data—To obtain timely reports requires a systems and procedures approach. Practically any system can ensure the safeguarding of funds. While this represents a worthy goal, too often this goal has rendered accounting systems inefficient for management purposes. Over-concern for safeguarding a few pennies has too often led to the inefficient use and waste of thousands of dollars. Whereas nonsalary items represent only 15 percent of the current operating budget, the number of different transactions almost invariably exceeds those for salaries.

Some specialists in budgeting often call for the categorization of too large a number of equipment, materials, supplies, and other such items than can be reasonably handled even with large-scale computers. The result is a neat program budget in theory but a breakdown in timely reports in practice. Here again prudence dictates that only those nonsalary items be brought into the program budgeting system that can actually be handled at the time. Each year the system can be expanded to yield more and more data. Such an approach will in the long run be more successful and more efficient than the all-or-nothing approach.

Nonsalary related data reflect principally objects of expenditures. Lack of trained business officials and clerks to properly codify nonsalary data by revenue account, fund, program, activity, subactivity, and project account represents the most serious drawback to apportioning direct costs. When it comes to apportioning indirect costs, the problems with respect to cost-effectiveness statistics increase exponentially. For example, Research and Development is a service oriented division. Not only must its costs be codified to cost out its own programs and activities, but also its services to other programs such as Instruction and to other service divisions such as Payroll and Accounting must also be costed out. Rare indeed is the PPB system which can do this.

Problems of Accountability and Revenue Assignments

Another major problem with respect to program budgeting lies in the realm of program structure and organizational responsibility. It does not necessarily follow that a program structure for reporting and accounting purposes is most efficient for a school organizational structure. Yet the accountability goal for each program and activity is a worthy principle, and program budgeting seeks to achieve this objective whereas previous budget systems did not. Unless better measures of performance for each program and activity can be developed and the pertinent statistics gathered, accountability will represent more a dream than a reality.

While there are more problems that could be enumerated with respect to program budgeting, let us consider one last problem--this involves revenues for education. Supposedly, program budgeting enables not only school administrators to weigh money choices between respective programs and activities, but also those who pay for education. This represents fantasy rather than reality. Regardless of how

efficiently schoolmen allocate school funds, regardless of how prudently school administrators expend school funds, regardless of how many performance statistics school people produce to support education's needs, money will be hard to come by. Program budgeting *per se* will not increase aid to education one whit. In the budgetary process emotional appeals and subjective value judgments will continue to be the best avenues to achieve greater school expenditures.

Summary and Review

Clearly, the pursuit of program budgeting takes on significance only when related to the goals and objectives of education. That we have sought better ways to relate cost and quality in education should be apparent, even from the cursory historical overview developed here. That program budgeting is no panacea to our financial woes in education should also be apparent. Many more major problems, both in conceptual design and in execution, than discussed here abound with respect to the installation of program budgeting systems and the benefits to be derived therefrom. Regardless of the financial accounting procedures school districts use or plan to use, education must compete in the market place of ideas for its financial support.

Neither program budgeting nor any other system of budgeting should be prepared in a vacuum, for educational budgets must reflect society's goals. Yet society's goals are all too often affairs of the heart rather than the head and not easily measured and quantified. Too many of us are marching to the beat of too many different drummers. Cost-effectiveness studies should benefit from PPB systems but not by very much.

Financing the School Food Service Program at the State Level

Thelma G. Flanagan

IT IS UTTER FOLLY, from the point of view of learning, to have a compulsory school law which compels children, in that weak physical and mental state which results from poverty, to drag themselves to school and to sit at their desks, day in and day out. . . learning little or nothing. If it is a matter of principle in democratic America that every child shall be given a certain amount of instruction, let us render it possible for them to receive it.[1]

Does that sound like a quote from a 1969 war-on-poverty statement? It was really said in 1904. The need for a school food service program was recognized at the beginning of the 20th century. Public attention was focused on the social and economic consequences of undernourishment and the effect of malnutrition on the ability of children to learn.

In 1906, Spargo, reporting that Hunter estimated there were at least two million underfed children in the public schools of the United States, recommended that the United States copy Europe by attacking malnutrition through school feeding programs.[2]

Early Goals, Guidelines, and Beliefs Sound

Many of the earliest school lunch programs had sound goals and were concerned with good nutrition. Perhaps the most comprehensive statement of goals was made by Smedley who asserted:

1. School food service programs should meet the entire school day nutritional needs of all pupils, including lunch, and in addition, breakfast and supplemental nourishment, where needed.

2. All economically needy pupils should be fed without being made to feel themselves an object of charity with funds coming from government sources.

3. The program should be nonprofit, school-board operated, and staffed by professionally trained personnel.

4. Teachers should enrich the curriculum through school lunch experi-

[1] Hunter, Robert. *Poverty*. New York: Macmillan Co., 1904. p. 217.

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[2] Spargo, John. *Underfed School Children: The Problem and the Remedy*. Essays on the Application of Socialism to Particular Problems, No. 1. Chicago: Charles H. Kerr and Co., 1906. p. 26.

ences and the offering of career training in food service work.[3]

Those goals are as sound for the Space Age as they were when first expressed by Smedley in 1920.

Over the years, more and more educators think of school food service as an integral part of the educational system. For example, in 1926, Ford said:

> The high school cafeteria offers one of the most important opportunities for education of any of the new practices which have been added to the high school since 1900. This is a type of educational opportunity which conforms to the modern theory of method. The students may be taught through actual experience under conditions which are entirely under the control of the school authorities. The situation is not an artifical one but one which is practical and real in every sense.
>
> Student leadership and civic responsibility may be developed in the use of the cafeteria.[4]

Clyde Irwin, State Superintendent, in 1951 described school food service "as necessary as a library to building a well-rounded school program," and Kenneth E. Oberholtzer, Superintendent of Denver City School System, in 1955 in an address at the American School Food Service Association Convention, said school food service is "as important to education as algebra."

From then until now, various segments of the educational establishment, including school food service, have had vigorous opponents, as well as staunch supporters. It is the normal role and responsibility of school finance leaders to help identify and interpret needs, and to advocate programs and funds to meet the total school day needs of children. It is sad but true that many school finance leaders are less knowledgeable about the history and development, have been less responsible for, less involved in, and had less influence on school food service finance than on other aspects of the education program. Among those who have had the greatest influence on the tax funds provided for education, have been far too few staunch supporters of adequate tax funds for the school food service program. As a result, legislative bodies have been slow in providing a proper legal framework or adequate tax funds for the program. There has never been a period in school food service history when most programs were not beset with financial problems.

An early supporter was William H. Maxwell, Superintendent of Schools in New York City. He saw many school children spending their lunch money on pushcart and candy store delicacies, and urged school officials to provide nourishing meals for pupils. In 1908, a 3-cent lunch was begun in two elementary schools. After two years of operation, the board of education gave permission for installation of similar programs in other schools.

Military leaders were early advocates of a tax-supported school food service program. Selective Service figures, following the 1917 draft, indicated that one-third of all men rejected for military service were physically unfit owing to nutritional deficiencies, and Selective Service Director Lewis Hershey reported to the Congress that the United States suffered 155,000 casualties as a result of malnutrition. A major stimulus for the advancement of the school lunch program was provided by these shock-

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[3] Smedley, Emma. *The School Lunch: Its Organization and Management in Philadelphia.* Media, Pa.: the Author, 1920. p. 143-45.

[4] Ford, Willard S. *Some Administrative Problems of the High School Cafeteria.* Contributions to Education, No. 238. New York: Teachers College, Columbia University, 1926. p. 109, 110.

ing statistics, together with Surgeon General Parran's emphatic statement:

In our educational system we are wasting much money trying to teach children with half-starved bodies and minds. We shall spend tomorrow on the care of their sicknesses many times over that we save today on food which would prevent it.[5]

School finance experts who have advocated adequate tax support for the program include Morphet and Johns. Morphet was Executive Secretary for a comprehensive study of Florida's education needs, completed in 1947. Through his leadership, the Committee recommended:

The county board of each county should arrange to make available for each child an adequate lunch for the cost of the food. This means that county boards should include in their budget sufficient funds to cover personnel, facilities and other expenses connected with the school lunch program.[6]

Also, as Executive Secretary of the Southern States Work-Conference, he promoted a school lunch project and the development of a Southern States Work Conference bulletin, *School Lunchroom Policies and Standards,* that recommended that all school lunch personnel be employed in the same manner and paid on the same basis as other school personnel and that they be specifically trained for the services they were to render.

Johns, while addressing the first convention of the American School Food Service Association in 1947, said that all states should include the financing of the school lunch program in their plans for financing education and finance at least the non-food costs of the program.[7]

Before the Congress passed a permanent school lunch bill, some states passed appropriations for school food service appropriations. For example, in 1939, the Louisiana legislature started passing annual state appropriations for the school food service program. Other early state aid programs included a Utah bill enacted in 1942, which set up a tax of 4 percent on wines and liquors to help support the School Food Service Program. South Carolina, in 1943, appropriated funds to provide one supervisor for each county in the state. A few other states (e.g., West Virginia, Minnesota, New York, and Massachusetts) began providing state funds during the years just after the Work Projects Administration was liquidated. In Louisiana, Massachusetts, and New York, the state appropriation supplemented federal aid at a rate to guarantee a minimum of 9¢ reimbursement per lunch.

National School Lunch Act

The Congress, recognizing the multiple benefits of school food service programs, brought the federal government into permanent partnership with the states and local schools by passing the National School Lunch Act, which was approved by the President on June 4, 1946. Payments were to be made to states upon the condition that they would be matched on a dollar-for-dollar basis during the fiscal years 1947-1950; for the period 1951-1955, $1.50 for each dollar of federal funds; thereafter, $3 for every federal dollar. An interpretation by the Secretary of Agriculture enabled states to include

[5] Parran, Thomas, Jr. "Nutrition and National Health." *Technology Review,* June 1940, page 325.

[6] Morphet, Edgar L., Executive Secretary. *Education and the Future of Florida.* Report of the Comprehensive Study of Education in Florida. Tallahassee: Florida Citizens Committee on Education, March 1947.

[7] Johns, R. L. "Financing the School Lunch Program." *Nation's Schools* 41: 43-44; April 1948

not only direct appropriations, but donations and gifts, and also the money derived from the sale of lunches to children.

The Congress was critical of this interpretation, as evidenced by the House of Representatives Report No. 450 on the Agricultural Appropriation Bill for the fiscal year 1948, which stated:

> An interpretation by the Secretary of Agriculture of the provisions of Public Law 396 enables the states to include not only direct appropriations but donations and gifts of all kinds and also the money derived from the sale of lunches to the children for the purposes of this program. The committee believes that while the Secretary of Agriculture does possess such authority under the permissive provisions of the School Lunch Act, it was never the purpose of Congress that funds derived from the children should be included for matching purposes. . . . The committee believes that the states should by direct appropriations match the money provided by the Federal Government. . . .

However, the federal agency retained the liberal interpretation and did not emphasize state responsibility for supporting the program from tax funds.

Financial Dilemma Increased Each Year

It has always been, and no doubt always will be, difficult to secure all of the tax funds needed to adequately fund all segments of the nation's education programs. Increasing costs and mounting enrollments have kept state and local governments hard pressed to secure needed funds. On more than one occasion the Council of Chief State School Officers and the School Lunch Advisors Committee to the Secretary of Agriculture recommended that additional federal cash assistance be provided to prevent further reduction in the reimbursement rate. They also recommended that state and local governments be encouraged to continue their efforts to provide increased financial assistance to the School Food Service Program. Even so, sufficient funds have not been provided.

When appearing before a Congressional committee in August 1960, Edgar J. Fuller, Executive Secretary, representing the Council of Chief State School Officers, pointed out that federal funds were available to build up staffs of state departments of education in other federal aid areas. States had to pay the entire cost of administering the School Lunch Program, while federal funds eased the way for their competitors. Just this year, for the first time, states have received a small amount of federal aid to help meet state administrative expenses. The funds were released to states so late that many cannot fill the positions created because competent people are already under contract for the year.

Generally those programs which require specified federal matching find it relatively easy to secure needed state and local tax funds. Other assets in securing adequate tax funds are: (a) a well-informed and interested public continuously promoting adequate funds, (b) school finance leaders who are committed to the program, and (c) an adequate staff of knowledgeable state and system level school food service personnel responsible for administering the program.

The school food service program has suffered on all three scores. The U.S. Department of Agriculture has never required or even urged states to appropriate funds for the program. Federal publicity has led the public to believe the program is well financed through commodities and reimbursement. Federal public information releases have never emphasized that the

program was growing and costs were rising faster than was the federal appropriation, and that it was becoming more under-funded with each passing year. For example, reimbursement rates were originally 9¢ per lunch, when food cost averaged 18¢ per lunch. Now reimbursement rates average less than 5¢ per lunch, while food costs have almost doubled. At both state and local school system levels, too few school finance leaders have promoted the provision of tax funds to support the program. Furthermore, at state and local levels, the school food service programs have been so understaffed that school food service administrators have had no time to conduct studies to determine unmet needs, to keep the public informed, or to promote legislative appropriations.

With the federal government's "war on poverty" and the civil rights movement placing increased emphasis on the plight of the poor, the Congress in 1965 passed the Elementary and Secondary Education Act. In planning the projects under which ESEA Title I funds were to be disbursed, many states and districts budgeted monies to supplement their inadequate National School Lunch funds. An analysis of some 500 Title I projects revealed that more than 100 provided for breakfasts or expanded school food service programs.

Other recently enacted federal aid laws designed to help the poor, including funds secured through the Economic Opportunity Act, have been used to supplement inadequate school food service appropriations. Only a small portion of the most inadequately funded school food service programs received help from such sources. Accounting problems were increased and most programs were still unable to meet all of their funds obligations. Some results of such uncertain and inadequate funding have been: (a) All economically needy pupils have not been served. (b) Many schools in areas of high economic need have not initiated programs. (c) Lunches are often substandard. (d) Sale prices have been increased with a resultant decrease in participation. For example, in Florida, participation increased from 67 percent in 1963-64 to 73 percent in 1965-66. Then sale prices began to go up, and participation for over 1,500 schools dropped to 66 percent in 1967-68. By contrast, in about 200 Special Assistance schools in areas of high economic need, where sale prices were low and 15¢ reimbursement rates were paid, participation averaged 87 percent.

Other bad effects of underfunding include understaffing and employment of undertrained personnel. Following the 1966 Amendment to the Fair Labor Standards Act, which resulted in minimum required pay rates for school food service personnel, payroll costs skyrocketed. For example, in many areas a 5¢ per year hourly pay increase was considered good for school food service personnel. Now for the next two years, the minimum required rate of increase is 15¢ per hour.

The Congress, in continuing its consideration of ways and means to alleviate hunger among the poor, passed the Child Nutrition Act of 1966. It provides funds for pilot programs to help close the nutrition gap for economically needy pupils and for pupils who come to school without breakfast because they have long bus rides. It also provides a token appropriation for equipment essential to extending or maintaining school food services in areas of high economic need. As is

the case with the school food service program, the funds are inadequate and the requirements are so restrictive that often the school in greatest need of a breakfast program cannot afford one. For example, some breakfast programs have such a high percent of free meals, that they cannot make ends meet. In January, one school in Florida served an average of 256 pupils per day, 249 of whom were served free. Receipts were:

	Pupil Payments.....	$ 35.75
	Reimbursements ...	569.50
	TOTAL	$605.25
Costs were:	Purchased Food	569.50
	Labor	283.50
	Non-food Supplies ..	68.53
	TOTAL	$921.53
Commodities:	$320.15	
	DEFICIT	($316.28)

The School Lunch Program is not financially able to underwrite the labor and non-food costs of the breakfast program. Such schools will be forced to discontinue their breakfast programs unless they can receive reimbursement to cover more than the cost of purchased food.

Another result of war on poverty has been a revision of USDA regulations regarding services for economically needy children. The Secretary of Agriculture estimated that 2.5 million economically needy still are not being served. As states implement the new requirements, the number of economically needy will increase rapidly, the school lunch balances will disappear just as rapidly, thus increasing the need for greater state and local tax support.

Congressman Perkins, Chairman of the House Committee on Education and Labor, last year asked the 50 state departments of education to determine their unmet needs and how much it would cost to assure that all the economically needy children in the nation could receive a free or reduced price breakfast and lunch. State school food service directors reported a need for $100 million. The Secretary of Agriculture reported states could use only $50 million. The Congress appropriated an additional $50 million, earmarked for breakfasts, lunches, and equipment for feeding economically needy. Some states are now over-encumbered and will have to discount final claims for the year.

There has long been a need for sound research to determine the total school day nutrition needs of pupils, and how much it would cost to meet those needs. I am delighted to report, therefore, that the USDA has just tentatively approved a grant of funds to be used in conducting a School Food Service Finance Research Project, as a satellite project to the National Education Finance Project. Your help and that of many other school finance experts will be needed, and is solicited.

Concerned Outsiders Aid Program

As the public became more concerned over hungry children, they learned of the school food service financial dilemma. In the April 1966 issue of *Ladies Home Journal,* there appeared an article entitled "The Scandal of Our School Lunch Program," which criticized schools for not meeting the school day nutrition needs of all the pupils and recommended that parents rise up and demand that facilities and other assistance needed to correct this deficiency be provided from tax funds.

Bard summed up the situation, saying that the school lunchroom is starved for facilities and funds to serve

the proper food to the children who need it.[8]

Their Daily Bread, a report of a national school food service study conducted by five prominent national women's organizations, recommended that lunch sale prices be reduced to a maximum of 20¢, that federal tax funds equal 9¢, and state tax funds also equal 9¢; and that "The Congress, USDA, Boards of Education, state legislators, school lunch administrators should begin planning now for a universal free school lunch program as part of a coordinated plan for better nutrition for all children."[9]

The support of such groups is appreciated and continues to be needed even though some of their recommendations may be controversial or an alternate plan may be better. For example, adequate matching requirements need to be developed and implemented, but a formula that takes into consideration the varying abilities of states would be better than one that required all states to make the same matching efforts.

At a recent seminar, Jean Fairfax, Chairman, Committee on School Lunch Participation which produced the report, *Their Daily Bread,* challenged us when she said;

> It is to be regretted, I think that the initiative for the changes have not come from the professional group closest to the children and the groups which really should be the contributors to children's needs and advocates of program to meet these needs. I'm speaking about the school administrators, principals, teachers and school food service personnel.

The war on hunger and the effort of outside groups have placed the school food service program in the national limelight.

Despite this current limelight situation, too few education leaders seem to realize that the climate is right and that school food service is on the brink of a major breakthrough. With the help and encouragement of school finance experts, the scales will tip in favor of an adequately funded school food service program. On the other hand, foot-dragging indifference, or opposition on the part of school finance leaders just now can do irreparable damage to the program. Should school food service finance policies be changed? What would it cost to provide tax funds to cover the non-food cost of the program?

Johns, in a return appearance at the 20th annual convention of the American School Food Service Association in 1967, said that

> evidence is clear that we need a major revision in our policies for financing the school food service program.
>
> What revisions should be made in our policies for financing the school lunch program? Most authorities on the school food service program have advocated for some time that all non-food costs of the school food service program be financed entirely from public funds. This is certainly the minimum support that should be provided from public funds. I consider this to be a conservative recommendation. . . . There is considerable evidence available in support of providing for the entire cost of the school food service program from public funds.
>
> What would be the present cost of financing the non-food costs of the school food service program? *It would probably cost somewhere between fifteen and twenty cents per lunch to finance the operating non-food costs of the school lunch program.* This would total only a little over one billion dollars annually, less than two-tenths of one percent of our gross national product. *Certainly a nation that can afford to spend several billions of dollars annually to place a man on the moon*

[8] Bard, Bernard. *The School Lunchroom: Time of Trial.* New York: John Wiley and Sons, 1968. p. 77.

[9] Committee on School Lunch Participation. *Their Daily Bread.* Atlanta, the Committee, 1968. p. 125.

can afford a billion to one and one-half billions of dollars to assist in providing 50,000,000 children a decent lunch each school day.

Since then, costs have continued to spiral, and so has the gross national product. Therefore, it is estimated that the cost of the program Johns recommended would still not exceed .2 of 1 percent of our gross national product, an infinitesimally small cost compared with the values of the program in building healthy bodies, developing good food habits, enriching the curriculum in many areas, increasing and stabilizing the agriculture industry, and aiding the general economy.

Conclusion

In most states, state legislatures and local boards of education have not contributed their fair share toward the support of the program.

One of the greatest needs is for school food service directors and school finance officials to work together to cooperatively develop sound school food service finance objectives to commit themselves to an adequate school food service finance plan, which will take into consideration the inequities in school district ability to finance the program.

If adequate funds are provided, breakfast programs will be initiated where needed and there will be fewer tardy pupils. The many pupils who have been coming to school without breakfast will be teachable all day rather than just in the afternoon. Adequate lunches will reduce absences, delinquency, and dropouts, and save the cost of many grade repeaters. The pupils' potential contribution to society will be improved. In addition, the agriculture industry will be further expanded and stabilized, and the nation's general economy will be strenghtened.

Recommendations

Hungry children do not learn much at school. To be sure there are to be no hungry children at school, it is recommended that jointly we work aggressively to achieve a school food service program that will:

1. Provide nutritionally adequate lunches for pupils, and where needed, supplementary food services, including breakfasts, and morning and afternoon nourishments.
2. Establish sale prices not to exceed the cost of food for both pupil meals and supplementary nourishments.
3. Provide free and reduced price meals for economically needy children.
4. Receive sufficient tax support to assure program excellence.
5. Receive increased federal, state, and local tax contributions sufficient in amount to cover:
   a. All costs of administration, operation, payrolls, fringe benefits, and staff development.
   b. All costs of facilities, equipment, replacements, and repairs.
   c. All other non-food costs.
   d. Cost of serving free and reduced price meals to economically needy pupils.
6. Effect economies through centralization of purchasing, personnel administration, and funds control; and mergers of small, ineffective units, to provide more adequately sized administrative and operational units.

Financing the School Food Service Program at the Local Level

Irene Y. Ponti

SCHOOL LUNCH programs have been and are now progressing through a transitional stage and are emerging as school food services and assuming their full stature and potential in the educational complex, dedicated to meeting the needs of all pupils, all day long, all year long, and for all meals. Today school food services are involved in serving breakfasts, mid-morning snacks, lunches, afternoon supplements, and suppers and dinners to paying and nonpaying pupils, school personnel, and preschool children, and even meals to retired persons.

In the United States, the accepted prevailing policy is for school food service programs to be operated on a self-sustaining basis. Cash payments for meals and the national average of less than 5¢ cash federal subsidy per pupil lunch represent total income from which all bills for labor, fringe benefits, food equipment repairs and replacements, cleaning supplies, and paper goods must be paid. As with all segments of our economy, costs are spiraling alarmingly. In addition to inflation, there are specific reasons for these escalating expenditures resulting from new developments in the American way of life.

Food allocations from the U.S. Department of Agriculture have not increased concomitantly with program expansions. Futhermore, the costs of storing and delivering these "free" commodities have more than doubled in the past few years. When smaller amounts of donated foods are available, more food must be purchased at the local level, thus adding to costs. Another related factor is the gregariousness of modern youth who are constantly traveling, eating in drive-ins and fast food establishments which cater to students. In school, modern day students are demanding more choices and better choices of foods, especially meats, which are increasingly costly.

Currently, the introduction and expanding use of convenience foods, labor shortages, and high wages are changing equipment requirements (e.g., potato peelers are obsolete). Eventually, with increasing acceptance, appropriate design, and reduced costs, the use of disposables will phase out dishwashing equipment, to be replaced by giant disposal units. This equipment reduces disposable items to an odorless pulp approximately one-fifth of its former volume

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and suitable for land fill operations. Such a system is now in use in Queen Anne's County High School in Maryland.

To offset the spiraling costs of food, labor, and equipment, centralization of administration and consolidation of districts has been recommended for increasing efficiency and reducing costs. Centralization of administration in a school district implies more than the management of the department from a central office by the school food service director. It means that the school food service department is integrated into the central office of the school system. Many departments operate under this policy, but too many function autonomously. Income, payrolls, and bill payments should be processed by the appropriate school personnel. With the introduction of data processing, computers, and automation, these functions can be more efficiently performed in the central office. The financial control of the food service department must remain the responsibility of the food service director. With relief from certain bookkeeping and clerical chores, the latter can devote all his skill to solving the complex problems of operating a modern school food service department—menus, food service, personnel, purchasing, equipment, facilities planning, training, publicity, nutrition education, and classroom visitations.

Purchasing methods in a school district, if not constantly evaluated, may lead to costly inefficiencies. Centralized purchasing and bid buying are universally recommended, but not practiced in many areas. In central purchasing, schools, districts, and even the state may be involved in a consolidated purchasing unit. For example, in Connecticut, annual contracts are made by school districts for bread. Flour, shortening, and dried milk are donated directly to the successful wholesale baking company, resulting in a 25 percent to 30 percent saving in the price of bread to schools. Annual contracts are fairly common for such items as milk, bread, and ice cream. Grocery items, cleaning supplies, paper goods, and disposable items are also suitable for annual contract purchasing. State supervisors of school food service programs can render greater service in this area by seeking prices directly from manufacturers and packers and submitting approved specifications and price lists to local districts for their use.

Spiraling wages probably contribute more to the financial dilemma facing school food service programs than any other operational cost. In 1966, the federal minimum wage law was extended to cover school food service workers. At the present time, this minimum wage is $1.30 per hour; next year it will increase to $1.45; and in 1971 will reach $1.60 per hour. At the time of enactment, in certain areas of the United States, school food service workers were earning as little as 65¢ per hour. Local programs paying workers less than minimum wages were forced to seek additional funds or close down programs.

In addition to the minimum wage, consideration must be given to the prevailing wage in the area, which may be even higher than the federal and state established minimums. Industry is competing with school food service departments for employees. Help wanted advertisements feature "hours adjusted for mothers with school age children." A well developed plan for employee recruitment, with increasing wages and increasing fringe benefits for employees, is one of

the newest and most challenging developments in the school food service segment of the food industry.

Even as teachers are joining unions, so too, are food service personnel in schools. Recent changes in collective bargaining laws permit municipal employees to belong to a bargaining unit. Unions with their experience, knowledge and sophistication have pressured school boards to approve staggering wage increases and fringe benefits. Two school districts in Connecticut are in serious financial difficulties because of approval of union contracts without adequate provision for funding the wage commitments in the contracts. The school business administrator and the food service director must be involved in the collective bargaining process to avoid such financial difficulties.

In a recent study of seven school districts in six states, it was found that the actual cost of productive labor was the hourly rate, plus a 50 percent additional cost to cover such items as fringe benefits, sick time, and down time. A nationwide study of fringe benefits for school food service workers might well indicate that the fewer fringe benefits, resulting in a higher wage might attract more and better workers. School food service employees, like teachers, should have the option of choosing more benefits or more take-home pay.

To solve the critical financial situation, with which school food service departments are confronted, the local school district must appropriate funds for all salaries and wages of supervisory and food service personnel as for all other school employees. Today, communities are underwriting the wages for such newly created positions as bus matrons, teacher aides, and lunchroom monitors. Only the school food service department payroll is excluded from the local budget. John Stalker, Massachusetts State Director of School Lunch Programs and Nutrition Education, "believes firmly that the cost of all school food service labor should be budgeted in the school budget. School food service employees are city or town employees and should not be set apart or singled out as a group, to receive their salaries and benefits from funds provided by the children who participate in the lunch program." In Massachusetts, approximately 70 percent of all communities pay the entire cost of the central supervisor, and 67 districts provide funds for total labor costs from appropriations.

With the publication of such books and studies as *Hunger, U.S.A.*,[1] *The School Lunchroom*,[2] *Their Daily Bread*,[3] TV programs, and newspaper articles on hunger and malnutrition in the United States, the inadequacies of today's school food service programs are documented by authors not directly involved in food services in schools. Only 36.5 percent of the nation's children received a nutritionally adequate lunch in fiscal 1968, primarily because of insufficient financial support, lack of facilities, and substandard operational procedures.

Increasing prices to offset escalating expenditures compound the financial problems of school services. Decreased participation and overstaffing result. Also, the program

[1] Citizens' Board of Inquiry into Hunger and Malnutrition in the United States. *Hunger, U.S.A.* Washington, D.C.: the Board, 1968. 100 p.

[2] Bard, Bernard. *The School Lunchroom: Time of Trial.* New York: John Wiley and Sons, 1968. 190 p.

[3] Committee on School Lunch Participation. *Their Daily Bread.* Atlanta: McNelley Rudd Printing Service, 1968. 135 p.

serves only the affluent, not the majority, and certainly not those whose needs are greatest.

Where no facilities or inadequate facilities exist, a comprehensive, in-depth study must be made of present facilities and space, food service inadequacies, and future school feeding requirements. All possible solutions must be examined and evaluated. Central kitchens, satellite kitchens, central commissary, convenience foods, hot food systems, cold food systems, tray pack lunches, bag lunches, and even stand-up counters offer possible solutions. No one system can be recommended as best for school districts of similar size, socioeconomic population, and geographic location. The recently completed *School Lunch Study*[4] recommends a central kitchen providing food for all Boston schools, including those without facilities. In New York City, the central kitchen is being discontinued, being replaced by single unit kitchens.

Authorities in school finance, leaders in school food services and recommendations from recent publications, all are in agreement that feasible solutions to financing are available. Advance and adequate funding from federal, state, and local sources is mandatory. The planning-programming-budgeting (PPB) system design can effectively be applied to school food services. At the present time, a PPBS research project is being developed by the Research Corporation of the Association of School Business Officials and the Board of Public Instruction of Dade County, Florida, funded by the U.S. Office of Education, and administered by William H. Curtis as Project Director.

[4] Boston Public Facilities Commission. *School Lunch Study*. Boston: Ganteaume and McMullen, 1968.

Recommendations for solutions to expansions of school food service programs dedicated to meeting the needs of a target population of 80 percent or higher are as follows:

1. *Sale prices to pupils not to exceed cost of food.* Free lunches must be available for needy pupils. This policy has been approved as a "basic belief" by the Board of Directors of the Association of School Business Officials and the Executive Board of the American School Food Service Association, who are currently sponsoring a project to develop a "Guide for Financing School Food and Nutrition Programs."

2. *Establish a maximum sale price of 20¢,* as recommended in *Their Daily Bread.* Needy pupils to be served free meals.

3. *Provide free school lunches for all children,* advocated by such authorities in school finance as R. L. Johns, by *Their Daily Bread,* and by leaders in school food service as a long-range goal.

Tax support funds must be budgeted to meet the increasing financial needs of school food service programs. To reach the goal of no hungry child in America as mandated by the Congress, school food services must be adequately financed, as education itself is, from increased federal, state, and local sources.

Recommended Procedures

1. Local school districts must determine the target population to be served lunches and supplementary meals.

2. Sale prices must be those the target population can afford.

3. Local tax support funds must be budgeted to supplement income inadequate for financing necessary expenditures.

National Educational Finance Project

R. L. Johns, Kern Alexander, and *Richard A. Rossmiller*

THE NATIONAL Educational Finance Project (NEFP) is a cooperative endeavor, funded under Title V, Section 505, of the Elementary and Secondary Education Act, involving state departments of education, universities, and the U.S. Office of Education in the study of contemporary problems in financing education.[1] The project represents the first systematic effort to study comprehensively all state systems of school finance and to critique them in the light of current educational needs and trends.

The project is designed to accomplish three major objectives: (a) identify, measure, and interpret deviations in educational needs among children, school districts, and states; (b) relate variations in educational needs to the ability of the school district and state to finance appropriate educational programs; and (c) conceptualize various models of school finance and subject them to consequential analysis to identify the strengths and weaknesses of each model.

Need for NEFP

The NEFP is being undertaken at a time when conventional approaches to financing education are under sharp attack. Legally and historically the 50 states bear primary responsibility for establishing and supporting a system of free public education for their citizens, although in many states much responsibility for the day-to-day operation of public schools has been delegated to local school districts and boards of education. Decentralization of the organization for education traditionally has been accompanied by a heavy reliance on local property taxes to support public elementary and secondary schools which, as Cubberley noted long ago, leads to great disparities in the quality of local education programs. Since the beginning of the present century, authorities in school finance have attempted to conceptualize and implement school fi-

[1] Support for specific satellite research projects within the NEFP also is being provided under titles IV and VI of the Elementary and Secondary Education Act. In addition, negotiations with the U.S. Department of Agriculture for the funding of a study of school food services are in progress. (Editor's note: After this paper was presented, the Department of Agriculture funded the research project on the financing of school food services.)

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nancing programs which will equalize educational opportunities for all children within a state and, at the same time, allocate equitably among the taxpayers of the state the taxes required to finance such programs. Today, however, state programs for financing public education increasingly are proving inadequate to meet the demands generated by the pressure of contemporary expectations for the schools. Among the factors contributing to this disarray are:

1. A growing awareness of the importance of providing an adequate education for all citizens; for example, population mobility makes the poorly educated child in any state a potential concern of citizens of all other states.

2. An increasing recognition of the need for differentiated educational programs for individuals and groups having special learning needs; for example, the emotionally maladjusted, culturally deprived, or intellectually gifted learner.

3. A developing understanding of the importance of human capital to the well-being of a "brain-intensive" economic system.

4. A burgeoning use by the federal government of appropriations earmarked for educational programs, that is, categorical aids designed to accomplish specific purposes deemed to be in the national interest; for example, programs to offset disadvanatages resulting from cultural and/or economic deprivation.

5. A growing disparity between the revenue available to the schools from traditional sources and the amount of money needed to mount programs which satisfy societal demands; for example, property taxes, the only major source of revenue available at the local school district level, not only are reaching their limit in many school districts, but are not well related to the sources of income in an industrialized urban society.

6. An expanding population to be educated in the public schools resulting both from population growth and from the rapid extension of free public education at both ends of the traditional age range, that is, to the early childhood and the post-high-school years.

7. A complex of population shifts which has produced a flight to suburbia from the cities by relatively affluent, middle-class Americans and a movement to core cities by poorly educated and unskilled members of minority groups so that cities are faced with a great influx of "high cost" citizens (in terms of their consumption of public services) at the same time that their revenue potentials are declining.

Indicative of current dissatisfaction with existing programs for financing education are equal education opportunity suits claiming that the state support program is unconstitutional in that it denies to pupils in various types of school districts equal protection under the law as guaranteed by the Fourteenth Amendment. Also noteworthy are the proposals advanced recently by such noted educators as Conant and Allen that the state abandon local property taxes for education and assume complete responsibility for financing its public schools. It is against this background and within this context that the NEFP has been launched.

Administrative Structure of the NEFP

The project is administered by the Florida State Department of Education. The director of the project is R. L. Johns, Professor of Educational

Administration, University of Florida; the associate director is Kern Alexander; and the finance specialist is Richard Rossmiller. Three committees have been organized to establish policy for the project and to provide advice and counsel to the director and central staff. These are:

1. The Project Committee which serves as a policy board and as consultants for the technical design of the project: Edgar L. Morphet of the University of California, Erick L. Lindman of the University of California at Los Angeles, William McLure of the University of Illinois, J. Alan Thomas of the University of Chicago, and James A. Kelly of Columbia University.

2. The Advisory Committee which advises the director concerning project design and operation: Henry Cone of the Education Commission of the States, James Gibbs of the U.S. Office of Education, Eugene P. McLoone of the National Education Association, and Will Myers of the Advisory Council on Intergovernmental Relations.

3. The Coordinating Committee made up of the chief state school officers (or their representatives) of nine of the cooperating states: Floyd T. Christian, Florida; Ira Polley, Michigan; Duane J. Mattheis, Minnesota; Newell J. Paire, New Hampshire; James Allen, Jr., New York; Dale Parnell, Oregon; J. W. Warf, Tennessee; J. W. Edgar, Texas; and T. H. Bell, Utah.

The over-all plan of the NEFP incorporates two significant concepts in programmatic research directed toward the solution of contemporary educational problems. First, in the initial plan of the project adequate time and sufficient funding were provided to develop comprehensive and detailed plans for the specific research to be conducted. Second, the project represents a unique approach to programmatic research in education in that "satellite" studies will be conducted by researchers in a network of universities across the nation in cooperation with state departments of education. This approach has made it possible to assemble a research team composed of recognized authorities in school finance, regardless of where they are located.

Design of the Study

The NEFP comprises four separate but interrelated and overlapping phases. Phase I of the project (June 10, 1968, to January 31, 1969) was devoted primarily to planning and developing a comprehensive project design. The design of the project involved a joint effort by school finance consultants from universities, state departments of education, and other agencies and organizations interested in school finance. In addition, legislative leaders in all states received questionnaires asking them to identify what they believed were the most serious problems in financing education in their respective states. Drawing upon these authorities and resources, the central staff completed the project design in January 1969.

Parameters of Educational Need

Phase II of the project, which extends from February 1, 1969, to May 31, 1970, will draw upon systems analysis concepts, particularly Planning-Programming-Budgeting Systems, to delineate the parameters of educational need. A major obstacle to the development of financial support programs which will provide equitably for the needs of persons in *all* school

districts is the proclivity to equate educational need with the gross number of pupils to be served, that is, the failure to differentiate between the varying educational needs of identifiable target populations which the schools either are now serving or should be serving. By identifying the target groups to be served by various education programs, and the unique educational needs of each target group, this phase of the research will facilitate planning, programming, and budgeting to meet these needs, as well as provide a format within which it will be possible to perform meaningful operations analysis.

To accomplish the objectives of Phase II, several authorities in school finance will conduct satellite research projects designed to establish the parameters of educational need of the target groups served by each of the following programs:

1. Programs for regular elementary and secondary school pupils—William P. McLure, University of Illinois

2. Programs for early childhood education (pre-first grade)—William P. McLure, University of Illinois

3. Programs for exceptional children (gifted or behaviorally disabled children)—Richard A. Rossmiller, University of Wisconsin

4. Programs for compensatory education (culturally handicapped children)—Arvid J. Burke, State University of New York at Albany, and James A. Kelly, Teachers College, Columbia University

5. Programs for vocational and technical education—Erick L. Lindman, University of California at Los Angeles

6. Programs for junior college education—James L. Wattenbarger, University of Florida

7. Programs for adult and continuing education (non-college)—J. Alan Thomas, University of Chicago

In each of these satellite projects the investigators will seek to (a) identify or develop criteria for identifying the target population to be served, (b) develop accurate estimates of the number of persons in each target group, (c) indicate the nature of the educational programs needed to meet the needs of each target group, that is, how they differ from the regular educational program, and (d) determine the cost differentials in such programs.

The first step toward accomplishment of the objectives above will be the preparation of papers which explore the parameters of educational need in each of the program areas above. Each paper will be prepared by a member of the central staff or the project committee in collaboration with a recognized authority in the program area. In preparing these papers the literature concerning each program area will be reviewed to ascertain the extent to which data are available concerning target populations, educational programs, and cost differentials, and to identify the additional research needed to accomplish the objectives of Phase II. Investigations designed to provide the needed data will then be conducted. To obtain these data, each investigator will select a sample of states in which may be found exemplary programs for the target population under study. (Exemplary programs are defined as those programs which have been demonstrated by empirical evaluation to be effective or, where empirical evaluation is not available, which are advocated by authorities in the field as being most likely to be effective.) An attempt will be made to include in the sample states which

are representative of particular problems—such as sparsely populated and densely populated states, states having concentrations of culturally or economically disadvantaged persons or minority groups, states having high and low per-capita incomes, and the like—and to provide geographic dispersion of the sample (insofar as these criteria are compatible with obtaining a sample of states which have exemplary programs).

Data concerning the general characteristics of exemplary educational programs for the target population under study, and the costs associated with such programs, will be obtained from records maintained by the state department of education and interviews with state department of education personnel. To obtain specific data concerning characteristics of exemplary programs for the target group under study, a sample of local school districts will be drawn in each state. An attempt will be made to include in the sample, school districts of varying size and varying social, economic, and demographic characteristics. On-site visits will be made to the school districts included in the sample to (a) describe explicitly the nature and characteristics of the program; (b) identify the criteria for participation in the program, the number eligible to participate in the program, and the number actually participating; (c) determine the specific additional costs incurred in providing the program; (d) establish the relationship between the cost of the special program and the cost of the regular school program; and (e) obtain any empirical evidence which may be available concerning the efficacy and benefits of the program under study.

It should be noted that an identical sample of states and school districts will not be employed in each investigation. Rather, the primary criterion employed in selecting the sample for each study will be the existence of exemplary educational programs for the target group under study. It also should be noted that the primary concern in these investigations is for the cost differentials between special and regular educational programs, not for the absolute dollar amounts expended for such programs. While it is recognized that expenditures per pupil for both regular and special programs vary from one school district to another, it is assumed that the cost differential—the ratio of the cost of the special program to the cost of the regular program—for special educational programs for various target groups will not vary significantly from one district to another. The validity of this assumption, of course will be tested in the course of these investigations.

The data obtained from the sample of states and the sample of school districts will be analyzed to determine the general nature and characteristics of exemplary programs for the target population under study, with particular attention directed to similarities and differences in the programs. Additional costs attributable to each program will be aggregated, cost differentials will be computed for each program category in relation to the cost of the regular educational program, and a range of differential costs will be established. Program needs will be projected to 1980, based on standard population projections, trends in the population in the target group, and costs associated with educational programs for such persons. In summary, these investigations will provide a framework within which educational needs may be expressed

in a programmatic format, both quantitatively and qualitatively.

Educational Facilities

A satellite research project dealing with provisions for financing the construction of educational facilities also will be undertaken during Phase II by W. Monfort Barr, Indiana University. This study will provide detailed data concerning current provisions for financing schoolhouse construction in the various states and will identify the problems implicit in these provisions.

Concurrent with the Phase II activities outlined above, the central staff will undertake research which will delineate the objectives served by state support programs, describe the models of state support now in use, and indicate the extent to which existing state support programs satisfy contemporary educational needs. These studies will include the following:

1. Identification and classification of state school funds
2. Identification and analysis of provisions which tend to either discriminate against or favor certain types of school districts
3. Trends in the use of local nonproperty taxes
4. Equalization effect of federal programs of school support
5. Extent of equalization achieved by existing state support programs.

The result of these studies will be used to assist in conceptualizing and formulating models of school finance.

Fiscal Capacity of School Districts and States

Phase III of the project (July 1, 1969, to October 1, 1970), which overlaps Phase II, will be directed toward examining the relative fiscal capacity of states and school districts. Two satellite research projects will be conducted in this phase: (a) a study of fiscal capacity among states and school districts and (b) a study of the impact of school district reorganization on state support programs.

The first investigation will be conducted by Richard Rossmiller at the University of Wisconsin and will examine the fiscal capacity and tax effort of states, hypothetical regional taxing jurisdictions within states, and local school districts. A sample of approximately eight states will be utilized. The states comprising the sample will be selected to obtain wide geographic dispersion; to include at least one state in each quintile (by rank) on distributions based on per-capita income, income per person age 5-17, and state-local taxes as a percentage of per-capita personal income; states with large urban centers and states primarily rural in character; and states which have a large number of local school districts and states which have a small number of local school districts.

Within each state a sample of approximately 15 to 25 school districts will be selected for intensive study. The sample will be stratified to include core city, suburban, independent city, and rural school districts. Consideration also will be given wealth (as measured by personal income and/or property value) in selecting the sample of districts. The data to be gathered for each school district will include information concerning both educational services and all other public services. Comparisons of fiscal capacity and tax effort will be made, using property value and personal income as bases and using expenditures for education, for all other public services, and for edu-

cation and all other public services combined.

School District Structure

The second satellite study, to be conducted by Clifford Hooker at the University of Minnesota, will focus upon the relationship of school district organization to state aid distribution systems. State support provisions concerning school district reorganization and other statutory provisions which affect school district reorganization will be identified by a survey of the 50 states. This survey will provide data which will be utilized to select a sample of states which provide a range of situations with regard to provisions for school district reorganization. From states in this sample will be obtained various data regarding the interaction between fiscal provisions and school district reorganization, and various hypotheses concerning this relationship will be tested.

Concurrent with these two satellite projects the central staff will examine support programs for pupil transportation, particularly the transportation needs of pupils in urban areas, and current provisions for financing retirement programs for public-school personnel. In addition, three background papers will be prepared. The first, will provide general economic projections and revenue estimates, a discussion of the role of education in the economy, and an analysis of the various tax sources from which revenue for the support of education might be obtained. The second will examine the financial implications of the adoption of collective bargaining or professional negotiation procedures in education. The third will explore the implications for financing education of private sector activity in education; for example, the cost of contracting certain service activities, such as transportation and feeding, or of certain instructional activities, such as behind-the-wheel instruction for driver education, as well as the cost of providing various types of aid, such as textbooks, for pupils attending private schools.

Analysis of Educational Finance Models

Phase IV (June 1, 1970, to June 30, 1971), which culminates the project, requires the integration and synthesis of knowledge and insights acquired in the preceding phases to conceptualize, develop, and test educational finance models which will harness the fiscal resources of local school districts, states, and the federal government so as to adequately fund the educational program needed to serve the diverse needs of all citizens. It is *not* the objective of this phase of the project to identify a single "best" model for financing education. Rather, the objective is to test several feasible models against a common set of criteria so that policy-makers may be cognizant of the explicit strengths and weaknesses of various models as they consider alternative models of school support. In conducting the consequential analysis of each educational support model, answers will be sought to such questions as:

1. To what extent will the model enable every child to have access to an educational program which will facilitate maximum development of his human potential, that is, to achieve equalization of educational opportunity defined in terms of meeting varying individual needs?
2. To what extent will the model provide for equity among taxpayers in distributing the financial burden of supporting education (and other local government services)?
3. To what extent will the model provide for equitable treatment of local school dis-

tricts of widely varying socioeconomic, demographic, and geographic characteristics; for example, densely populated urban areas and sparsely populated rural areas?

4. To what extent will the model encourage efficiency in the use of the resources allocated to education?

5. To what extent will the model stimulate or inhibit experimentation and innovation in the schools?

6. What effect will the model have on the locus and quality of various types of educational decisions, for example, curriculum, personnel, facilities, and the like?

The specific models to be tested cannot be identified at this juncture, since the data developed in Phase II and Phase III will strongly influence the models which are identified and analyzed. However, it is expected that several of the educational finance models currently in use in the various states will be subjected to analysis. These would include such models as the Strayer-Haig and the Morphet-Johns foundation program models; incentive models employing procedures advocated by Updegraff such as are now in use in Wisconsin and Rhode Island; flat-grant models; and models utilizing both general and categorical aid. It should be emphasized that the listing above is illustrative, not exhaustive; that other models now extant, proposed, or yet to be devised will also be tested.

Conceptually, educational finance models can be viewed as consisting of two distinct though interrelated components, revenue models and allocation models. Implicit in practically all revenue models currently employed in educational finance programs is the notion of a state-local partnership in which a significant portion of the total revenue is derived from locally levied taxes, primarily taxes on property. Embedded in each revenue model is a value judgment, arrived at through the political process, concerning the share of revenue which should be provided by each "partner"—the state and the local school district. In recent years a third "partner," the federal government, has become increasingly active in financing education, although debate concerning the propriety of the new partner's involvement has not completely abated. Thus, several possible revenue models will need to be considered in Phase IV. These include, for example, the possible use at the federal level of revenue sharing, block grants, categorical aid, or some combination of them. At the state-local level, the possibility of complete state financing must be considered, as well as the possible use of local non-property taxes, either levied and collected locally or as supplements to taxes levied and collected by the state. It is expected several revenue models will be subjected to consequential analysis.

In the matter of allocation models, most educational finance models currently in use purport to base the distribution of funds to local districts on their educational need *vis à vis* their ability to meet their need. Typically, distribution models deal with educational need in terms of such variables as pupils (weighted or unweighted), classroom units, miles transported, and the like. Allocation models may consist of general aid for all or most school purposes, categorical aid for specific purposes, or a combination of them. They may provide the same number of dollars for each pupil or differentiated amounts based on various categories of pupils (e.g., elementary and secondary). They may require matching contributions by local districts with or without regard to their fiscal capacity, or they may be provided without regard to local contribution. Thus, several allocation

models will need to be considered and subjected to consequential analysis.

Computer programs will be written for each of the educational finance models to be tested, and simulation procedures will be employed to test each model. A number of hypothetical school districts will be constructed to reflect the various program and fiscal variables identified and quantified in Phase II and Phase III. These hypothetical school districts will be employed to demonstrate the effect of various educational finance models on school districts having varying economic and demographic characteristics. The computer programs for the various educational finance models will be available for use by individual states that wish to analyze the effects of the adoption of various models on their school districts.

Long-Range Planning for Public Education–A Texas Example

Glenn H. Ivy

BY MOST STANDARDS of interstate comparison, Texas ranks near the bottom in educational effort and achievement, in part because it usually stands about 34th in per-capita income. Despite these hard facts, the Texas Legislature in 1965 authorized the establishment of a 15-member Governor's Committee on Public School Education and gave it a mandate to prepare a definite long-range plan for national leadership. To prove it was serious, the Legislature appropriated $250,000 for a three-year study, with no strings attached, and gave the Committee permission to seek additional funds from federal and private sources. More than a million dollars has been invested in the project from all sources.

So far as we could determine, no state has ever adopted a specific long-range plan for public education, even though it represents the largest expenditure item in nearly all state and local budgets. Perhaps this lack of state planning can be traced to the decentralized nature of most statewide public education systems. Or perhaps it is because legislative bodies are notoriously reluctant to adopt long-range financial commitments, particularly if they are accompanied by painful short-range reforms. Whatever the reason, we found few landmarks to follow.

Mr. Ivy is Director, Governor's Committee on Public School Education, Austin, Texas.

The Texas Context

To provide perspective for the proposed long-range plan, it may be useful to sketch in the outlines of the state-wide public education system and program in Texas. Some of the salient characteristics include:

1. *Organization*—Approximately 1,200 local districts enroll about two and a half million pupils, but more than two-thirds have fewer than 1,600 pupils each. There are 43 districts with more than 10,000 pupils each, and about 700 districts with fewer than 500 pupils each. There are still 144 elected county school superintendents (out of 254 counties). Twenty regional educational service centers, operating under autonomous boards, were established in 1967. The 21 members of the State Board of Education are elected from districts based on the 1930 census. They appoint the Commissioner of Education.

2. *Program*—Texas has a defined Minimum Foundation Program which has had no basic changes since its adoption in 1949. Personnel are allotted on formula ratios to average

daily attendance, and the ratios are weighted in favor of small districts. Operating funds are based on teacher allotments, pyramiding the subsidy for small systems. Transportation formulas generally exclude city school children. Textbooks are furnished free by the state under a state adoption system.

3. *Staff benefits*—Texas has a liberal state minimum salary schedule, and local districts are reimbursed in terms of the degrees and experience of personnel employed under the foundation program. The state bears the full cost of an attractive retirement plan.

Conducting the Study

The Committee employed approximately a dozen full-time professional staff members, recruited primarily from the public school system. Three principal consultants were retained: Erick Lindman, Finance—University of California, Los Angeles; Alex Frazier, Program—Ohio State University; and Herbert LaGrone, Staffing—Texas Christain University.

Extensive data were collected from questionnaires and field interviews and from a wide variety of reports regularly filed by local districts with the state education agency. Contract research included: (a) testing of 67,000 high-school seniors (half of the state total) by the American College Testing Program, Inc.; (b) a study of actual property values in all local districts; (c) opinion polls of 500 teachers and 1,000 other adults; and (d) extensive data processing and analysis.

The Research Findings

Enrollment and Resource Projections

Early background research for our study turned up a study by Mushkin and McLoone forecasting a nationwide stabilization of school enrollments.[1] A careful projection of school-age children, college graduates, and personal income for Texas led us to the conclusion that the 1970's offered a once-in-a-lifetime opportunity to make major improvements in the quality of our state-supported educational program. The projections indicate that we will have fewer pupils in grades 1-12 in 1979 than we have this year, even if we achieve a Committee goal of a 20 percent increase in high-school graduation rates. At the same time, the products of the post-World War II "baby boom" will be entering the labor market and contributing to an expected 60 percent increase in personal income. They will also swell the pool of professional talent available to the schools to the extent that we can expect a net surplus in the supply of teachers for most of the next decade. (See Tables 1 and 2.)

Factors Affecting Educational Achievement

Other research findings were a good deal less encouraging. Texas has about three million undereducated adults between the ages of 14 and 49. Our state ranks 44th in adult literacy and 42nd in school holding power. Only six of ten beginning students graduate from high school, and many of the graduates score at the ninth-grade level (or below) on senior tests. We found there were no accurate records on either dropouts or graduates after they left the public school system.

Using dropout rates and ACT scores as primary yardsticks of performance, we made an extensive re-

[1] Mushkin, Selma J., and McLoone, Eugene P., *Local School Expenditures: 1970 Projections*. Chicago: Council of State Governments November 1965. 84 p.

TABLE 1.—PROJECTED PUBLIC SCHOOL ENROLLMENTS IN TEXAS, 1967-68 THROUGH 1979-80

Years	Estimated public school enrollment (thousands)*		
	Elementary	Secondary	Total
1	2	3	4
1967-68	1901.7	715.9	2617.6
1968-69	1914.3	738.3	2652.6
1969-70	1912.8	755.5	2673.3
1970-71	1915.7	770.3	2686.0
1971-72	1898.7	787.8	2686.5
1972-73	1866.8	804.3	2671.1
1973-74	1834.9	813.6	2648.5
1974-75	1797.2	828.6	2625.8
1975-76	1764.4	842.3	2606.6
1976-77	1750.2	850.3	2600.5
1977-78	1740.7	852.3	2593.0
1978-79	1744.6	844.3	2588.8
1979-80	1758.9	836.4	2595.3

Source: Estimates by staff of Governor's Committee on Public School Education.
* Based on goal of 80% graduation by 1980.

gression analysis in an attempt to discover what inputs to the educational system might have a significant influence on its productivity. The input factors included most of the traditional measurements associated with educational quality such as pupil-teacher ratios, teacher qualifications (degrees and experience), per-pupil expenditures, and number of courses taught in the high school. To these we added a number of student and community characteristics including the ethnic composition of the school and school district, the average income level of the community, the average educational level of the community, and the market value of property per pupil in the district. The income and educational levels of the community proved to be the most reliable performance predictors. Of course, the ethnic composition of the district was closely associated with these socioeconomic characteristics. None of the other factors was statistically significant.

In a separate evaluation, ACT reported that size of graduating class was directly related to average scores on senior tests. This finding corresponded with the results of a previous study by the Oklahoma State Regents for Higher Education, using ACT results which also found that students from small districts scored significantly lower on the tests.[2]

Effectiveness of State Financial Equalization

Although most of the high risk pupils (with educational handicaps based on family background) are concentrated in the metropolitan areas of Texas, the large school districts are severely penalized in the distribution

[2] Oklahoma State Regents for Higher Education. *In and Out of College*. Report 1: The First Year. Oklahoma City: Oklahoma State Regents for Higher Education, October 1964. p. 31.

TABLE 2.—PROJECTED LABOR FORCE AND TOTAL PERSONAL INCOME FOR TEXAS, 1969-1978

Years	Estimated labor force (thousands)	Estimated income (in billions)	
		In constant 1958 dollars	Actual level
1	2	3	4
1969	4,551	$26.8	$31.4
1970	4,670	28.0	33.3
1971	4,797	29.2	35.4
1972	4,928	30.6	37.6
1973	5,065	32.0	40.0
1974	5,207	33.4	42.5
1975	5,355	35.0	45.2
1976	5,495	36.6	48.0
1977	5,640	38.2	51.0
1978	5,788	40.0	54.1

Source: Estimates by staff of Governor's Committee on Public School Education.

of state school aid. We found, for example, that districts with more than 10,0000 pupils have an average of $32,500 of taxable property at market value per pupil, compared with an average of $65,000 per pupil for the rest of the state. Yet the large districts get an average of $30 less per pupil in state aid.

State financial discrimination against the urban districts comes in two forms: (a) the defined minimum program does not cover the personnel and operating expenses of a modern school system, and (b) the formulas which are supposed to produce an equalized local financial effort are badly skewed in favor of rural areas. Texas is one of four states which still cling to an Economic Index as the basis for determining property taxpaying ability among its 254 counties. Within each county, the share assigned to each local district is based on its percentage of the county tax roll as reported by an elected county tax assessor. We found, for example, that the assessor for Tarrant County was reporting about 7 percent more taxpaying ability for the Fort Worth School District than its actual values would justify. This difference alone meant more than a half million dollars in lost state aid each year. A threatened lawsuit immediately produced some relief for Fort Worth.

Staffing analysis—During the years of rapid enrollment increases, Texas, like most states, faced a chronic teacher shortage. Low salaries were blamed for the shortage, and every session of the Texas Legislature faced popular demands for increasing the state mandated minimum salary schedule, with the state paying about 80 percent of every increase.

Our research indicates that at least in recent years, the shortages of personnel have been concentrated largely in a fairly limited geographical area among a relatively small number of districts. These districts were grouped in South Texas, particularly along the Mexican border, and they were characterized by high percentages of Mexican-American pupils, low property values, and minimum salaries. They were isolated from the major teacher-training centers and most of the urban attractions. By contrast, most of the major systems pay from $500 to $1,000 a year above the minimum, and pressures from local teacher organizations force them to maintain that differential whenever the state schedule is raised. Across-the-board increases in the minimum schedule have little effect on these concentrated teacher shortages unless they create a surplus large enough to force some teachers to accept undesirable positions at the minimum scale.

The teacher opinion poll conducted for our Committee indicated that work load is the primary issue of concern for most teachers, with salaries running a distant second. (Incidentally, this finding has recently been replicated in a poll conducted by the NEA Research Division.[3]) We found that most men teachers (nearly 9 in 10) would be glad to work on a year-round schedule in return for an adequate annual salary, but about half of the women prefer the long summer vacation.

More than 98 percent of the teachers and other professionals in Texas have at least one college degree, and 34 percent have a master's degree. Yet a substantial number do not take any further formal training after receiving

[3] National Education Association, Research Division. "Teachers' Problems." *NEA Research Bulletin* 46:116-17; December 1968.

a permanent teaching certificate. We also found that most of the teacher training institutions in Texas were lagging behind in the development of new instructional systems techniques.

The Long-Range Plan

Our Committtee proposed a long-range plan containing three major component parts: (a) a Basic Foundation Program, (b) a State Supplemental Aid Program, and (c) a State Developmental Program. The plan calls for scheduled expansion of existing formulas and addition of new programs over the 10-year period from 1969-70 through 1978-79. We estimate that the total cost of all state-supported public education programs (from combined state, local, and federal sources) would exceed $2 billion a year at the end of the decade, compared with $840 million in 1968-69. This would represent a cumulative increase of about $7.5 billion over present spending levels in the 10-year period, not counting construction and debt retirement. With the student population stabilized, the per-pupil expenditure would more than double.

Basic Foundation Program

By 1978-79, the proposed Basic Foundation Program for districts with more than 2,600 average daily attendance would include the following features:

1. One academic or vocational teacher for each 24 pupils
2. One supporting professional and one paraprofessional aide for each 100 pupils
3. An operating allowance of $55 per pupil, with a bonus allowance of $400 for each vocational teacher
4. Reimbursement of up to $60 per eligible pupil for actual transportation expenses.

County-wide districts with 1,600 pupils could operate on the same program, with a minimum guarantee of 33 high-school teachers. The 33-teacher minimum is designed to provide 50-55 secondary courses on a 24-to-1 pupil-teacher ratio with a limit of

TABLE 3.—PROPOSED EXPANSIONS IN PERSONNEL AND OPERATING ALLOWANCES

School year	Teachers [a]	Supporting professionals [a]	Paraprofessional aides [a]	Operating allowance [b]
1968-69 [c]	1/24.7 ADA	3.5/1,000 ADA	None	$23.00/ADA
1969-70	1/24.7 ADA	3.5/1,000 ADA	None	23.00/ADA
1970-71	1/24.7 ADA	3.5/1,000 ADA	1/500 ADA	25.00
1971-72	1/24	1/250	1/500 ADA	27.00
1972-73	1/24	1/250	1/200	27.50
1973-74	1/24	1/167	1/125	28.00
1974-75	1/24	1/143	1/100	28.50
1975-76	1/24	1/143	1/100	39.00
1976-77	1/24	1/125	1/100	44.50
1977-78	1/24	1/125	1/100	50.00
1978-79	1/24	1/100	1/100	55.00

[a] Additional personnel unit for major fractions.

[b] Transportation allowance formulas not included. Present transportation reimbursement based on type of road, length of route, size of bus, and number of pupils transported would be replaced by per-pupil reimbursement formula in 1971-72. Textbooks are furnished by the state.

[c] Present averages. Formulas are graduated by size of district and generally tied to teacher allotments.

three separate course preparations. This would ordinarily require a high school of about 800 students and a total enrollment of about 2,600 in 12 grades. All other county-wide districts (with less than 1,600 ADA) would operate under a program and budget approved annually by the State Board of Education at a cost not to exceed $1,000 per pupil. Every effort would be made to provide a comprehensive, individualized curriculum for small districts in sparsely settled areas of the state by using mobile laboratories and consultants, modern communications technology, programmed instructional materials, etc. Regional offices of the State Department of Education would supervise those programs.

Table 3 shows the proposed schedule for expanding current features and adding new components of personnel and operating costs to the basic program for comprehensive districts during the decade.

TABLE 4—SCHEDULE FOR INSTALLATION OF STATE-SUPPORTED KINDERGARTEN AND SUMMER SCHOOL PROGRAMS UNDER THE BASIC FOUNDATION PROGRAM

School year	Basic kindergarten qualifying age	Basic summer school state appropriation limit [a]
1968-69	None	None
1969-70	None	$ 4 million
1970-71	None	17 million
1971-72	None	30 million
1972-73	None	41 million
1973-74	5 yrs., 7 mos.	52 million
1974-75	5 yrs., 7 mos.	63 million
1975-76	5 yrs., 4 mos.	63 million
1976-77	5 yrs., 4 mos.	63 million
1977-78	5 yrs.	63 million
1978-79	5 yrs.	63 million

[a] Includes appropriation for "educationally handicapped" pupils from deprived backgrounds as a priority feature.

Provision of paraprofessional aides would receive priority in personnel formula expansion to permit early relief in teacher work loads, the number one issue for most teachers. By 1971-72, each teacher would be guaranteed 10 hours per week free from instructional assignment to provide time for lesson preparation, conferences, grading papers, inservice training, and other professional purposes.

The Basic Foundation Program would also be expanded by the addition of state support for kindergarten and summer school programs, according to the schedule in Table 4.

The basic foundation kindergarten program is scheduled to be initiated in 1973-74 to correspond roughly with the projected decline in elementary-school enrollments. A priority program of preschool education for "educationally handicapped" children from non-English speaking and/or low-income families would be initiated in 1969-70, as discussed under the Supplemental Program.

Coupled with the expansion of personnel formulas would be some major changes in the statutory restrictions on personnel classes and qualifications and in the state minimum salary schedule. State law now limits foundation program personnel to five broad categories: (a) teachers, (b) principals, (c) counselors or supervisors, (d) special service units (including physicians, nurses, visiting teachers, itinerant teachers, and librarians) and (e) superintendents. Formula ratios are provided for each of the classes except superintendents. Of course, local districts shuffle these classifications around to fit other personnel requirements such as assistant superintendents, business managers, and tax administrators. By the same token, there is constant pressure to expand

TABLE 5.—TEXAS STATE PUBLIC EDUCATION COMPENSATION PLAN

Pay grade	Percent of base	Key job	Base salary		Annual salary by years of experience									
			Month	Annual[a]	1	2	3	4	5	6	7	8	9	10
1	50	Aide I	$ 300	$ 3,000	$ 3,150	$ 3,310	$ 3,480	$ 3,650	$ 3,830	$ 3,930	$ 4,030	$ 4,130	$ 4,230	$ 4,340
2	60	Aide II	360	3,600	3,780	3,970	4,170	4,380	4,600	4,720	4,840	4,960	5,080	5,210
3	75	Aide III	450	4,500	4,730	4,970	5,220	5,480	5,750	5,890	6,040	6,190	6,340	6,500
4	80	Teach. Trne. I	480	4,800	5,040	5,290	5,550	5,830	6,120	6,270	6,430	6,590	6,750	6,920
5	90	Teach. Trne. II	540	5,400	5,670	5,950	6,250	6,560	6,890	7,060	7,240	7,420	7,610	7,800
6	95	Nurse, R.N.	570	5,700	5,990	6,290	6,600	6,930	7,280	7,460	7,650	7,840	8,040	8,240
7	100	Teacher, B.A.	600	6,000	6,300	6,620	6,950	7,300	7,670	7,860	8,060	8,260	8,470	8,680
8	110	Teacher, M.A.	622	6,620	6,950	7,300	7,670	8,050	8,450	8,660	8,880	9,100	9,330	9,560
9	115	Teach. Spec. Duty	690	6,900	7,250	7,610	7,990	8,390	8,810	9,030	9,260	9,490	9,730	9,970
Instructional, Administrative and Service Personnel														
10	120	Grade I	720	7,200	7,560	7,940	8,340	8,760	9,200	9,430	9,670	9,910	10,160	10,410
11	125	II	780	7,500	7,880	8,270	8,680	9,110	9,570	9,810	10,060	10,310	10,570	10,830
12	130	III	780	7,800	8,190	8,600	9,030	9,480	9,950	10,200	10,460	10,720	10,990	11,260
13	140	IV	840	9,240	9,702	10,186	10,692	11,231	11,792	12,089	12,386	12,694	13,013	13,343
14	150	V	900	9,900	10,395	10,912	11,462	12,034	12,639	12,958	13,277	13,607	13,948	14,300
15	175	VI	1,050	11,550	12,133	12,738	13,376	14,047	14,751	15,125	15,499	15,884	16,280	16,687
16	200	VII	1,200	13,200	13,860	14,553	15,279	16,038	16,841	17,259	17,688	18,128	18,579	19,041
17	300	VIII	1,800	19,800	20,790	21,835	22,924	24,068	25,267	25,894	26,532	27,192	27,874	28,567

LIMITATIONS ON THE PERCENTAGE OF PERSONNEL BY PAY GRADE FOR STATE REIMBURSEMENT

Pay grade	Special teachers			Supporting professionals (10/1000 ADA)
	1971-72	1972-73	1973-on	
9[b]	10%	15%	20%	20%
6-7				20
8				20
10				25
11				5
12[c]	5	10	15	5
13-17				5
Total	15%	25%	35%	100%

[a] Basis for annual salary amounts for pay grades 1-12 would be 10 months; pay grades 13-17 would be 12 months.
[b] "Special duty teachers" such as school publication supervisors, and speech and drama instructors.
[c] "Teacher leaders" such as department heads, team leaders, and other specialists.

the formula provisions to include these additional classes.

The proposed new formulas would provide only the broad statutory classes of teachers, supporting professional and paraprofessional aides. The State Department of Education would be empowered to authorize a wide variety of professional classes and set the qualifications in keeping with the responsibilities. In addition, local districts would be able to classify 15 percent of their teachers as "teacher leaders" and 20 percent as "special duty teachers," both at higher pay scales. The only statutory restrictions would be on the level of state reimbursement.

The proposed pay schedule is indexed on a base salary of $600 per month for beginning bachelor's degree teachers. The present schedule is tied to a nine-month term. It would be lengthened to 10 months in 1970-71, providing a two-step pay increase during the next biennium. The proposed salary schedule includes 10 annual increments for experience (5 percent for each of the first five years, 2.5 percent for the next five), as shown in Table 5.

The objective of the proposed new compensation plan is to provide the flexibility needed for differentiated teaching staff within the context of a defined state program. It is patterned on a pay plan for other state employees which has been in effect in Texas for several years.

To offset the factors producing teacher shortages, we have proposed that the State Department of Education be permitted to give local districts authority to hire at one or two grades above the minimum salary to which an employee would otherwise be entitled. This authority might be extended to entire isolated districts, to schools in core city areas, or even to whole personnel classifications such as science teachers. The amount which could be expended for this recruiting would be limited to 1 percent of total personnel costs under the state program.

One further proposal would permit additional latitude under the defined program concept. Up to 10 districts per year would be granted authority to experiment with any kind of innovative program, provided the cost did not exceed the average per-pupil cost for the rest of the state. To cite an extreme example, a district might contract with a private educational corporation to take over the entire instructional program.

The Basic Foundation Program would be financed from a joint state-local effort. Each district would be required to raise an amount equivalent to a rate of 20¢ times each $100 of actual market value of property within the district. The beginning rate would be graduated 1¢ per year until it reached a maximum of 30 cents per $100 in 1979-80. No district would have its local share raised by the equivalent of more than 5¢ per $100 of value in any one year. (The current range is from 2¢ to 35¢ per $100 among the 1,218 districts.) The state would pay all of the remaining costs of the guaranteed programs from its various resources.

In technical terms, the local contribution to the state-financed program could be called a state-imposed, locally collected property tax. The estimates of market value would be made by the State Department of Education, using assessment-sales ratio studies and sample appraisals for property not regularly exchanged such as oil refineries. Current local shares would be based on market

value two years earlier, providing lead time for local financial planning. A market value index for 1969-70, based on 1967-68 tax rolls, was prepared as a part of our study.

Supplemental State Aid Program

Beyond the Basic Foundation Program, we have proposed the establishment of a package of state-financed supplemental programs. Their primary objectives would be dropout prevention and adult educational reclamation, and the state would use both its own resources and applicable federal assistance to fund the projects.

The Supplemental Program for children from deprived backgrounds would include:

1. Priority in preschool programs for five-year-olds and eventual programs for four-year-olds
2. Priority in summer school programs
3. An additional allotment of one supporting professional, one paraprofessional aide, and $1,500 for each 100 children in elementary grades of designated schools.

In a sense, the proposed Adult Education Program is a part of the coordinated effort to reduce the number of dropouts. Our research indicates that the average level of education within a community is the single most relevant factor in school holding power. We reasoned that a program of adult education might help to reinforce parental interest in preventing their children from dropping out.

Texas is one of several states which now face federal court suits designed to overturn their state school aid programs under the 14th Amendment to the Constitution. A group of Mexican-American parents from the San Antonio area have filed a complaint against the Governor, the State Commissioner, and the State Board of Education, charging that the present program is discriminatory because it does not provide equal opportunity in terms of individual ability. We believe the proposed Supplemental Aid Program would help meet this charge, and may be essential to the preservation of the broader foundation program.

Developmental Program

A number of state-financed programs to encourage school district reorganization, decentralization of major metropolitan systems, cooperation by districts in joint projects, and improved personnel training have been combined under the heading of developmental programs:

1. *Reorganization Incentive Aid*—Operating savings under the Basic Foundation Program formulas achieved by more efficient-size operating districts would be returned to the reorganized systems for 10 years. It is estimated that these funds would approximate $20 million a year for investment in new facilities or retirement of existing capital debt.

2. *Severance Pay*—Any professional employee displaced by reorganization would be entitled to a year's pay at state expense.

3. *Instructional Support Allotments*—Districts with more than 50,000 pupils which adopted an approved plan for decentralization into community education systems of at least 10,000 pupils each would be eligible for a state allowance of $10 per pupil. Districts which entered into cooperative agreements for services, such as data processing and computer-assisted instruction, summer school programs, and educational television networks, would be eligible for a state allotment of $10 per pupil. These funds would

probably be administered through regional service centers.

4. *Development Leaves*—Professional personnel would be eligible for a paid leave equivalent to a college semester at four- or five-year intervals (depending on the length of their contract year). This program would start in 1974 coinciding with projected personnel surpluses.

5. *Personnel Training Programs*—Up to 25,000 undergraduates, beginning at the sophomore level, would be given the opportunity to work as paid teacher aides and assistants as a part of their professional preparatory program. Up to 100 interns would also be trained at state expense, with priorities on preparation of specialists to work in core city schools.

6. *Examination and Evaluation*—Prospective teachers would be required to take the National Teacher Examination (or a similar test) at state expense as a part of their certification requirements. A comprehensive program of student testing and follow-up would also be funded by the state.

As in the case of the Supplemental Program, the state would apply available federal funds to the financing of the developmental programs. Our basic objective was to outline a comprehensive program of public education to be guaranteed by the state, regardless of the availability of federal aid.

Structural Reorganization

To make possible a comprehensive program of public education throughout the state of Texas at a reasonable cost, our Committee proposed a plan for establishing a system of competent local districts. The plan would require that all districts have 2,600 pupils or be county-wide in size by 1971. Using these standards, the Committee staff drew up a set of reorganization maps which would reduce the current 1,200-plus districts to about 350. We proposed that the legislature adopt these maps as tentative guides and authorize the establishment of county-wide study committees which would have about a year to consider the proposals and suggest alternatives. Most of the program expansions recommended in the long-range plan would be postponed until after 1971, the target date for completion of reorganization.

Status of the Proposals

The long-range plan proposed by the Texas Committee on Public School Education would provide a massive transfusion of state aid for the large school districts, particularly those with high percentages of disadvantaged children. It would require a major increase in the contributions of rural districts to the state program.

As might have been predicted, the rural areas have united in a near solid front of opposition to the reorganization and tax equalization features, and their elected representatives hold key positions in the Texas Legislature. The urban electorate has been slow to recognize or understand the issues, despite a concerted effort on the part of our Committee to explain the long-range plan. A 30-minute color movie, prepared in about 50 copies, has been shown nearly a thousand times. Most of the major television stations have used it at least once. A digest of Committee recommendations was distributed through the *Texas Outlook* magazine to 140,000 educational personnel by the Texas State Teachers Association. An additional 30,000 copies of the Digest and 15,000 copies

of the full report have been distributed to service groups and individuals. There have been dozens of endorsements by major school boards, chambers of commerce, and other influential groups. Despite this broad-scale campaign, the most favorable thing we could say about the prospects for adoption of the proposed long-range plan is that the issue is still in doubt.

Revision of State Support Programs

Vernon Sletten

MONTANA HAS had more than the usual number of studies, commissions, and committees, and has tried, since 1963, a semi-automatic association between support schedules and costs. This may give some insight into the complex role of property taxes in support programs.

From Crisis to Crisis

Montana's "foundation program" was enacted in 1949 and substantially revised in 1963. The studies, commissions, committees are a familiar story in any state. Following is a chronology of events prior to 1963:

1945—Establishment of a "Governor's Commission" (Paul Mort was a consultant)
1947—Failure of district reorganization and foundation program legislation
1947—1949—State and county committee organization for study
1949—Failure of reorganization legislation and passage of a foundation program (combination of the fixed unit and variable equalizing grant; general purpose allocation; a pupil-unit base; moderate county levy only partially tied to distribution of state monies; a permissive area ahead of voted levies; a floor or minimum cost base; millage and participation limits)
1957—1959—Legislation and appropriation for a Tax-Education Commission with a full-time executive secretary ("Peabody Study"; William McClurkin, Erick Lindman, and others)
1957—No legislation passed
1959—1961—Another state commission
1961—Failure of reorganization legislation
1961—1963—Governor's 50-member state study committee
1963—Basic legislative revisions of foundation program.

By 1961 the program was in shambles. Schedules bore no relationship to cost. But some lessons had been learned.

The Bureau of Educational Research and Services at the University of Montana, given the task of preparing models for the state committee, drafted legislation. This legislation was the result of 18 months of close working relationships involving key members of the state committee, the state budget director, the Governor's office, the Department of Public Instruction, the Montana Taxpayers' Association, the Montana Education Association, and legislative leaders of both political parties. The legislation, a complete package of tax change for funding and disbursement design, was passed by the legislature without change.

I should like to draw one inference at this point: *The political process dictates integrated planning such as envisaged by the recommendations of the Advisory Commission on Inter-Governmental Relations and encouraged by the present availability of federal grant money for these purposes.*

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I believe our 1963 legislation had some characteristics not commonly found:

1. A maximum budget per pupil (ADM) based on *median* budgeted expenditures of school systems (size categories) of the current legislative year

2. A county levy tied in with state equalizing grants providing 75 percent (not 80 percent) of the maximum budget

3. An automatic permissive range of the remaining 25 percent (now 20 percent) of the maximum budget

4. Abolishment of all millage and participation limits

5. No limits on voted levies

6. A statutory provision that the Department of Public Instruction would present new schedules based on current median budgeted expenditures to subsequent legislatures and the budget director

7. Deficiency county levies in lieu of insufficient state appropriations.

The program is in deep trouble in the current legislature. The 1965 Legislature threw out the statutory provision in item 6 above. Financing this "Reuther" type of cost-of-operation change brought about by voted levies—a local decision—became the key issues in 1967 and 1969. In 1967, schedules were made current, but only by using heavy county deficiencies. The first day of the 1969 Legislative Assembly saw the introduction of schedule changes, and the unusual introduction of the companion appropriation bill the second week. This was partly to bring out fiscal problems early in the session and partly the result of Republican party action associated with the defeat of a Republican governor who ran on the issue of Montana's joining the ranks of sales tax states. The Democratic victor made effective use of the slogan, "Pay more? What for?" In our state there is little resemblance between state and national postures by party.

The probabilities are strong that the Montana Legislature will reject the automatic schedule adjustment factor used since 1963.

Hagen, senior economist at the MIT Center for International Studies, drew the conclusion that "economic theory has rather little to offer toward an explanation of economic growth, and that broader social and psychological considerations are pertinent." [1]

There is irony in our current fiscal crisis in Montana. We are a primary industry state, with hundreds of small elementary districts shielding industrial, oil, and mineral tax havens. Associating increased county tax levies with available state monies would create only minimal property tax increases in our towns and cities. This is known to and understood all too well by tax lawyers representing these interests. But Hagen's psychological considerations are paramount and I suggest a few inferences:

1. Montana people in general and newspaper editors and reporters in particular have little understanding of tax problems. This cannot be expected of the first group without more activity on the part of the second group.

2. School professionals avoid the funding problems on the absurd premise of "keeping education out of politics."

3. The simplistic cry of educators for more state aid has minimized study of the role of the property tax in state taxation programs. There is virtually no understanding that collec-

[1] Hagen, Everett E. *On the Theory of Social Change: How Economic Growth Begins.* Homewood, Ill.: Dorsey Press, 1962. 557 p.

TABLE 1.—DISTRIBUTION OF PROPERTY ASSESSED VALUATIONS

	Residential (non-farm)	Acreage and farms	Commercial and Industrial	State assessed and other
1	2	3	4	5
United States	47.1%	8.6%	19.3%	25.0%
Arizona	41.9	4.2	12.9	41.0
California	46.9	7.4	17.8	27.9
Idaho	17.0	20.2	19.0	43.8
Iowa	29.2	35.2	10.2	25.4
Montana	20.7	16.9	11.4	51.0
New Hampshire	64.4	2.3	23.2	10.1
New Jersey	66.8	2.4	22.3	8.5
Washington	43.0	12.6	16.7	27.7

Source:
Computed from: U.S. Department of Commerce, Bureau of the Census. Taxable Property Values. 1967 Census of Governments, Vol. 2. Washington, D.C.: Government Printing Office, September 1968. Tables 2 and 5.

tion points do not define and that a locally collected tax may be a de facto state tax. By the usual definitions we are a 25 percent state-aid state. By pragmatic, de facto tests we are a 70 percent state-aid state.

Some Property Tax Consideration

The Advisory Commission on Intergovernmental Relations has stated that our chief sources of state-local revenue represent "something more than a three-legged stool, but less than a sturdy four-legged structure." [2] The Commission's 1966 data give these approximations of state-local revenue:

Property taxes—$26 billion
Consumer levies—$21 billion
Federal conditional grants—$17 billion
Income taxes—$7 billion [3]

I suggest that we give more attention to the varying patterns of property distribution state by state and region by region. For example, on the basis of derived data from the 1967 study of *Taxable Property Values* by the Bureau of Census, such disparities as those shown in Table 1 occur. Surely this table suggests differentiated patterns of the use of the property tax. In Montana, residential property comprises one-fifth of the state property tax base and the usual one-half of the base in our large cities and carefully restricted large school districts.

Per-capita property tax collections or property taxes as a percent of personnel income seem highly misleading. Table 2 illustrates this.

Montana is always a high state in property taxes per capita, a low state in property tax-rate studies, and a high state in revenue or expenditures when these are related to income. Montana has no sales tax, a moderate income tax and only 20 percent of its taxable property is in residential housing.

I suggest that in future revision of support programs we look more care-

[2] Advisory Commission on Intergovernmental Relations. *Fiscal Balance in the American Federal System.* Vol. 1. Washington, D.C.: Government Printing Office, October 1967. p. 1.
[3] Ibid.

fully at state and regional differences in property taxation. Systems of collection by school districts and municipalities largely divorced from state tax balance result in needlessly wide differences in property tax effort.

Some Factors Impinging on Future Modifications of State Support Programs for Public Education

Galbraith and others have spoken and written about an affluent society choosing an increasing percentage of goods and services most effectively produced in the public sector. In time of war there is a semi-forced allocation of this sort.

The data in Table 3 indicate the accelerating allocation of resources to the public sector, particularly the state-local level.

Surprisingly, expenditures on public elementary and secondary education seem to have lagged slightly behind the general state-local increases despite enrollment pressures. For 1957-1966 the state-local expenditures rose 115 percent, and public elementary and secondary education expenditures rose 106 percent.[4] Employee increases indicate a similar pattern in allocation of resources (Table 4).

But there is a disturbing pattern in funding that suggests a strong reluctance for deferred gratification in the private consumption area. The expo-

[4] Advisory Commission on Intergovernmental Relations, *op. cit.*, p. 278.

TABLE 2.—PER CAPITA PROPERTY TAX ESTIMATES AND OTHER MEASURES, 1966-67

	State-local revenues for public schools as a percent of personal income	Property taxes per capita	Rate per $100 market value	$1.00 rate per $100 per capita	Relative property tax at uniform rate
1	2	3	4	5	6
United States	4.3%	$132.81	$1.60	$ 83.01	100.0%
California	4.8	215.62	1.70	126.84	152.8
Colorado	5.4	161.39	1.80	89.66	108.0
Idaho	4.6	107.90	.90	119.89	144.4
Louisiana	5.4	52.51	.70	75.01	90.4
Maine	4.2	130.32	2.10	62.06	74.8
Michigan	4.3	144.78	1.60	90.49	109.0
Montana	5.8	167.15	1.20	139.29	167.8
New York	4.8	179.45	2.20	81.57	98.3
Oregon	5.1	148.54	1.60	92.84	111.8
Washington	4.7	110.17	.90	122.41	147.5
Wyoming	6.0	206.81	.80	258.51	311.4

Sources:

Col. 2: National Education Association, Committee on Educational Finance. Financial Status of the Public Schools, 1968. Washington, D.C.: the Association, 1969. p. 71.

Col. 3: U.S. Department of Commerce, Bureau of the Census. Governmental Finances in 1966-67. GF67 No. 3. Washington, D.C.: Government Printing Office, 1968, p. 45.

Col. 4 was computed from: U.S. Department of Commerce, Bureau of the Census. Taxable Property Values. 1967 Census of Governments. Washington, D.C.: Government Printing Office, September 1968. Table 9, p. 42-47. Governmental Finances in 1966-67. GF67 No. 3. Washington, D.C.: Government Printing Office, 1968. Table 17, p. 31-33.

Col. 5 was derived from cols. 3 and 4.

Col. 6 was computed.

TABLE 3.—ALLOCATION OF RESOURCES TO THE PUBLIC SECTOR

Item	Increases, 1958-1968: Implicit price deflators, 1958 = 100	Increases, 1958-1968: Without deflators
1	2	3
Gross National product	21.8%	92.4%
Personal consumption expenditures	18.4	84.0
Government purchases of goods and services		
Federal	26.1	86.6
State and local	38.8	139.2

Source:
91st Congress, 1st. Session. Economic Report of the President, House Document No. 91-28. Washington, D.C.: Government Printing Office, 1969. p. 227, 230-31.

TABLE 4.—INCREASES IN NUMBER OF PERSONS IN LABOR FORCE, 1958-1968

Type of establishment	Increase, 1958-1968
1	2
Total nonagricultural	32.7%
Manufacturing	23.8
Wholesale and retail trade	31.3
Services	54.3
Government	
Federal	24.9
State and local	67.5

Source:
91st Congress, 1st Session. Economic Report of the President. House Document No. 91-28. Washington, D.C.: Government Printing Office, 1969. p. 258.

nential character of deferred obligations private and public is certainly associated with taxpayer revolt, state and local fiscal crises, inflation, and voluntary inability to fund more of the public sector expansion on a current basis (Table 5).

I have examined certain relationships between expenditures per pupil as set forth in *Financial Status of the Public Schools, 1968* and support designs of states as found in the *1965 State Programs for Public School Support.* No relationship, or only a negligible relationship, exists between state rankings in expenditures per pupil and design factors such as inclusion of teacher salaries, teacher or classroom unit, pupil unit, fixed grants, variable equalization grants, and amount of state aid.

A high relationship exists between state ranking in expenditures per pupil and the state rank in personal income per capita. This seems to suggest an undue emphasis on the design of distribution and an insufficient emphasis on funding design and tax balance.

May I summarize some suggested implications for revision of state support programs.

1. Subdue the simplistic emphasis on state aid and emphasize the necessity of adjusting to wide differences in state and regional characteristics of the tax base.

TABLE 5.—NET PUBLIC AND PRIVATE INCREASES, 1958-1968

Type	Increases, 1958-1968
1	2
Government	
Total	101.4%
Federal	26.6
State and local	143.4
Private	
Total	129.2
Corporate	125.8
Noncorporate	
Farm	115.5
Mortgage (nonfarm)	122.9
Consumer	150.1

Source:
91st Congress, 1st Session. Economic Report of the President. House Document No. 91-28. Washington, D.C.: Government Printing Office, 1969. p. 296.

2. Little work is available on the subject of "export of state taxes" and where the consumer is really located as a final resting place for the tax. This seems to be highly associated with questions of equalization from federal sources.[5]

3. Property tax collection and use may be local, but rate fixing and tax balance are state obligations.

4. Foundation program design with emphasis on disbursement of funds may have some of the futility Galbraith ascribes to the esoteric models of some economists. The emphasis should be placed on appropriate tax patterns for particular states and regions.

5. There seems to be reason to believe that the only appropriate center for this coordinating kind of function is the planning center concept associated with a governor's office. With federal support available, every legislature is considering expansion of this function. This is the essence of the 1967 Advisory Commission Report, *Balance in the American Federal System*. Apparently this was the essence of Governor Rockefeller's recent presentation to President Nixon.

[5] McLure, Charles E. "The Interstate Exporting of State and Local Taxes: Estimates for 1962." *National Tax Journal* 20: 49-77; March 1967.

The Determinants of Educational Expenditures in New York State

Lloyd L. Hogan and
Fred H. Bentley

THROUGHOUT THE STATE, expenditures for education are compounded of the specific decisions of more than 730 individual school districts which differ widely with respect to many important characteristics. Differences in these characteristics appear to be associated with differences in level of expenditures. During the 1967-68 school year, per-pupil operating expenditures among school districts ranged from $380 to $1,553; exclusive of the six largest cities these expenditures averaged $834 per district. The distribution of these expenditures is shown in Table 1.

Such wide differences in expenditures have great implications for the quality of education available to pupils in different parts of the state. It is a well-documented fact that adequate finance is a necessary (if not a sufficient) condition for good quality education. While high expenditures do not guarantee good quality education, it is almost impossible to purchase good quality education with insufficient funds. To the extent, therefore, that differential spending among the various districts is indicative of differential quality education, it becomes imperative to isolate those factors which are associated with differences in expenditure patterns.

Another important implication of the wide differences in expenditure levels is the effectiveness of the state financial plan of school support. The state aid formulas in New York State stress the so-called equalization principle, under which an attempt is made to insure equal and adequate quality educational opportunity to pupils throughout the state.

TABLE 1.—DISTRIBUTION OF PER-PUPIL OPERATING EXPENDITURES, NEW YORK STATE SCHOOL DISTRICTS, 1967-68

Operating expenditures	Percent of districts	Cumulative percent
1	2	3
$ 380-671	10%	10%
672-707	15	25
708-764	25	50
765-869	25	75
870-1,044	15	90
1,044-1,553	10	100

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The Expenditure Model

Previous Studies of Expenditure Variations

A 1966 study[1] analyzed the effects of certain factors on expenditure levels of school districts. The main conclusion was that two factors, local resources and location inside or outside the New York City Metropolitan Area, are significant in explaining variations in expenditure levels. The study also suggested that the pattern of expenditures in small school districts and in the six largest cities differs somewhat from that of other districts in the state.

A 1967 study[2] confirmed the previous findings, but suggested the possible operation of other important factors. It concluded that the most important characteristic is the level of local fiscal resources available to the district. Second in importance are location inside or outside the New York City Metropolitan Area, the level of local tax rate for school purposes, and the professional staff-pupil ratio. The method used, however, did not give the numerical impact of the two latter factors.

Hypotheses To Be Tested

Based on the conclusions of previous studies, this study postulated that variations in the level of per-pupil expenditures can be explained by variations in four factors: (a) local property tax base per pupil (X_1), (b) local tax rate for school purposes (X_4), (c) size-location index (X_2), (d) professional staff-pupil ratio (X_3).[3]

In practically all studies the local property tax base has been found to be the most important determinant of expenditure levels even though state aid formulas attempt to neutralize much of its effects. The hypothesis above asserts that this factor in conjunction with the other three, is still significant in explaining expenditure differences. In 1967-68, the per-pupil property tax base ranged from $5,000 to over $224,000. Exclusive of the six largest cities, the average was approximately $25,000. This factor, of course, is not subject to local discretion.

The local tax rate for school purposes is measured by the ratio of local school tax levies to full value of taxable real property. Where nonproperty taxes are levied for school purposes, they are included in the measure. This factor is subject in large part to the control of the local school board. Given the level of state aid, federal aid, and other nontax revenues, the local board's decision to set the tax rate is a decision about the level of expenditures and consequently the type of educational program to be provided to the pupils.

During 1967-68, local school tax rates varied between 0.6 percent and 3 percent, averaging 1.7 percent.

The size-location index is a device for measuring three types of districts whose expenditure patterns appear to be different. Districts outside the New York City Metropolitan Area appear to spend a significantly smaller amount than districts inside the New York City Metropolitan Area. This

[1] Hogan, Lloyd L. *Toward a System of Classification of School Districts in New York State.* Albany: University of the State of New York, January 1966.

[2] Hogan, Lloyd L. "Financial Characteristics of High-Expenditure Districts in New York State." *The Challenge of Change in School Finance.* Proceedings of the Tenth National Conference on School Finance Sponsored by the Committee on Educational Finance. Washington, D. C.: National Education Association, 1967. p. 97-107.

[3] The X's in parentheses refer to variables as indicated in model and reported in the data tables.

may very well be a measure of different economic market conditions. It has been found that small districts tend to have expenditure levels in between the two groups mentioned above. For purposes of this study this factor identified small districts as those having fewer than 1,000 pupils, no matter where they were located. Among the remaining districts this factor identified districts in the New York City Metropolitan Area and those outside the New York City Metropolitan Area. This factor, also is completely beyond the control of local decision-making agents.

The professional staff-pupil ratio, also highly variable, measures the largest single item in the per-pupil operating expenditure budget. For example, in 1967-68, the professional staff per 1,000 pupils ranged from 31 to 98; exclusive of the six largest cities the average was 59. Included in this measure were teachers, administrators, and other certified supporting personnel.

This factor is a strategic one in decisions about the types of educational programs to be provided to pupils. Indeed, it is a partial indicator of the quality of education. It would be a better indicator if it could be subjected to differential weights based on the qualitative characteristics of the professional staff component. In any case, it is subject to local discretion.

The data used in the study were based on a sample of 50 school districts representative of the major school districts (exclusive of the six largest cities) with respect to many important financial characteristics.[4] Once the basic parameters were estimated, the study applied them to all the major school districts in the state which maintain a full K-12 program.

The statistical technique commonly referred to as a multiple regression analysis was used to isolate the specific numerical effect of each of a number of independent factors which jointly explain (or describe) variations in some one dependent variable.

The dependent variable is the per-pupil operating expenditure (Y), a measure defined by the statutes for purposes of state aid distribution. However, in most cases it measures the direct educational expenditures on pupils attending school in the district from kindergarten through grade 12. It is current expenditures exclusive of such auxiliary and highly variable components as school bus transportation, debt service on school buildings, inter-district expenditures, and federal revenues.

The measure of pupils used to deflate the expenditures was the number of pupils in weighted average daily attendance (kindergarten attendance weighted by one-half, first-through-sixth-grade attendance weighted by one, and seventh-through-twelfth-grade attendance weighted by one and one-quarter).

Formal Statement of the Model

A formal statement of the expenditure model is given by $Y=a_1X_1+a_2X_2+a_3X_3+a_4X_4+a_5X_5+a_0+$ error where the "error" term is independent of each variable and normally distributed with a mean of zero and a finite variance. The a's are to be estimated.

The fifth factor included in the model is for statistical completeness. It is the reciprocal of the number of pupils or the ratio obtained by dividing 1.0 by the number of pupils, and accounts for some of the residual ef-

[4] Bentley, Fred H. *An Experimental Sample of the Major School Districts in New York State*, unpublished discussion paper. May 1966.

fects (on gross expenditures) of pupils which were not completely eliminated by the per-pupil data. Justification for its inclusion is a technical matter beyond the scope of this paper.

These assumptions describe a linear regression in which ordinary least squares technique yields maximum-likelihood estimates of the parameters (a_i). However, some of the limitations which inhere in this type of model should be noted.

Limitations of the Model

The postulate of a linear relationship connecting the dependent variable with the independent variables is quite heroic. Very few processes can be described accurately by such a model. At best it is an approximation to reality and was assumed merely for its simplicity and the ease of computation it generates.

The assumption of a normal distribution of the error term does not present great difficulties. Indeed, such a distribution can be used to approximate a wide class of other distributions. Making use of this assumption, however, provided for computational simplicity.

The assumption that the error is distributed independently of the independent variables is equivalent to the statement that the line of causation (antecedence) runs in one direction only—from the independent variables to expenditures. This may be true of the property tax base and the size-location index. Staff-ratio or tax rate, however, appears to depend on expenditures.

For example, if the decision of local boards is primarily an educational program decision, a given program determines an expenditure level. But given the expenditures (under existing systems of state-school financial support), a corresponding local tax rate is implied. Under these circumstances the level of expenditures may be said to "cause" the level of tax rate. Similar possibilities hold with respect to the interaction between staff-ratio and expenditures.

The problem here is obviously one of interdependence, suggesting that the appropriate model should be a simultaneous equation model consisting of at least three equations. The one-equation model postulated here is thus to be taken as an initial probe of reality which gives a broad description of expenditure variations rather than a cause-and-effect relationship.

The Model as Testable Hypotheses

The major hypothesis underlying the model was that the four factors, taken together, were significant in explaining variations in per-pupil expenditures among the major school districts.

A secondary set of hypotheses postulated that the specific numerical effect of any given factor on expenditures was significantly different from zero, when the effects of all other factors were held constant.

Estimate of the Expenditure Model from Sample Data

General Properties of the Estimated Model

Table 2 shows the estimated regression coefficients as well as other related measures.

The chief result of the estimates of the model was that the five factors jointly accounted for 87 percent of the variation in operating expenditures among the districts in the sample.

The 13 percent unexplained variation is still of practical importance. It implies a standard error of estimat-

TABLE 2.—REGRESSION EQUATIONS RELATING PER-PUPIL OPERATING EXPENDITURES TO FIVE EXPLANATORY FACTORS, NEW YORK STATE SCHOOL DISTRICTS, 1963-64 TO 1967-68

Factor	Symbol	School year					Standard error of 1967-68 estimates	Student T-test
		1963-64	1964-65	1965-66	1966-67	1967-68		
		Regression coefficient						
1	2	3	4	5	6	7	8	9
1. Property tax base per pupil	X_1	3.60	3.21	4.63	3.76	3.99	0.68	5.80
2. Size-location index	X_2	42.51	45.65	40.61	49.59	51.74	12.06	4.29
3. Professional staff-pupil ratio	X_3	7.19	8.14	4.55	7.19	6.42	1.47	4.29
4. Local school tax rate	X_4	4.20 *	4.59 *	8.04	8.15	8.28	2.39	3.46
5. One-pupil ratio	X_5	—23,556	—30,087	—14,635 *	—30,372	—34,075	8,821	—3.86
6. Constant term	1	109.29	94.88	164.63	148.30	163.06	52	..
Index of determination	R^2	0.86	0.82	0.84	0.86	0.87	..	..
Standard error	σ	40	50	49	51	52	..	..

* Not significant at the 5 percent level of significance.

ing operating expenditures from this model of $52 per pupil. For New York City, for example, this could mean an error of estimating the school budget by as much as $51 million; similarly, for a school district like Buffalo this could imply an error in estimating the school budget by as much as $3.5 million.

Undoubtedly some of the unexplained variation might be the result of errors in measurement of operating expenditures, or the existence of highly peculiar local circumstances, or simply random and unpredicable behavior of those responsible for the construction of school budgets. However, further research needs to be conducted to test for the systematic operation of one or more additional factors not now included in this model, since this is probably the main source of the unexplained variation. A factor such as the quality of the staff readily suggests itself as a candidate for inclusion in the model.

Table 3 shows the actual and estimated expenditures for the sample of 50 districts.

The Specific Impact of the Factors in the Model

One of the questions raised by this study was whether each of the individual factors was significant in explaining expenditure variations among school districts. A related question concerned the order of importance of the factors.

The conclusion to be drawn from the estimated model is that each of the five factors is statistically significant. The last column of Table 2 shows that the calculated value of the student T-ratio for each of the parameters varies in absolute value from 3.5 to 5.8; i.e., greater than 2.7 required for 1 percent level of significance.

The magnitude of this ratio gives some indication of the relative importance of each of the factors. Table 2 suggests that the property tax base is the most significant; the professional staff ratio is the second most important although all of the remaining variables are not too far behind.

Temporal Stability of the Model

The usefulness of a model of the type developed in this study is the extent to which it can predict the expenditure level of any given school district from estimates of the values of the independent variables. Since the model is based on cross-sectional data for a given year, its prediction of future expenditures will require that the numerical values of the parameters remain constant over time (or at least vary according to some systematic pattern) and that the same independent variables are operative from year to year. This is what we mean by the stability of the model.

Five Estimates of the Model, 1964-1967

In addition to the estimates for 1967-68 the same model was estimated from sample data for 1963-64, 1964-65, 1965-66, and 1966-67. These estimates are shown in Table 4.

Over the five years the same five independent variables jointly account for 86 percent, 82 percent, 84 percent, 86 percent, and 87 percent, respectively, of the variation in per-pupil operating expenditures; the corresponding implied standard errors are $40, $50, $49, $51, and $52. Furthermore, all five regressions are significant at the 1 percent level based on the F test.

In all of the years the direction of influence of each of the factors on per-pupil operating expenditures is the

TABLE 3.—COMPARISON BETWEEN ACTUAL AND ESTIMATES OF OPERATING EXPENDITURES BASED ON FIVE CHARACTERISTICS FOR THE 50 SAMPLE DISTRICTS, NEW YORK STATE, 1967-68

School district	Operating expenditures per pupil				Expenditure estimators				
	Actual	Estimated	Error	Rating	Property tax base per pupil	Size-location index	Professional staff-pupil ratio	School tax rate	Pupils
1	2	3	4	5	6	7	8	9	10
Green Island	$935	$941	$ 6	0.86	$35,393	0	82.9	$16.86	410
Alfred 1	665	597	—68	—0.97	14,860	—1	49.7	12.32	1,086
Bolivar 1	685	641	—44	—0.63	10,773	0	52.1	13.89	941
Dickinson 1	818	736	—82	—1.17	19,201	—1	58.0	19.14	3,776
Vestal 1	732	685	—47	—0.67	18,870	—1	55.4	15.97	8,057
Olean	806	648	—158	—2.26	21,194	—1	50.6	13.78	4,152
Salamanca	748	613	—135	—1.93	11,343	—1	52.3	14.15	2,449
Clymer 1	678	624	—54	—0.77	13,709	0	55.4	9.84	867
Dunkirk	741	776	35	0.50	52,088	—1	51.2	11.65	3,397
Hancock 6	725	603	—122	—1.74	15,117	—1	51.9	11.84	1,292
Kenmore	702	709	7	0.10	32,492	—1	48.6	15.14	22,690
Mariah 1	751	670	—81	—1.16	13,467	—1	60.2	14.91	1,363
Saranac Lake	806	749	—57	—0.81	33,755	—1	53.7	15.98	1,696
Broadalbin 1	645	619	—26	—0.37	15,269	—1	50.0	13.97	1,219
Stratford 1	760	804	44	0.63	12,609	0	67.3	21.01	327
Catskill	710	730	20	0.29	41,414	—1	53.9	10.99	2,170
Windham 1	766	757	—9	—0.13	30,173	0	61.3	12.04	522
Ilion	716	656	—60	—0.86	17,050	—1	54.5	14.59	2,605
Avon 1	694	669	—25	—0.36	23,554	—1	49.3	15.14	1,258
Lima 9	784	749	—35	—0.50	16,640	0	60.6	17.33	578
Brookfield 9	844	848	4	0.06	7,768	0	70.5	25.50	227
DeRuyter 1	785	721	—64	—0.91	11,712	0	53.2	20.01	790
Pittsford	839	816	—23	—0.33	37,609	—1	56.1	19.22	5,400
Levittown	851	819	—32	—0.46	14,994	1	54.2	23.75	17,611
Roosevelt	993	898	—95	—1.36	24,136	1	65.8	21.97	3,736
Oyster Bay	1,209	1,036	—173	—2.45	57,938	1	68.2	18.78	2,698
Niagara Falls	809	724	—85	1.21	25,592	—1	56.6	16.02	19,038
Bridgewater 1	661	620	—41	—0.59	11,040	0	46.1	14.43	282
Camden 1	695	607	—88	—1.26	11,158	—1	53.6	13.06	2,838
Rome	678	616	—62	—0.89	16,833	—1	54.1	11.36	11,719
Liverpool	768	740	—28	—0.40	22,019	—1	59.7	17.66	9,132
Richmond 1	714	723	9	0.13	26,229	0	52.8	14.24	653
Kendall 7	762	640	—122	—1.74	11,743	—1	55.6	14.91	1,222
Albion 2	783	568	—215	—3.07	11,326	—1	50.2	11.11	1,493
Springfield 1	640	670	30	0.43	19,735	0	50.8	13.19	354
Schaghticoke 1	675	618	—57	—0.81	13,014	—1	49.3	15.11	1,459
Gouverneur	811	743	—68	—0.97	13,975	—1	58.6	22.14	2,868
Morristown 1	677	656	—21	—0.30	15,[illegible]9	0	47.8	15.07	628
Bath 1	600	531	—69	—0.99	8,949	0	46.2	7.50	649
Babylon	921	882	—39	—0.56	30,135	1	56.6	21.83	2,579

TABLE 4.—COMPARISON BETWEEN ACTUAL AND ESTIMATES OF OPERATING EXPENDITURES BASED ON FIVE CHARACTERISTICS FOR THE SIX LARGEST CITIES, NEW YORK STATE, 1967-68

School district	Operating expenditures per pupil				Expenditure estimators				
	Actual	Estimated	Error	Rating *	Property tax base per pupil	Size-location index	Professional staff-pupil ratio	School tax rate	Pupils
1	2	3	4	5	6	7	8	9	10
Buffalo	$ 671	$657	$—14	—0.20	$28,145	—1	50.1	$11.84	72,204
Albany	785	792	7	0.10	43,520	—1	62.4	12.02	11,922
Rochester	876	780	—96	—1.37	39,603	—1	56.6	14.97	44,003
Syracuse	718	705	—13	—0.19	33,069	—1	53.4	12.58	30,058
Yonkers	743	839	96	1.37	43,781	1	54.1	13.40	29,797
New York City	912	926	14	0.20	47,390	1	63.8	15.42	1,024,762
Huntington 1	937	856	—81	—1.16	20,775	1	56.5	23.55	3,891
Huntington	1,051	952	—99	—1.41	29,483	1	60.2	26.72	8,595
Groton 1	737	706	—31	—0.44	10,819	—1	59.7	19.37	1,356
Marlboro 1	995	846	—149	—2.13	47,260	—1	59.3	16.39	1,772
Bolton 1	877	875	—2	—0.03	42,566	0	62.7	16.50	415
Granville 1	682	584	—98	—1.40	10,049	—1	53.3	11.70	1,971
Mt. Vernon	1,001	898	—103	—1.47	32,718	1	60.7	20.44	11,848
Ossining	997	931	—66	—0.94	34,837	1	59.9	22.76	5,307
Pelham	1,058	949	—109	—1.56	44,980	1	61.3	19.45	3,163
White Plains	1,167	987	—180	—2.57	57,775	1	63.2	16.60	8,895

* Rating is based on the number of standard errors that the actual operating expenditures per pupil deviate from the estimated expenditures. The scale is:

Very Low	Low	Normal	Normal	High	Very High
—3	—2	—1	0	1	2 3

TABLE 5.—SIMPLE INDEX OF DETERMINATION BETWEEN PAIRS OF SELECTED VARIABLES NEW YORK STATE, 1967-68

Variables	Y	X_1	X_2	X_3	X_4	X_5	Mean	Standard deviation
1	2	3	4	5	6	7	8	9
Y	...	0.465	0.423	0.415	0.399	0.059	802	139
X_1	0.465	..	0.098	0.124	0.016	0.071	23,412	13,321
X_2	0.423	0.098	...	0.153	0.299	0.013	0	1
X_3	0.415	0.124	0.153	...	0.268	0.049	56	7
X_4	0.399	0.016	0.299	0.268	...	0.0002	16.42	4.28
X_5	0.059	0.071	0.013	0.049	0.0002	...	...	...

same. In particular the property tax base, size-location index, professional staff-pupil ratio, and local tax rate are all positive in their impact on operating expenditures.

Summary and Conclusions

The Expenditure Model

In this study we postulated the existence of a linear expenditure model which could describe the variations in per-pupil expenditures in any given year. The model used four basic factors—property tax base, local school tax rate, size-location index, and professional staff-pupil ratio—as variables which in combination could describe expenditure patterns. A fifth variable was introduced merely for technical statistical reasons.

The model was estimated from a sample of 50 districts based on data for 1967-68. It was concluded that the model as a whole as well as each of the independent variables was statistically significant in explaining variations in expenditures.

As a test of the stability of the model over time an additional estimate was made for each of the years 1963-64, 1964-65, 1965-66, and 1966-67. In general over the five years the parameters appear to be relatively stable.

Table 5 gives some additional data from the study.

Bond Issue Election Defeats: Selected Western States, 1966-67

W. Montfort Barr and *A. T. Lindley*

THE NUMBER of school bond and tax elections going down to defeat throughout the nation is increasing. The U.S. Office of Education reported a national total of 543 defeats in 1,625 school bond elections during the 1966-67 school year.[1] The 543 defeats comprised proposals totaling $944 million of the $3,063 million submitted to the voters. *Time* raised a question regarding the plethora of school bond and tax rate defeats. Is there a school tax revolt in the United States?

Flanigan,[2] in a rebuttal, pointed out that an increased number of bond issues, larger dollar amounts, and increased school tax rates were the rule in many districts throughout the nation.

Admittedly, the voters often say, "No." A growing body of research has examined the reasons advanced for the "No" votes. This report is primarily concerned with the perceptions of voters and of school officials as to the reasons for the "No" votes. Bond issue election defeats were selected as the focus for the study because of the availability of data, the familiarity of the investigators with school facilities financing, and the realization that many of the problems resulting from social change may be examined within the framework of school bond elections.

Table 1 illustrates the growing trend toward an increase of school bond issue defeats in California. The referendum of November 5, 1968, resulted in defeat of the state bond issue for college and university facilities as well as defeats of local school bond issues.

A series of studies concerned with the instigation of social change have recently been conducted at Iowa State University for the Department of Defense, the Department of Agriculture, and the Office of Education. The study for the last mentioned agency concerned the perception of school superintendents as to the major rea-

[1] Barr, Richard, and Flynn, Edith. *Bond Sales for Public School Purpose, July 1, 1966—June 30, 1967.* U. S. Department of Health, Education, and Welfare, National Center for Educational Statistics. Washington, D.C.: Government Printing Office, January 1968. 8 p.

[2] Flanigan, Jean M. "Is There a Taxpayers' Revolt?" *Phi Delta Kappan* 49: 88-91; October 1967.

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TABLE 1.—SCHOOL BOND ISSUE DEFEATS IN CALIFORNIA IN RECENT YEARS

School year	Number submitted	Defeated		Amount submitted (millions)	Defeated	
		Number	Percent		Amount (millions)	Percent
1	2	3	4	5	6	7
1961-62	171	56	32.7%	$ 548	$215	39.2%
1962-63	245	85	34.7	498	134	26.8
1963-64	252	96	28.1	515	143	27.8
1964-65	235	82	34.9	673	105	15.7
1965-66	202	101	50.0	569	260	45.7
1966-67	167	95	56.9	455	141	31.0
Total	1,272	515	40.5%	$3,258	$998	30.6%

Source: Data for 1965-66 and 1966-67 from the California State Department of Education, Division of Public School Administration, November 16, 1967. Data for prior years from Bond Sales for Public School Purposes, an annual publication of the National Center for Educational Statistics, Office of Education.

sons for passage or defeat of school bond issues. Beal concluded that future investigators might well analyze the perceptions of voters as well as those of superintendents.

It was in accordance with this suggestion that a regional pilot study was designed to investigate the possibility that school officials and voters might well differ in their perceptions of the reasons for a local bond issue defeat.

Beal's simplified social action model [3] was selected as a theoretical framework for analysis of the social action in the school district which resulted in *defeat* of a bond issue election. In accordance with this model, five stages are or should be encountered in each bond issue election.

1. Characteristics of the community
2. The long-range school facilities plus the financial plan and its economic implications
3. Involvement of the community in planning, in the timing of the campaign, and in communications regarding the election
4. Analysis of voter turnout and election returns
5. Evaluation of the many variables which contributed to the election results.

The major purpose of this study was not to ascertain merely why a bond issue was defeated in the election. Far more important, in the opinion of the authors, was analysis of the perception of school and community leaders as to the reasons for the defeat. Consequently an evaluative guide was prepared for each of the districts which was being studied. Objective measures of many variables in each step of the social action model were determined. Interviews were then conducted with school and community leaders, and their perceptions as to the reasons for a bond issue defeat were compared with the validating criteria.

From a careful review of the literature concerning bond elections a checklist of 50 key items was developed and utilized as a guide in the interviews.

[3] Beal, George M., and others. *Iowa School Bond Issues, Data Book.* A cooperative research project with the Office of Education, Ames, Iowa: Iowa State University, Department of Sociology and Anthropology, 1966.

Districts school superintendents, as a group, were very cooperative in setting a definite time for the interview team to come to a local school system and in identifying local community leaders who were familiar with the local school system and the local school bond campaign. Approximately 80 percent of the local school districts in the five-state area which had suffered bond election defeats chose to participate in the study. Junior college districts were not included.

The study involved only a few large urban school systems but many urban-rural and small rural school systems. Characteristics of the districts may be seen in Table 2.

Procedures

The two investigators conducted interviews with the school superintendent, staff members and school-board members in each school district which participated in the study. An equal number of informed voters in the same districts were interviewed. The latter were selected after consultation with community leaders. Interviews were private, nonstructured, and openended.

A checklist of factors considered germane to the election defeat was gradually developed. Results of the interviews were transferred to the openended checklist as soon as possible after the interviews. Each suggested factor was rated highly significant, of some significance, or of little or no significance to the outcome of the bond election.

A validating checklist was also prepared for each school district. This checklist reflected the considered judgment of the investigators based on their examination of local municipal and school data, campaign

TABLE 2.—ENROLLMENT GROUP, ORGANIZATION, AND NATURE OF ECONOMIC BASE, BY NUMBER OF SCHOOL DISTRICTS IN THE WEST COAST STUDY OF SCHOOL BOND ELECTIONS DEFEATS

Item	Number of school districts						
	California	Idaho	Nevada	Oregon	Washington	Total	Percent
1	2	3	4	5	6	7	8
ENROLLMENT							
Less than 1,000	12	1	..	4	..	17	25.0%
1,000-4,999	22	3	1	2	..	28	41.2
5,000-9,999	10	..	..	1	..	11	16.2
10,000-14,999	7	..	..	..	..	7	10.3
15,000-19,999	2	..	..	..	..	2	2.9
20,000-24,999	2	..	..	..	..	2	2.9
25,000 and over	..	..	..	..	1	1	1.5
Total	55	4	1	7	1	68	100.0%
DISTRICT ORGANIZATION							
Elementary	13	..	..	1	..	14	20.6%
Elementary union	9	..	..	..	..	9	13.2
High school	1	..	..	..	..	1	1.5
High school union	17	2	..	1	..	20	29.4
Unified	15	2	1	5	1	24	35.3
Total	55	4	1	7	1	68	100.0%

liter ure, reports of hearings and meetings, editorial opinions, election returns, and press releases. Many of the districts had a wealth of material, both pro and con. Usable returns were obtained from 68 participating districts.

Analyses were made of the perceptions of school officials and patrons regarding the most significant items. Correlations, chi-square analyses of significance, and the agreement or the divergence of each group of respondents were computed for each category of responses, situational. the bond issue, and the bond campaign. This procedure was also followed for each item within the categories when the number of responses permitted. The small number of interviews in each district precluded any opportunity of significant analysis of data for individual districts.

Data for 55 school districts in California were analyzed separately. Data for a total of 13 districts in Idaho, Nevada, Oregon, and Washington were analyzed as a group.

Table 3 shows the rank attributed to 15 major factors in the opinion of California voters, and the rank given these factors by administrators and school-board members. A weighted mean response of 2.0 or higher was regarded as an indication that the item was regarded as a major factor which contributed to the bond election defeat. A weighted mean of 1.50 to 1.99 was regarded as indicating that the factor contributed to some extent to the defeat but was not of major consequence. A weighted mean of less than 1.50 was regarded as of little or no importance to the defeat.

After each interview the perceptions of those interviewed were classified by the investigators as of major importance to the defeat, a weight of 3; some importance to the defeat a weight of 2; little or no importance

TABLE 3.—FACTORS MENTIONED MOST FREQUENTLY AND HAVING THE HIGHEST WEIGHTED MEAN, CALIFORNIA ONLY

Rank			Weighted mean	
Voters	Officials	Selected variables	Voters	Officials
1	2	3	4	5
1	1	Percentage of vote required for passage	2.7215	2.9250
2	2	Level of the local school tax rate	2.6329	2.4375
3	4	Level of the local over-all tax rate	2.5949	2.3750
4	3	Unification election scars	2.5571	2.4533
5	6	Inflationary trends in school costs	2.4324	2.2308
6	5	Conflict between elementary and secondary district bond or tax elections	2.3529	2.3729
7	12	Nature of the proposed construction program	2.3077	1.9250
8	9	Economic level of the community	2.2208	2.0380
9	29	Dissatisfaction with the administrative staff	2.2152	1.6296
10	25	Criticism of schools	2.2152	1.7160
11	11	Inclusion of the bond issue in an omnibus proposition	2.2075	1.9815
12	8	Geographic area included in the district	2.1688	2.0506
13	13	National political, social, or economic problems	2.1190	1.9130
14	7	State political, social, or economic problems	2.1169	2.1600
15	10	Percentage of citizens age 65 or older	2.1139	1.9877
16	14	State required election procedures	2.1039	1.9103
25	15	Lack of interest in local public schools	1.9114	1.9048

TABLE 4.—ECONOMIC BASE, AREA, LEVEL OF TAX BASE, AND LEVEL OF SCHOOL TAX RATE, BY NUMBER OF SCHOOL DISTRICTS IN THE WEST COAST STUDY OF SCHOOL BOND ELECTION DEFEATS

Item	California	Idaho	Nevada	Oregon	Washington	Total	Percent
1	2	3	4	5	6	7	8
ECONOMIC BASE							
Rural	30	3	..	6	..	39	57.4%
Urban	20	..	1	1	1	23	33.8
Industrial	..	..	..	..	..	..	..
Resort	5	..	..	..	..	5	7.4
Mining	..	1	..	..	..	1	1.4
Total	55	4	1	7	1	68	100.0%
AREA							
Compact	14	1	..	2	..	17	25.0%
Diverse	30	1	..	4	1	36	52.9
100-400 square miles	6	2	..	1	..	9	13.3
Over 400 square miles	5	..	1	..	..	6	8.8
Total	55	4	1	7	1	68	100.0%
LEVEL OF TAX BASE							
Below average	17	..	..	1	1	19	27.9%
Average	32	4	..	6	..	42	61.8
Above average	6	..	1	..	..	7	10.3
Total	55	4	1	7	1	68	100.0%
LEVEL OF SCHOOL TAX RATE							
Below average	11	..	1	2	..	14	20.6%
Average	37	4	..	5	1	47	69.1
Above average	7	..	..	..	..	7	10.3
Total	55	4	1	7	1	68	100.0%

to the defeat, a weight of 1. Results of this analysis for factors not in Table 3 for California districts appear in the list at the end of this paper.

Situational Factors

The perceptions of respondent groups, school officials and patrons, as to major reasons for bond issue defeats, were generally in close agreement regarding certain situational variables.

In some mixed communities with an area where Mexicans, Spanish-Americans, Negroes, and whites are thrown together, the support of schools is largely determined by how they relate to each other—how they manage their problems, especially in such areas as health, welfare, recreation, housing, and politics. In communities where one of the ethnic groups largely controls the manner in which the community needs are met, the schools do not have the support they need. Some ethnic groups tend to blame what they call the system for not meeting their needs. Schools have much better support in communities where the various ethnic groups have learned to work together. Specific areas of human need are identified, and there is a united approach by community leaders in seeking a solution to specific problems.

Voting Requirements and Taxation

The percentage of votes required for passage (66⅔ percent in California and Idaho) was regarded as a major

reason for defeat of bond issues in these states. General resistance to higher property taxes was a significant item, almost invariably mentioned. A state can double the income tax rate, the nation can increase the social security rate and add a substantial income surtax, many municipalities and authorities can tax and bond with little regard for the opinion of the individual voter. A school bond or tax election is one opportunity for the voter to register a protest against high taxes.

State Fiscal Policy

California has an effective state loan plan for local school construction. With the exception of Washington, state support for school construction was not available to local districts in the states included in the study. This legislature policy places the burden of construction costs on the local taxpayer and on the property tax base. Studies in states having adequate state support, from nonproperty tax sources, of capital outlay and debt service indicate that voter resistance to bond issues is not as pronounced as in states having little or no state support for this purpose.[4]

Unification and Mobility

Unification elections, whether successful or unsuccessful, have left scars in many West Coast school districts. These scars often may be the reason for "No" votes in bond referendums. Changes in attendance areas, location of proposed building sites, and changes in the vertical organization within the new district were frequently mentioned by patrons and school officials as major reasons for opposition to a school bond issue.

The rapid change taking place in the general population, with migration both into the district and out of the district, leads many citizens to believe that future changes in the population will not justify the building of additional facilities. In some communities where there has been a rapid in-migration that has necessitated school construction, there is a deep feeling of resentment concerning the tax burden that local community must bear. Rapid increase in population through in-migration compounds the local community problem when there are ethnic differences.

Reference was frequently made to "our" school, the nearby elementary school, or to "their" school, the high school attended after unification. Feelings seemed to be as intense in districts where unification had been defeated as in those where it had been legally enacted, but often only grudgingly accepted. Conflict between elementary and secondary districts in areas where unification had not occurred (44 of the 69) was a major factor in bond issue defeats in these districts in the opinion of both school officials and patrons.

Inflation and the Economy

Inflation in operating as well as construction costs was regarded as a major factor in bond issue defeats in many districts. References to marble palaces were not as frequent as to lush administrative offices, carpeting, space for fads and frills, and luxurious junior high and middle schools. General agreement by both groups on the importance not only of inflation but

[4] Barr, W. Montford, and Wilkerson, William R. "State Participation in Financing Local Public-School Facilities." *Trends in Financing Public Education.* Proceedings of Eighth National Conference on School Finance Sponsored by the Committee on Educational Finance. Washington, D.C.: National Education Association, 1965. p. 224-32.

also of changing standards of school construction was evidenced.

The economic level of the community was advanced both by voters and by officials as a major factor in bond referendum defeats, apparently with some justification, since only seven of the 68 districts had a tax base per pupil which was above the county average.

Citizens 65 and Older and Military Personnel

One result of migration is a concentration of citizens 65 and older in the West Coast states, many of them retired and on a fixed income. Voters and school officials alike recognized the probability that their bond defeats were attributable to some extent and in certain areas to a major extent by negative votes of some of the elderly citizens, whom they believed were voting against tax increases rather than against bond issues.

Residents of military bases also were regarded as a problem in a few areas where it was believed that there was a reluctance to register as well as to vote.

National and State Conditions

The effect of national problems, such the Viet Nam conflict, the cold war, increasing federal budgets, civil disturbances, and youthful unrest, were mentioned by only about one-half of the respondents but were regarded as of major importance to school bond defeats by those who did mention them.

State political, social, or economic problems were mentioned by almost all who were interviewed and were regarded as ranging from some to major importance as factors which often led to a negative vote. A voter weighed down with national and state concerns may register a negative vote as a result of general frustration.

Geographic Areas

Closely allied to the aftermath of union and unification elections was the troublesome aspect of geographical area. School officials and patrons alike recognized the difficulty of maintaining unity in a district which embraced, for example, a famous seaside resort, a new industrial area, and a sprawling military installation. School districts several hundred square miles in area, such as in some desert areas of California and county school districts in Nevada, often had several distinct and diverse community centers within the district.

Differences in Perceptions

Many of the situational variables which lead to bond issue defeats have been perceived alike by school officials and by the electorate. A number of others, some relating to the educational climate in the district, were varyingly perceived.

Community Relations

For some factors the voters saw substantial effect on bond issue defeats, but school officials regarded the same factors as having had little effect. Among these factors were general criticism of the schools, dissatisfaction with the administrative staff, and disappointment with the school board. A credibility gap seemed to exist in many school districts, not only in relation to the specific bond election, but also antedating the election and involving many school procedures.

Voters also tended more strongly than school officials to attach importance to impatience with teachers as a factor in bond defeats. Teaching methods, lack of teaching dedication,

growing teacher militancy, commuting teachers, and salaries were frequently mentioned by citizens as being somewhat responsible for negative votes. Voters and school officials alike believed that a lack of pride in local schools and comparisons with neighboring schools had some but not major importance in election defeats.

Concern was expressed by a number of California voters regarding student conduct, student militancy, and student demonstrations in some high schools, colleges, and universities. The feeling was often expressed that the schools condoned "permissiveness" and that a backlash of resentment accounted for some negative vote on school fiscal matters.

School officials, board members, and superintendents reported lack of interest in public school as a factor in defeats. Voters ranked lack of interest as having only a minor effect.

Mobility

The West Coast is a modern melting pot of people from many states and many parts of the world. The social problems resulting from a mobile population, the presence of many ethnic and racial groups, and different social and economic backgrounds of citizens were mentioned by both voters and school officials. Administrations tended to attach more importance to this group of factors as a reason for negative votes than did the voters.

Voters stressed, for example, the unwillingness of the Spanish-Americans to register and vote, since this might lead to jury duty which they could ill afford. However, even in the fertile California and Oregon Valleys, having large numbers of migrant stoop laborers, ethnic and racial influence was not considered a major element contributing to bond election defeats.

Voters stressed the idea that school support has increased substantially. When building programs that require greatly increased financial effort by the community are proposed, some generally opposed the construction, irrespective of need. Voters recognized that inflation affected the things they brought, but they were quite concerned over why the cost of school facilities was so great. When evidence was given that the financial costs of the proposed construction would not raise tax rates drastically, community leaders were more willing to evaluate the need for the proposed building program.

Voters also seemed to be concerned over the great differences that existed among different communities in terms of the financial effort in support of public schools. The socioeconomic condition of various communities affected their ability to support schools and indirectly determined the tax rate. When one community needed to vote for both a tax over-ride and a bond issue, while a near-by community did not need to vote for a tax over-ride, community leaders seemed to be concerned. In communities where the income per capita or per family was high, increased school expenditures were looked upon more favorably.

What was the real problem regarding the bond issue? The respondents overwhelmingly perceived dissatisfaction with the construction program for which the proposed bond issue was to provide the real culprit. Voters attached even more weight to this factor than did school officials, although both groups of respondents regarded dissatisfaction with the construction program as a major factor in many of the West Coast defeats.

The nature of this dissatisfaction was often discussed at length, and it provides much of the substance of the concluding section of this paper which deals with the specifics of the bond issue campaign.

The Bond Issue

Research has shown that the planning of the bond issue has important consequences for its eventual passage or defeat by the electorate. Evidently school officials on the West Coast were familiar with the technical aspects of planning bond issues and had avoided many of the pitfalls which lead to almost certain defeat. Findings of research studies by the major universities and research agencies were frequently mentioned, both by officials and by voters.

No attempt was made to identify and/or evaluate the power structures in the various communities studied. However, certain factors, such as (a) tenure of board members, (b) tenure of the superintendent, (c) viable teacher organizations, (d) fiscal independence, and (e) general operational information, constantly came up in interviewing citizens.

In school districts where bond issues received approval of over 50 percent of the voters but not the necessary two-thirds vote, there seemed to be a feeling that (a) the administration was providing good leadership, (b) individual members of the board of education were held in respect, (c) the citizens understood the needs of the schools, (d) there was satisfaction with the teaching staff and the educational program, and (e) many community leaders wished to help improve the educational program. In communities where the bond election vote was well below 50 percent favorable, citizens frequently expressed dissatisfaction in one or more of the areas listed above.

Some pitfalls were avoided because state school codes, rules, and regulations do not permit certain practices in the states where the interviews were conducted. Retirement of temporary indebtedness from the proceeds of a proposed issue, inclusion in the issue of funds to complete prior construction, and blanket approval for future undetermined construction were frequently mentioned by officials and informed citizens alike as dubious practices which were not involved in the local referendum defeats. Apparently, misinformation was sometimes spread, implying that perhaps such practices were being employed, but this misinformation was perceived by proponents of the issue as attempts to draw red herrings across the trail by individuals who actually had other major objections to the issue.

Special elections were the rule. Apparently, everyone concerned was aware of the dangers pointed out by Murphy[5] and others. A larger turnout may be expected in general elections, and large turnouts often invite negative votes for specific school proposals.

Respondents in some districts that had experienced elections which included omnibus school proposals, bonds, tax-over-rides, unification, school-board elections, and municipal capital projects were almost unanimous in their feeling that this can lead to certain defeat in a bond election. Incidentally, informed citizens pointed out that the formidable legal language required on the ballot in

[5] Murphy, Edward V. *Selected Variables in the Success of Bond Elections in California School Districts.* Doctoral Dissertation. Los Angeles: University of Southern California, 1966. 287 p.

some states often confused the voters and probably was responsible for some negative votes.

Time intervals between bond referendums were not regarded as important by either group of respondents, possibly because, as the evidence showed, reasonable time seemed to have been allowed if a second referendum was needed.

The amount of the proposed bond issue, as a factor in defeat, was ranked as of some importance both by school officials and by voters. The amount of the rejected issue was almost invariably mentioned, but was regarded as an excuse and not as a major determinant of defeat. Just as any property tax is often deemed too high, so a bond issue of almost any amount may be criticized as too large.

The Election Campaign

Detailed presentation of the educational needs of the community preceding a bond election was the exception rather than the rule. When elaborate, detailed plans were developed, the plans included the needs as seen by (a) industry, (b) professionals and nonprofessionals, (c) retailers, (d) commerce, and (e) sometimes agriculture. These detailed plans usually included a published list of the companies and businesses that had participated in the survey, including such organizations as the Chamber of Commerce, service organizations, and other community organizations as well as school-related groups.

It was interesting to note how many citizen groups developed definite educational goals, presented the tax impact, and showed the economic value of the proposed educational needs in a package that was understandable to the average citizen in the communities when local leadership was really concerned about the educational needs of the community.

School districts where bond election campaigns had been organized and conducted in a sophisticated manner, following every known rule of effective political action, identifying voters in favor of the proposition, and supported by brochures, block meetings, and involvement of local civic groups were visited. The only disturbing aspect was that the referendum failed.

In some of these instances the many situational factors beyond control of school officials and voters favoring the proposition may have been directly responsible for the failure. In other instances the campaign itself may have been weak and ineffective.

Many voters were concerned about the tendency toward unilateral action by the board and the superintendent. As one astute civic leader remarked, the location of sites had been made, the construction program had been determined, and the public had been informed through news releases, public meetings, and the usual parent channels. State requirements had been met, specifications had been drawn up, and the financing plans had been completed. All of these steps, often over a period of two or more years, having been taken, the board finally appointed a local citizens group to wage the final phase of the campaign.

Brochures were printed, captains and leaders formed speakers bureaus, factual information was released by the school central-office staff, sketches of the proposed facilities were made available, the election was held, and to the surprise of those immediately involved, the proposition failed, perhaps for the first time in a specific school district since the depression.

Our analyst believed that the community has been involved only on the surface and only during the final pre-election weeks. All decisions had been made, perhaps not in "smoke-filled" corridors, but only semi-publicly. The public had not really been involved in key decisions regarding the razing of buildings not earthquake-resistant, the relocation of buildings, and the many implications of changing design to implement curricular changes.

Letters to the editor had often been conveniently forgotten; occasional protests over the months had been regarded as of little consequence; the bitterness of some of the teachers over the proposals had really never come to the surface; the considered objections from certain neighborhood groups, tax protest groups, and municipal officials had been discounted by the militant sponsors of the official policy.

Many who wanted to take part in the action were overlooked, ignored, or bypassed. Finally, the day came when these many dissident groups were actually involved. They were permitted to vote Yes or No. In some communities the dissident citizens had finally organized, sparked a sudden countercampaign, and interjected many items which proponents believed were not pertinent. Even when the opposition campaign had not surfaced but was merely a growing ground swell, trouble was in the offing. A bond issue must pass by a two to one majority in California and Idaho. If 20 percent of the registered voters cast a vote and 7 percent were opposed, the issue failed.

What were the major factors in the conduct of the campaign which invited defeat? According to the interviews, most significant in a number of the districts was dissatisfaction with the site or sites, failure to understand the long-range construction plans, misunderstanding of the tax impact of the debt service attendant on the proposed bond issue, failure to use sketches of proposed construction, and failure to get out the favorable votes. These factors were perceived by both the official and the voter groups in about equal numbers, but were regarded by the voters as having a degree of importance.

Communication can exist without true understanding. Understanding can often exist without actual acceptance of the proposed course of action.

It became more and more evident as the interviews progressed that a recurrent theme was prevalent. Informed community leaders perceived that decision making had often taken place with little or only token involvement of the citizen and patron. Decisions had been announced after discussions in which the citizen had not been involved. Channels of communication too often were one-way streets. Decisions of the board and the administration presumably flowed through the press, through school meetings, and through civic meetings. Often questions indicating lack of understanding, considered objections to a course of action, or consideration of alternatives to a course of action either did not flow back to the board or, in the opinion of many respondents, did not receive appropriate consideration.

Official spokesmen also registered the same perceptions but in a different way. We have carefully kept the public informed of the need for replacing buildings, the necessity of moving to a larger site, and the construction needed in the district in accordance with our long-range facilities plan. We have held open meetings to which the public was wel-

come. Yet, the attack in pre-election weeks indicated that the voter was not listening or failed to understand. Actually, we have leaned over backward to involve the public in all policy decisions in our systems.

Often a period of dissatisfaction in a community had led to a change in the board and the administration. An entire long-range school facilities plan had been modified and the voters were suddenly faced with a new one. Voters in such communities were often thoroughly confused. Was it credible that the former program was actually wrong and that the new program was the best solution?

Another group of factors was considered as of some but not major importance. Obviously no two districts had identical problems, but strong similarities seemed to exist.

Many boards and administrative staffs had turned the campaign over to a citizens committee and kept hands off, but believed that the committee had not adequately got out the vote. Several impartial observers believed that they had gotten out the vote, but not necessarily the right vote. The vote that is needed if an election is to carry is the affirmative vote. Only an occasional district had made a real attempt at voter identification as a means of obtaining the desired votes.[6]

A number of other factors in the conduct of the bond election were mentioned. Although some were of major importance in some districts, they were not of concern in others.

[6] Carter, Richard F. *Voters and Their Schools.* U.S. Office of Education, Cooperative Research Project No. 308. Palo Alto, Calif.: Stanford University, 1960. 311 p.

TABLE 5.—SIGNIFICANCE OF DIFFERENCES IN PERCEPTION OF CALIFORNIA VOTERS AND SCHOOL OFFICIALS REGARDING THE EFFECT OF SELECTED FACTORS ON BOND ISSUE DEFEATS

Rank	Item	Significant at 5%	Not significant at 5%
7	The nature of the proposed construction program	9.8890	
9	Dissatisfaction with the administrative staff	20.8200	
10	Criticism of schools	13.0000	
11	Inclusion of the bond issue in an omnibus proposition		3.6346
13	National political, social, or economic problems		2.1932
15	The percentage of citizens age 65 or older		5.0032
16	Criticism of location site		5.3440
17	Dissatisfaction with the school board	23.5690	
18	Inadequate understanding by the voters of school construction plans	8.0273	
19	Organized opposition to bond issue		3.2520
20	The amount of local school indebtedness		2.8933
21	State school construction requirements		3.8915
22	Organized local opposition to construction plans		1.9340
23	Inadequate understanding by the voters of capital financing plans	6.0930	
37	Failure to involve local civic groups		3.7120
38	Failure to involve a citizens bond issue advisory committee		2.2320
39	Divided support by the board of construction plans	9.3641	
40	Inadequate utilization of parents' meetings		1.6111
41	The trend in bond interest rates	8.9510	
42	Inadequate utilization of radio and television		3.9576
43	Divided support of the bond issue by the board		2.2070
45	Poorly utilized telephone campaign		.2900

Significance of Difference in Perceptions

As discussed above and as shown in the listing at the end of this paper, the voter group and the school official group in California differed in their perception of the effect of specific factors on the bond election defeat. Although these differences existed, they may or may not have been of significance.

Table 5 lists the items on which the two groups differed in their responses. Statistical significance, as indicated by application of the chi-square test, is shown for several items. Among factors regarded by the voters as having major effect on the defeat were dissatisfaction with the board and the administrative staff, inadequate understanding of construction and financing plans, and dissatisfaction with construction plans. Board members and school officials regarded these items as having only a moderate effect.

Two others approached significance. These were the percentage of citizens 65 and older and criticism of the site location. Voters regarded each of these as having major effect on the defeat of the bond issue; school officials and board members regarded these factors as having only moderate effect on the defeat of the issue.

Opinionnaire

Since the voters repeatedly stressed the existence of general and specific dissatisfaction with the local school system, an opinionnaire [7] which was designed to determine feelings of the voters regarding the teaching staff, administration, the Board of School Trustees, and the quality of instruction was utilized.

1. My age to the nearest birthday is:
   - 21 to 35..... 18.0%
   - 36 to 50..... 52.7
   - 51 and over..... 29.1

2. An adult member of our family attends school functions:
   - Never 8.3%
   - Occasionally 47.2
   - Frequently 44.4

3. I/we vote at school-board elections:
   - Never 4.1%
   - Occasionally 36.1
   - Frequently 59.7

4. I/we feel in comparing the teaching staff in our schools with those of other schools, they would compare:
   - Poorly 20.8%
   - Average 58.3
   - Excellent 20.8

5. I viewed my teachers in school as:
   - Poor ....
   - Average 56.9%
   - Excellent 43.1

6. In comparing the administration of our school with the administration of other schools, it would compare:
   - Poorly 20.8%
   - Average 55.6
   - Excellent 23.6

7. I/we feel that the school district is:
   - Too small 11.1%
   - About right 52.8
   - Too large 36.1

8. I/we feel that the ethnic interest of different groups affects our schools:
   - Little effect 47.2%
   - Some effect 30.5
   - Major effect 22.3

9. I/we feel that minority groups have:
   - Little effect 51.4%
   - Some effect 33.3
   - Major effect 15.3

10. In the past, when I/we have had occasion to visit the school, I/we have been received in a welcome, gracious manner:
    - Does not apply..... 18.0%
    - Never 1.4
    - Occasionally 47.2
    - Frequently 33.4

[7] Adapted from: Stimeling, George. *Demographic and Aspiration Analysis Through the Use of the Community Action Process.* Doctoral Dissertation. Bloomington: Indiana University, 1966.

11. I/we have a tendency to vote in elections where we know the candidate personally:
    - Never 4.2%
    - Occasionally 44.5
    - Frequently 51.3
12. Over the years, I/we feel the efforts of the personnel to keep me/us informed of change within the school have been:
    - Poor 44.5%
    - Average 36.1
    - Excellent 19.4
13. I/we feel the quality of instructional personnel is:
    - Poor 20.8%
    - Average 62.5
    - Excellent 16.7
14. Of the teachers I/we know personally, I/we view them as:
    - Does not apply..... 1.4%
    - Poor 23.6
    - Average 58.3
    - Excellent 16.7
15. I view the quality of decisions made by the board of education as:
    - Poor 36.1%
    - Average 47.2
    - Excellent 16.7
16. I feel the quality of the administration is:
    - Poor 27.8%
    - Average 48.6
    - Excellent 23.6

SCHOOL BOND ELECTION DEFEAT INQUIRY

Selected variables *	Effect on bond issue defeat		
	Little or no effect	Some effect	Major effect
Variables 1-15, 25, and 28 are listed in Table 3.			
16. Criticism of location of site		A	V
17. Dissatisfaction with the school board	A		V
18. Inadequate understanding by the voters of school construction plans		A	V
19. Organized opposition to bond issue		A	V
20. The amount of local school indebtedness		A	V
21. State school construction requirements		A	V
22. Organized local opposition to construction plans		A	V
23. Inadequate understanding by the voters of capital financing plans		A	V
24. The amount of the recently defeated bond issue proposal		V-A	
26. Inadequate use of sketches of proposed construction		V-A	
27. Dissatisfaction with teachers' performance		V-A	
29. Poorly organized "get out the vote" campaign		V-A	
30. Failure to consider objections by local groups		V-A	
31. Lack of pride in schools		V-A	
32. Failure to utilize long-range planning for school construction		V-A	
33. Inadequate explanation of the fiscal implications of the proposed issue		V-A	
34. Comparison with neighboring schools		V-A	

35.	Ethnic or racial bias		V-A
36.	Failure to involve a citizen's construction advisory committee		V-A
37.	Failure to involve local civic groups	A	V
38.	Failure to involve a citizens' bond issue advisory committee	A	V
39.	Divided support by the board of construction plans	A	V
40.	Inadequate utilization of parents' meetings	A	V
41.	The trend in bond interest rates	A	V
42.	Inadequate utilization of radio and television	A	V
43.	Divided support by the board of the bond issue issue	A	V
44.	The time interval between this and your last previous school bond issue	V-A	
45.	Poorly utilized telephone campaign	V	A
46.	Inadequate utilization of the press	V-A	
47.	Inadequate utilization of school publications	V-A	
48.	The amount of local governmental debt	V-A	
49.	Inadequate central office study of facility needs	V-A	
50.	State provisions for utilization of local current funds for school construction	V-A	
51.	Percent of state support received by your district	V-A	
52.	Conflict between school and civil bond issues	V-A	
53.	Provision for immediate construction	V-A	
54.	State imposed school debt limit	V-A	
55.	State assistance in planning the school construction program	V-A	
56.	Voting at a special election	V-A	
57.	The bond rating of your district	V-A	
58.	The accreditation of your schools	V-A	

* Listed in the weighted order of importance, according to interviews with voters. *V* refers to voters, *A* to board members and administrators.

Other factors occasionally mentioned were:

State school construction loans or grants

Inclusion of tax override and bond issue at the same election

Proposed retirement of temporary indebtedness from bond proceeds

Inclusion in the issue of funds for prior construction which had exceeded estimated costs

Failure to utilize a consultant in planning the construction program

Failure to use a public relations firm

Failure to use a public opinion poll prior to organization of the bond election campaign.

Understanding Local Budgets

Thomas J. Northey

ONE OF THE major purposes of the Committee on Educational Finance of the National Education Association is the increasing of understanding of school finance. School budgets, documents of public record, provide a report to the public on funds raised and funds spent as well as an indication of the sources of funds and the items for which the budgets were spent. Citizens and teachers have an interest in understanding school budgets.

The following presentation briefs the content of school budget schools conducted in three sessions by the Michigan Education Association. The outline may assist both state and local education association which attempt similar budget schools, and may also assist individual teachers and citizens seeking to improve their understanding of school budgets.

The task of increasing understanding of school budgets is a constant effort of local citizens, teachers, and local, state, and national associations. Comparisons of revenue and spending with a district's past history provides the basis to make meaningful comparisons with state and national data.

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Preparing for a discussion of school finances requires an awareness of three basic documents:

1. The *budget*—a plan adopted by the board of education as a guide to sources of income and expenditures. In reality, the budget is an estimate of income and expenditures.

2. The *auditor's report*—a verification that proper accounting procedures have been used in the handling of funds. The report is usually accompanied by recommendations to improve procedures.

3. The *annual financial report*—a form which is deposited with the state department of education. This form may list signatures of the proper local officials indicating they have reviewed and accepted the contents listed on the form.

As the first step, every effort should be made to secure all three documents. However, the most important document is the annual financial report. Only with this official report can a school district's financial condition be properly reviewed and evaluated.

It is assumed that each state has some kind of official reporting form which must be deposited with the state department of education. (In Michigan, the annual financial report is referred to as Form B). Copies of this form should be available at the

office of the local school superintendent, the intermediate office, and at the state department of education. There may be a charge for the cost of having copies reproduced.

Do not obtain only the most recent form. Review at least a four-year period to get a proper historical picture of the school district's financial condition. This will prepare you for the next step in the process—dialogue with the administration or board of education.

As a rule, there are three major difficulties in the ensuing dialogue with the administration or board of education: (a) agreement on sources of information, (b) agreement on availability of the data source, and (c) definitions.

By using the official form, these problem areas generally can be resolved. The form is official, it is statewide, it has a due date set by the official body of the state, and it has accompanying manuals with descriptive definitions.

For a basic text we shall be relating our discussion to *Financial Accounting for Local and State School Systems, Standard Receipt and Expenditure Accounts.*[1]

Sources of Revenue

For comparison purposes, care must be taken to keep the collected data comparable with other K-12 districts in the state. If your district has a community college which is a part of the K-12 district, the property and nonproperty taxes, tuition, or other sources of revenue used for that community college must be subtracted from the total revenues.

The state and national revenue receipt accounts are as follows:

Code numbers Michigan		*Code numbers* Federal Manual
100	Local	10
200	Intermediate	20
300	State	30
310	State	a
320	State-federal	b
400	Federal	40
500	Gifts and bequests	14f
600	Transfers—other districts	80
610	In state	80
620	Out state	90
700	Transfers—other funds	50-70
710	Debt retirement	
720	Building and site fund	
0000	Total	

The school finance discussion before a Michigan audience combines visual and oral presentations on the state-aid formula. In addition, each participant is given a copy of the current edition of *Easy Lessons in School Finance.*[2] This booklet contains actual samples of each of the four formulas used. It also contains work pages so that each reader can apply the formula to his own school district and determine the state aid for the current year.

General Fund Expenditures

While we shall continue to use the Michigan form (Form B), the Annual Financial Report, as the basis for discussion, the same principles can be applied to your state and to your school district.

[1] Reason, Paul L., and White, Alpheus L. *Financial Accounting for Local and State School Systems: Standard Receipt and Expenditure Accounts.* U.S. Department of Health, Education, and Welfare, Office of Education, Bulletin 1957, No. 4, and State Educational Records and Reports Series: Handbook II. Washington, D.C.: Government Printing Office, 1957. 235 p. $1.

[2] Hecker, Stanley E.; Meeder, John; and Northey, Thomas J. *Easy Lessons in School Finance, 1967-68.* Revised edition. East Lansing: Michigan Education Association, 1967. 31 p. 25¢

First, let us get a general picture of the various areas of expenditures for a school district:

Code numbers Form B—Annual Financial Report		*Code numbers* HEW—Federal
1000	Instruction	200
	1100 elementary	
	1200 secondary	
	1300 special education	
	1400 summer school	
	1500 adult education	
	1600 community college	
	1900 unclassified	
2100	Administration	100
2200	Attendance Services	300
2300	Health Services	400
2400	Transportation	500
2500	Operation	600
2600	Maintenance	700
2700	Fixed Charges	800
2799	Total Current Operating Expenditures (day-by day-operating expenditures)	
2800	Capital Outlay	1200
2900	Community Services	1100
3000	Student Services	900-1000
3099	Total General Fund Expenditures (excluding transfers)	
3300	Outgoing Transfers	
	In State	1410
	Out State	1420
3400	Transfers (in district)	
	Debt Retirement	1300
	Building and Site Fund	
3499	Total	

Returning to the Annual Financial Report, we shall review the eight general categories of expenditures.

Payment for salaries and wages for personnel is the major expense of school operation (83 percent). We can determine not only the percentage used for this purpose but also the per-pupil expenditure.

Under instruction, specifically elementary instruction, each category is given a code number based on its function. For example, a principal is coded as 01, consultants and supervisors as 02, teachers as 03. If we add all of these code numbers relating to elementary personnel, the total is coded 1190. Doing the same with secondary personnel, we have a total of 1290. For special education, it is 1390. If we add the total of the 90's in the instructional category (excluding 1690 for community college), we arrive at the total cost of personnel engaged in K-12 instruction.

We have now identified two instructional expenditures:

1000's—Total cost for instruction $_____

90's—Total cost for instructional salaries $_____

Let us now identify the cost for teacher's salaries. To get a broad definition of teacher's salaries, we must subtract from the total instructional salaries the dollar amounts in each of the following coded categories:

01—Principals' salaries
02—Consultants' and supervisors' salaries
28—Secretarial and clerical salaries
29—Other salaries for instruction

The remainder is the number of dollars used only for teachers' salaries.

By dividing the dollar amount in each of the three categories—total instructional expenditures, instructional salaries, and teachers' salaries—by the total dollar amount in total current operating expenditures (2799), we obtain the percentage of the budget spent in each category.

If we divide the dollar amounts of each of these three categories by the number of pupils, we have the per-pupil expenditure for each category.

To the dollar amount in instructional salaries (total of 90's) add the same code numbers in each of the

others (administration, 2190, through maintenance, 2690) and we have the total dollar amount spent in all salaries and wages. If this amount is divided by the dollar amount in total current operating expenditures (2799), we get the percentage of the budget spent for all salaries and wages.

When we add the dollar amounts for the total in instruction (1000), administration (2100), through fixed charges (2700), we come to total current operating expenditures (2799). Dividing the dollar amount in 1000, 2100, 2200, etc., by the total dollar amount (2799) gives us the percentage of the budget spent in each of these categories, and dividing by the number of pupils gives us the per-pupil expenditures by category.

In Michigan, by referring to an annual publication called *Analysis of Michigan Public School Revenues and Expenditures,* Bulletin 1011, we can compare any district, not only on a state-wide basis, but also with comparable districts.

Such comparisons, although helpful, must be tempered by a knowledge of the peculiarities of a particular district or by the program offered by the district.

The total dollars expended in 2799, total current operating expenditures, represents the day-by-day operating costs only. There are additional expenses which must be considered.

Let use add three additional expenditures:

2800—Capital Outlay
2900—Community Services
3000—Student Services

When comparing one district with another in each of these three categories, we must make sure that there are identical elements in the expenses involved.

Outgoing transfers to other districts or to other funds are additional expenditures.

The total of all expenditures, total general fund expenditures plus outgoing transfers, represents the total dollar amount expended.

This can be compared with total revenue to indicate whether, at the end of the fiscal year, there are either excess revenues or excess expenditures.

In working with our units in Michigan we place more emphasis on comparisons within a school district than with other districts. We recommend at least a four-year review in order to get a proper perspective on the financial health of the school district.

To assist the local district, the MEA Research Division provides each with the following:

1. *Michigan Public Schools, An Analysis of the Revenues and Expenditures* (Bulletin 1011, MDE)
2. *Ranking of Michigan High School Districts by Selected Financial Data* (Bulletin 1012, MDE)
3. *An Analysis of Operation Expenditures* (Bulletin 1011, summarized 1963-64 through 1967-68 by the type of district)
4. *An Analysis of Operation Expenditures by Functional Categories* (1967-68 both by percent and per-pupil state-wide and by type of district within the state)
5. Capital outlay worksheets.

Awards in School Finance Research

The Investment of Idle Funds by Large Public School Systems

Bobby D. Anderson

THE LACK OF FUNDS to provide an adequate educational program is a problem constantly faced by officials of local school systems. To meet the rising costs of public education and to receive maximum benefit from money provided by taxes, any possible source of additional revenue, without the increase of taxes, should be carefully investigated. The investment of otherwise idle balance constitutes a significant potential revenue source which is often overlooked completely and is frequently under-utilized.

Purpose of the Study

The purpose of the study was to investigate and describe the status of idle funds invested by large public school districts for the 1966-67 school year, and to present possibilities for investing idle school funds to provide additional revenue.

Method of Research

In February 1967, there were 651 school districts in the United States with an enrollment of 10,000 or more pupils. A questionnaire was mailed to each of these large school districts. Three hundred fifty-seven school districts, or 55 percent, responded and were included in the study. The districts were grouped into four classes, based on enrollment.

Data requested in the questionnaire were related to nine aspects of the school districts investment activities.

Findings

These findings were drawn from the tabulation of the responses to the questionnaire items made by the school districts in this study:

1. Thirty-seven states permitted investing in savings accounts, and 42 states permitted investing by purchasing securities.

2. Officials of 254 school districts believed that state statutes allow the degree of freedom necessary to make investments which have the greatest revenue potential.

3. A total of 188 school districts, or 53 percent, reported investing idle funds in savings accounts.

4. A total of 236 school districts, or 66 percent, reported investing idle funds by purchasing securities.

5. A total of 171 school districts reported an average annual interest rate of 4.47 percent received by in-

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vesting in savings accounts during 1966-67; the range was from 2 percent to 5.5 percent.

6. A total of 192 school districts reported an average annual interest rate of 4.58 percent received by purchasing securities during 1966-67; the range was from 2 percent to 5.8 percent.

7. The 300 school districts that reported the amount of interest earned during the 1966-67 school year had total investment earnings of $54,341,-216; the range was from $227 to $4,540,000.

8. The total amount of interest earned represented 0.93 percent of the total annual budget.

9. The responsibility for the investment process had been delegated to an appointed officer by 275 school districts. This officer had authority to make investments within prescribed guidelines established by state statute and/or the local board of education.

10. General operating funds were invested by 261 districts, bond funds by 216 districts, and capital outlay funds by 174 districts.

11. Of the 357 respondents, 257 believed the state department of education furnished insufficient information concerning investments.

Conclusions

The following conclusions were drawn by analysis of questionnaire responses and mathematical computations:

1. Interest from the investment of school district funds is an important source of additional revenue for many school districts.

2. Practically all of the school districts that invest in securities purchase those issued by the U.S. Treasury.

3. The distribution of interest rates earned during 1966-67, especially in U. S. securities, indicated a loss of potential revenue to those school districts earning less than 3½ percent on investments.

4. The school districts with enrollments of over 50,000 are more efficient and earn more money from the investment of idle funds.

5. The taxpayers of many school districts have been deprived of large amounts of additional revenue because of the lack of investments. Fifty-seven districts reported no interest earned during the 1966-67 school year. Had these districts invested money as efficiently as the ones that did invest, they would have had total potential earnings of $21,980,000.

Recommendations

1. Each state legislature should examine statutes related to the legality of school districts' investing money. Appropriate action should be taken to permit local school districts to invest in U. S. government issues, state government issues, and insured savings accounts.

2. University and college departments of Educational Administration should assume responsibility for educating prospective superintendents and business managers concerning the possibilities for earning revenue by investing idle school funds.

3. Each state department of education should establish and publish guidelines to be used by local school officials for making investments. The guidelines should contain an explanation of the statutes related to the types of investments allowed.

4. Each local board of education should study the possibilities for investments and then develop policies and procedures to make investments that will provide the greatest amount of revenue possible.

5. Boards of education should delegate the administrative authority and responsibility for the investment program to one official, who is thoroughly acquainted with the fiscal policies of the board of education and with investment procedures. He should have authority to make investment transactions within the written policies of the school board. He should investigate investment possibilities and choose investments which will produce the greatest possible yield.

6. The U. S. Office of Education should collect and publish information concerning how much interest school districts earn by investing idle funds.

Possibilities for Investment

The U. S. Treasury issues four types of securities: Treasury bills, certificates, and notes, generally considered to be short-term investments and Treasury bonds, generally considered to be long-term investments instruments.

In addition to the securities issued directly by the Treasury, certain federal government agencies have authority to issue obligations. Those having the authority to issue obligations guaranteed by the U.S. Government include the Federal Housing Administration and the Tennessee Valley Authority; those issuing obligations not guaranteed by the U.S. Government include Banks for Cooperatives, Federal Home Loan Bank Systems, Federal Intermediate Credit Banks, Federal Land Banks, and the Federal National Mortgage Association.

Local banks offer investment opportunities through savings accounts. Certificates of deposit and time deposits are examples of this type.

Local Determinants of Per-Pupil Expenditure in Suburban High School Districts

Dale E. Fisher

THOUGH EDUCATION in the United States has become the largest single state and local governmental function in terms of money spent, the local school system has retained its unique role in American government. This has stimulated the search, since the 1923 publication by Strayer and Haig, for a formula to equalize expenditure from district to district, but as recently as 1965-66, high school districts in Cook County suburbs of Chicago had a range of current expenditures per pupil in average daily attendance (ADA) from $686 to $1,113. That differing amounts are spent on a child's education among contiguous areas in a given year is baffling, and as yet no adequate explanation for these differences is available. If low expenditure per ADA means lack of educational opportunity, substandard education, and poor preparation for further training, it is of serious concern to students planning their careers, to colleges and industry, and to many governmental agencies.

The problem of this study was to investigate the local determinants of expenditures per ADA. It asked what causes suburban high-school budgets to differ from district to district in expenditure. The approach borrowed heavily from the city study of James, Kelly, and Garms, from the metropolitan study of Sacks and Hellmuth, and from the local-district studies of both Hirsch and Miner.[1] The methodology was the same as in their four studies, the use of multiple correlation and regression techniques. The independent variables incorporated into the study were already mentioned in one form or another in previous studies. The dependent variable, expenditure per ADA, was based solely on local revenue, a technique already used by Miner. The model of char-

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This paper is based on a doctoral dissertation, University of Chicago, 1967.

[1] James, H. Thomas; Kelly, James A.; and Garms, Walter I. *Determinants of Educational Expenditures in Large Cities of the United States.* U.S. Office of Education Cooperative Research Project #2389. Stanford, Calif.: Stanford University, School of Education, 1966. 198 p.

Sacks, Seymour, and Hellmuth, William F., Jr. *Financing Government in a Metropolitan Area.* New York: Free Press of Glencoe, 1961. 387 p.

Hirsch, Werner Z. "Determinants of Public Education Expenditures." *National Tax Journal* 13:29-40; March 1960.

Miner, Jerry. *Social and Economic Factors in Spending for Public Education.* Syracuse, N.Y.: Syracuse University Press, 1963. 159 p.

acteristics of the local area constructed by Hirsch, and the adaptation of the economic theory of supply and demand to school finance by Miner suggested a model of educational demand for this study, based on the theory of consumer demand and additional concepts. Several instances of statistical circularity in related research showed the need for more careful definition of concepts and selection of variables to avoid the kinds of circularity which can occur in regression analysis.

Theoretical Framework

The basic logic of the market economy is that price is a function of supply and demand. This theory reduces the behavior of a vast number of individual consumers and suppliers to a small number of general laws. A related theory is that consumer demand is a function of ability to buy, prices of commodities, and tastes or preferences. With this theory the economist has created an abstract system out of the total aggregate of consumer behavior. An attempt was made in this study to construct an analogous theory which would explain the collective educational demand of citizens who support their local school system through the educational tax levy.

The positions of consumers and taxpayers are only analogous, since consumers operate in the free market in which supply and demand govern prices of commodities and indirectly the consumers' response to price in the private sector. Taxpayers operate through the ballot box and the legislative and administrative delegates of the citizenry, through procedures prescribed by law for the allocation of resources in the public sector. The distinction has obvious implications for a theory of educational demand. The consumer is engaged in the allocation of his own personal and individual resources while the taxpayer has a voice in the allocation of the collective resources of the school district. The consumers' preferences are likewise individualistic, while the taxpayers' preferences are expressed collectively through a majority vote or the formation of pressure groups. The key determinant of consumer behavior is the price of commodities, since price modifies both ability and preference at the point of purchase. But the prices of individual educational goods and services are a function of supply and demand and the discretion of the school board, and per-pupil expenditure is a function of prices, collective ability, collective preference, and societal pressures—factors over which the taxpayers of a district, either individually or collectively, have little control and to which they have little freedom of effective response.

Just as government intervenes in the market economy through taxation and legal controls, it can be theorized that the school board and the superintendent intervene to affect the level of expenditure through formal and informal powers which accrue to their delegated positions. Their use of position and power can be termed intervention.

Another concept for the theory of educational demand is growth of the school district. The effect on consumer behavior of changes in the size of the household suggests that growth is a hidden element in the theory of consumer demand. In educational finance, growth in attendance constitutes a short-term load factor, and indicates longer-term relationships between the sociological and demo-

graphic structures of the community and the functioning of ability, preference, and intervention as determinants of expenditures. These relationships can also be tested by use of specific demographic measures.[2]

In summary, educational demand, which is indexed by current expenditure per ADA, is a function of ability, preference, prices, intervention, and (with appropriate reservations) growth. Expenditure per ADA on the basis of local revenue is analyzed in terms of local determinants. Ability is indexed by assessed valuation per ADA and by median family income from which property taxes are paid. Preference represents expectations for level of services and is indexed by the educational background of adults who have completed 13 or more years of school. Prices are assumed to be controlled by choosing a sample of contiguous suburban high-school districts. This variable is not operationalized in the main body of the research. Intervention is indexed by the expenditure per ADA of nonlocal revenue for driver, special, and vocational education. Growth is the rate of increase in ADA for a five-year period, and substitutes for the load and demographic implications of increased enrollment. Growth also suggests specific demographic measures of the age and working characteristics of the community, with which to predict expenditure.

Sample, Data, and Methodology

The sample was taken from the three Illinois counties which make up the suburbs of Chicago. Of 52 high-school districts in the three counties, 42 were selected because they comprise the high-density suburban sprawl in Cook County immediately around the city, to the north in Lake County, and to the west in DuPage County. The districts of the sample are independent and are part of the Illinois dual-district system, in contrast to districts within the city of Chicago which are part of a unit district and are dependent on the city council for revenue. Contiguous suburban high-school districts are assumed to be homogeneous in terms of prices for goods and services, but heterogeneous enough in other respects to account for differences in per-pupil expenditure.

Many kinds of data were assembled from the 1960 U. S. census and from educational records for the 1960-61 school year lodged in the state archives in Springfield, Illinois. By subtracting state and federal revenue from total current expenditure, expenditure per ADA from local revenue was derived as the main dependent variable (X_1). A second dependent variable was salaries per ADA or total salaries for administrators, teachers, and librarians divided by ADA (X_2). Independent variables were operationalized from remaining data.

Five separate ability variables were considered: assessed valuation of property per ADA, median family income, family income per ADA, me-

[2] For the reasons given, growth was included in the initial model and in the empirical analyses suggested by it. This was admittedly an original conception not attempted by other researchers in the field. Major conclusions of the research have not been affected by the inclusion of this variable. However, there is every reason to question whether growth in attendance can be included in a cross-section analysis, and whether the nature of this variable with its complex relationships to other variables does not rule out its inclusion in an abstract model. Since this research does not resolve these reservations about the growth variable, and until further research produces their resolution, it seems safer to admit that the inclusion of growth in the model was an error.

dian value of owner-occupied housing, value of owner-occupied housing per ADA. Of these, two were selected, assessed valuation per ADA (X_3) and median family income (X_4), because they represent the legal base for the educational tax levy and the current income from which taxes are paid.

Twelve inter-related preference indicators suggesting educational expectations were considered from categories of social class indicators: occupation, educational background, college enrollment of children, income, and housing. Of these 12, the percentage of adults with 13 and more years of schooling (X_5) was chosen to represent the educational expectations of the community for educational services in the public high school.

The selected indicator of administrative intervention was per-pupil expenditure per ADA of federal-state revenue for driver, special, and vocational education (X_6). This measure was preferred over administrative strategies and decisions involving cost components or implications, which would have tended to induce circularity with the dependent variable.

The measure of growth was the rate of increase in ADA for the five-year period from 1955-56 to 1960-61 (X_7).

Twenty-five additional demographic measures were tested for significance, and two were ultimately selected for use in an extended model: the ratio of families to secondary-school-age children, and the ratio of civilian workers to school-age children.

The introductory analysis of data was based on the zero order correlation matrix of all variables, scatter diagrams, and mean expenditures for quartiles of districts distributed in terms of all variables. Table 1 contains zero-order correlations of variables X_1 to X_9. The purpose was to discover the degree and nature of the correlations between expenditure on the one hand, and individual variables of ability, preference, intervention, and growth on the other. On the assumption that determinants of salaries are also determinants of expenditure, the same kind of analysis was carried out for this variable, X_2. This introductory analysis laid the groundwork for subsequent use of multiple correlation and regression techniques.

The regression analysis of data utilized step-wise regression techniques. Equations and individual variables were tested for their prediction of the dependent variable, their confidence level as compared with a normal distribution, and their explanatory power in relation to the dependent variable. Two models were used, a simplified model (Model A) involving the independent variables of assessed valuation (X_3), preference (X_5), intervention (X_6), and growth (X_7); and an extended model (Model B) involving the independent variables in the simplified model, plus a second ability measure, median family income (X_4), and two demographic measures (X_8 and X_9). Finally, estimates were derived for the whole sample, as well as for 10 subsamples, with emphasis on the subsamples of residential and industrial districts. The regression analyses were supplemented by speculations concerning residual variables, and interview-analyses of deviate districts.

Research Findings

1. The hypothesis that when price is controlled, expenditure is a function of ability, preference, intervention, and growth is acceptable on the basis of the multiple correlation co-

efficients for the whole sample for Models A and B.

2. The determinants of expenditure per ADA are also determinants of salaries per ADA. The substitution of salaries per ADA for expenditure per ADA as the dependent variable converts the model of educational demand into a model of salary demand. More of the variation in salaries from district to district is explained than in expenditure per ADA. It may be that a given set of factors is more likely to affect the level of a single type of expenditure, such as salaries per ADA, than the whole aggregate of factors making up expenditure per ADA.

3. Holding the nonability variables constant (preference, intervention, and growth), the ability variables in combination (assessed valuation and median family income) explain 47.0 percent of variance in expenditure, and only 28.7 percent of variance in salaries. The nonability factors in combination explain 18.2 percent of the variation in expenditure, as compared to 48.0 percent of variation in salaries. Therefore, expenditure per ADA is predicted much less by the nonability factors than are salaries per ADA.

4. Preference variables indicating educational expectations of the community took 12 inter-related forms in the research. In the selection of a preference indicator, those representing income or housing were rejected because of their ability connotation. White-collar workers in percent, college enrollment of children, and high-school graduation of adults explain, individually, the same amount of variation in per-pupil expenditure. The percentage of adults with 13 or more years of school (X_5) correlates higher with expenditure than the variables above, and seems to be a useful indicator of the educational expectations of the community. If X_5 picks up the correlation between expenditure and ability, it is also true that the adults in question have at least one year of college as proof of their interest in education.

The relationship between preference (X_5) and expenditure is curvilinear. Mean expenditures for preference quartiles occur in this order from highest to lowest: $800, $673, $637, $718. Curvilinearity exists because the lowest quartile contains districts which are industrial in character and have high expenditure based on the presence of industrial property as a tax base.

5. The relationship between intervention (X_6) and expenditure (X_1) is curvilinear. Mean expenditures for

TABLE 1.—ZERO ORDER CORRELATION MATRIX FOR KEY VARIABLES

	Variables	PPOE3	PPAV	MFI	SC13MY	GADA	PPSFSR	RFSSAC	RCLSAC	PPS
X_1	PPOE3	1.00								
X_3	PPAV	0.723	1.000							
X_4	MFI	0.498	0.381	1.000						
X_5	SC13MY	0.322	0.321	0.775	1.000					
7_7	GADA	—0.157	—0.009	0.126	0.260	1.000				
X_8	PPSFSR	0.154	0.027	—0.115	0.023	—0.077	1.000			
X_9	RFSSAC	—0.230	—0.127	—0.055	0.128	0.170	0.155	1.000		
X_9	RCLSAC	0.335	0.331	0.036	—0.035	—0.390	—0.060	—0.119	—1.000	
X_2	PPS	0.834	0.624	0.645	0.560	—0.137	0.321	—0.210	0.287	1.000

Key: PPOE3, per-pupil operating expenditure from local revenue; PPAV, per-pupil assessed valuation of property; MFI, median family income; SC13MY, percentage of adults completing 13 or more years of school; GADA, growth in ADA over a five-year period; PPSFSR, per-pupil selected federal-state revenue; RFSSAC, families per secondary-school age child; RCLSAC, civilian workers per school age child; PPS, per-pupil salaries.

intervention quartiles occur in this order, from highest to lowest: $755, $684, $670, $704.

The correlation between intervention (X_6) and assessed valuation (X_3), preference (X_5), and growth (X_7) is virtually zero for the whole sample. (See Table 1.) There is a negative correlation between median family income (X_4) and intervention (X_6) and for the whole sample and for the high- and low-income subsamples, which is greater in low-income districts.[3] This means that administrative diversification of educational programs is more likely in higher-income districts. However, X_3 and X_6 are decidedly positive correlated for low-ability districts, and decidedly negative for high-ability districts, both significant at the .05 level. The correlation of X_5 and X_6 is small but positive, 0.137, for the high-preference subsample.[4] The correlation of X_7 and X_6 is closer to zero in the high-growth districts than in the low-growth districts where the correlation [5] is negative, -0.246. This shows that growth in attendance is a short-term depressant on intervention and that initially the development of driver, special, and vocational education does not keep pace with attendance increases.

6. The correlation between growth (X_7) and expenditure (X_1) is negative, probably because growth has its initial impact primarily as a load factor which conceals longer-term relationships behind cycles in the crowding and expansion of facilities. The relationship is erratic, as is evident from mean expenditures for growth quartiles, going from highest to lowest: $679, $732, $639, $672. Since growth is a very complex variable with relationships to all other variables, it is likely that its erratic performance on a scatter diagram is the effect of the interaction of growth and other determinants of expenditure, rather than the direct effect of growth on expenditure.

The initial negative effect of growth in attendance conceals longer-term relationships between growth in attendance and other independent variables. The correlation between X_3 and X_7 is negative and virtually zero for the whole sample and for high-growth districts, and negative, -0.396, for the low-growth districts.[6] In low-growth districts, or in districts initiating a growth cycle, increases in assessed valuation do not keep pace with increases in attendance. The correlations of X_4 and X_5 with growth are virtually zero for the whole sample, positive in high-growth districts, and negative in low-growth districts. Though the correlations are not significant, growth seems to have a short-term negative relationship to income and preference, becoming positive as the growth cycle reaches its peak. As previously mentioned, growth is a short-term depressant on administrative intervention.

7. If median family income (X_4) is eliminated from the Model B equation for expenditure per ADA (X_1), civilian workers per school-age child is significant at the .01 level, demonstrating the relationship between the variable and ability. The elimination of growth (X_7) from the equation results in no changes in the significance level of variables, demonstrating that in the case of X_1 there is no significant relationship between other variables and growth in attendance.

[3] Significant at the .20 level.
[4] Significant only at the .50 level.
[5] Significant only at the .30 level.
[6] Significant at the .10 level.

TABLE 2.—LEAST SQUARE COEFFICIENTS

	Constant term	X_3	X_4	X_5	X_6	X_7	X_8	X_9	Multiple R	Multiple R^2
					PER-PUPIL EXPENDITURE (X_1)—WHOLE SAMPLE					
A	450.71	0.0040[a]		148.45	2.1855	—67.020[c]			0.761[a]	0.579
B	286.43	0.0033[a]	0.0310[a]	—144.33	3.8615[a]	—34.969	—21.577	29.349	0.819[a]	0.672
					INDUSTRIAL SUBSAMPLE					
A	384.50	0.0044[a]		146.16	3.5180	—61.371			0.793[a]	0.630
B	458.48	0.0041[a]	0.0209	—105.57	5.3705[a]	—17.958	—44.972[a]	—30.014	0.872[a]	0.761
					RESIDENTIAL SUBSAMPLE					
A	494.92	0.0039[a]		112.59	1.0016	—76.156			0.701[b]	0.492
B	127.24	0.0028[b]	0.0729[a]	—295.31	2.5457	—139.39[c]	—22.878	62.175	0.840[b]	0.705
					PER-PUPIL SALARIES (X_2)—WHOLE SAMPLE					
A	288.27	0.0016[a]		247.19[a]	2.8567[a]	—47.100[a]			0.930[a]	0.689
B	217.63	0.0011[a]	0.0170[a]	92.077	3.9144[a]	—25.783[c]	—18.353[a]	20.045	0.899[a]	0.807
					INDUSTRIAL SUBSAMPLE					
A	234.88	0.0018[a]		282.64[a]	4.2819[a]	—46.131[a]			0.851[a]	0.724
B	115.79	0.0003	0.0255[c]	—3.0972	6.5480[a]	37.149[d]	—33.815[a]	51.165[b]	0.955[a]	0.912
					RESIDENTIAL SUBSAMPLE					
A	323.93	0.0021		63.198	1.6227[b]	—51.601			0.854[a]	0.728
B	228.62	0.0018[a]	0.0183[b]	47.713	2.1722[b]	—63.574[a]	—11.917[d]	33.396[c]	0.922[a]	0.850

[a] Significant at .01 level.
[b] Significant at .05 level.
[c] Significant at .10 level.
[d] Significant at .20 level.

8. If median family income is eliminated from the Model B equation for salaries per ADA (X_2), preference (X_5) is significant at the .01 level. If X_3 and/or X_7 are eliminated from the equation, civilian workers per school-age child is significant at the .01 level, demonstrating the relationship of this variable to ability and growth.

9. The demographic measures of families per secondary-school-age child (X_8) and civilian workers per school-age child (X_9) together explain 2.0 percent of the variance in X_1 and 4.0 percent in X_2. X_8 tends to be higher in districts with a majority of young families, as is the case in fast-growing districts, and this condition has a negative effect on both X_1 and X_2. X_9 tends to be higher in slow-growing districts, and this condition has a positive effect on both X_1 and X_2. Stating this in other words, the greater the number of school-age children per civilian worker, that is, the greater the load, the lower are both expenditures and salaries in high schools.

10. In some counties of Illinois, the weight of personal property tax laws falls mainly, if at all, on business and industry. Those districts which are above the median in percentage of personal property tax valuations can be called industrial districts, and those below the median can be called residential districts. What distinguishes these two subsamples is the mix of industrial, commercial, and residential kinds of property which comprise the tax base for the educational levy. The kind of property has important consequences for the functioning of the theories of educational demand and salary demand.

The models of educational and salary demand are stronger in industrial districts than in residential districts. (See model B in Table 2.)

The ability and nonability determinants operate differently as pre-

dictors of X_1 and X_2 in the two subsamples. In Models A and B, X_3 predicts X_1 better in industrial districts than in residential districts, and X_2 better in residential than in industrial districts. The three nonability variables, X_5, X_6, and X_7, predict X_2 better in industrial districts than in residential, and X_1 in residential rather than in industrial districts. X_6 predicts both X_1 and X_2 better in industrial than in residential districts. X_7 predicts X_1 better in industrial districts, and X_2 in residential districts.

To summarize, the models of educational and salary demand are useful instruments for predicting either expenditure or salaries per ADA in both the industrial and residential subsamples. However, the models explain more of the variation of X_1 and X_2 in the industrial districts. As determinants of X_1, X_3 is stronger in industrial districts, and nonability factors in combination (X_5, X_6, and X_7) are stronger in residential districts. As determinants of X_2, X_3 is stronger in residential districts, and nonability factors in combination are stronger in industrial districts. The significance levels of particular determinants both of X_1 and X_2 change with the type of district. The conclusion is that the models of educational and salary demand are valid for the suburban sample, but that before application to a particular district, the mix of industrial, commercial, and residential property which comprises the revenue base must be taken into account.

Property Tax Determinants of Educational Expenditures

Laurence E. Harvey

THE STUDY OF public-school finance should logically represent inquiry into a specific area within the broader field of public finance. In recent years this has not always been true. Much of the investigation of public-school finance since the turn of the century has become irrelevant to the broad field of public finance. This is attributable to a study in 1905 by Cubberley which led to the systematic application of the criterion of equality to state school fund apportionments.[1] Following this same tangent, Cubberley's ideas were further developed and refined in the work of Strayer and Haig into general purpose equalizing grants providing equal dollars per pupil among districts of variable property taxpaying ability. These fixed unit type grants have been adopted in various states, largely through the influence of Mort and his students.[2] Subsequent studies, following this line of inquiry into efforts not only for equalizing dollars but also equalizing services, and the degree to which the criterion of equality was met by such plans, have attracted little general interest among investigators in the field of public finance.

In contrast to the efforts to make school finance programs consistent with the equalitarian ideal of what should be, empirical studies of the realities of public spending for education began to appear in the literature of school finance as early as 1936, when Colm reported the results of an investigation of the influence of density, urbanization, industrialization, and per-capita income on state per-capita expenditures for education, highways, relief, and total expenditures.[3] Data were drawn from the 1932 Census of Governments. Since the study to be reported here is in the tradition of finding out what is, rather than proposing what ought to be, the following section reports in some detail on the important empirical studies following Colm's work.

Investigations of the realities of public-school expenditures have sought to identify those characteristics

[1] Cubberley, Ellwood P. *School Funds and Their Apportionment.* Contributions to Education, No. 2. New York: Teachers College, Columbia University, 1906.

[2] Strayer, George D., and Haig, Robert Murray. *The Financing of Education in the State of New York.* Educational Finance Inquiry Commission, Vol. 1. New York: Macmillan Co., 1923.

[3] Colm, Gerhard, and others. "Public Expenditures and Economic Structure in the United States." *Social Research* 3:57-77; May 1936.

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which can explain in quantitative terms the differences in expenditure levels between school districts, counties, cities, or states. These characteristics, or determinants of educational expenditure as they have come to be known, were traced in the chronological order of their most significant investigation and then synthesized into the variables selected for use in this study.

A Rationale for School Finance

A recent series of studies at the Stanford University School of Education, devoted to ordering the field of school finance in theoretical terms, has produced a rationale which postulates three major determinants of educational expenditures in the public sphere:

1. A set of shared expectations for educational services. We have called this condition *expectations*.
2. The availability of wealth from which funds for schools can be allocated. We have called this condition *ability*.
3. A political system that allows the expression of demands, and access to the ability. We have called this condition *governmental arrangements for decision-making*.[4]

These determinants, *expectations* (or demands), *ability*, and *governmental arrangements for decision-making* are intangibles, not readily measurable on a quantitative scale. Empirical work with the rationale has required the use of measurable variables that can be used as proxies for the abstractions.

[4] James, H. Thomas; Kelly, James A.; and Garms, Walter I. *Determinants of Educational Expenditures in Large Cities of the United States*. U.S. Department of Health, Education, and Welfare, Office of Education, Cooperative Research Project No. 2389. Stanford, Calif.: Stanford University, School of Education, 1966. p. 24.

Socioeconomic Factors

Prior studies have used a wide range of socioeconomic factors in investigations of variations of public expenditures, including expenditures for public education. Per-capita income, density, and degree of urbanization have explained as much as 63 percent of the variation in expenditures for public-school education.

Voting Characteristics

Various aspects of the governmental arrangements for educational decision-making have been investigated in earlier studies, with a considerable concentration on state aid arrangements and fiscal dependence or independence. This study included consideration of voter registration and patterns of voting in school-board governing elections as possible determinants of public-school educational expenditures.

Assessed Property Valuation

Taxable property valuation was found to be positively related to expenditures for education in four of the five states in the Five State study. The computed Pearson product-moment correlation was .83 in California.[5]

In summary, recent studies have demonstrated that public-school educational expenditures per pupil in average daily attendance (ADA) are predictable to as much as 71 percent given values of proxies for ability-demand variables. One of these variables with high predictive capability is assessed property valuation per ADA.

[5] James, H. Thomas. *School Revenue Systems in Five States*. U.S. Department of Health, Education, and Welfare, Office of Education, Cooperative Research Project No. 803, Stanford, Calif.: Stanford University, School of Education, 1961. p. 47.

This study stratified the assessed property valuation per ADA by property use category, included selected socioeconomic factors and voting characteristics of constituents of elementary school districts, and investigated further.

Purpose of the Study

The purpose of this study was to identify specific variables from a set of property classification measures, socioeconomic factors, and voting characteristics which have the greatest ability to account for variations in current expenditures for public-school education for every elementary school district in one county.

This study analyzed assessed valuation per parcel of property according to a classification by use of the property. Property value data for each elementary or unified school district in the sample were collected according to the property use classification. Each of the resulting dollar amounts (some of which were zero) were divided by the ADA for the school district. The sum of the resulting quotients for each school district thus equals the "assessed valuation per ADA" in the district.

Variables Used in the Study

Dependent variable

D Total Current Expenditure per Pupil (TE/P)

Independent variables

I-1 Total assessed property valuation per pupil (PV/P)
I-2 Assessed valuation of residential properties per pupil (RES/P)
I-3 Assessed valuation of commercial properties per pupil (COM/P)
I-4 Assessed valuation of industrial properties per pupil (IND/P)
I-5 Assessed valuation of agricultural properties per pupil (AGR/P)
I-6 Median family income (MFI)
I-7 Percent of families with income of $10,000 or more (TEN+)
I-8 Percent of children under 15 (CHILD)
I-9 Median years of education (ED)
I-10 Percent nonwhite (NON-W)
I-11 Percent Mexican-American (MEX-A)
I-12 Percent of housing owner-occupied (HOO)
I-13 Density (DEN)
I-14 Percent unemployed (UNEMP)
I-15 Percent of multiple-residence units (M-R)
I-16 Percent of registered voters (REGIS)
I-17 Percent of registered voters voting in school-board governing election (VOTE)
I-18 Logarithm of number of pupils in average daily attendance (LOG)

Units of Data

Measures of the dependent variable and each of the potential predictor variables were obtained for the 24 elementary and 5 unified school districts (the elementary portion) in Santa Clara County, California. These measures represent the status of each district during the 1966-67 school year.

Statistical Procedures

Five regression equations were computed for this investigation, the independent variables available for selection and entry into the computations being those listed above.

In each case the dependent variable was total current expenditure per ADA in elementary education.

TABLE 1.—ORDER OF ENTRY OF VARIABLES INTO REGRESSION EQUATIONS

Analysis	29 data cases	28 data cases
1	I_1	I_1
2	I_5, I_2	I_3, I_2, I_5
3	I_1	I_1, I_9, I_{15}, I_{13}
4	I_5, I_2	I_8, I_9, I_4
5	I_8, I_{17}	I_8, I_6, I_{16}, I_{12}

Analysis of the Data

The results of the analyses are reported as regression weights in standardized form, and multiple correlation coefficients.

The Five Analyses of Data

In all five analyses the dependent variable was the total current expenditure per ADA (D). The first analysis used I-1 as the only independent variable. The second analysis used four independent variables, I-2 through I-5. The third analyses I-1 and I-6 through I-18. The fourth analysis used I-2 through I-18 as independent variables. The fifth analysis used I-6 through I-18.

Table 1 presents a composite of the findings of the five basic regression models as they were computed first with the full set of 29 data cases, and second excluding the anomalous Montebello district. Only variables significant at least at the .05 level are shown.

With data points from the 29 districts in Santa Clara County, 83 percent of the variation in D is explained through the use I-1 alone in the first analysis.

In the process of gathering the data, an anomalous situation became apparent since 25 of the 29 districts in Santa Clara County had total assessed property valuations per ADA that did not exceed $20,000, three districts had valuations in excess of $20,000 but less than $55,000, and one district (Montebello) had assessed valuation of almost $86,000 per ADA. In addition, while 28 of the districts spent less than $800 per ADA, Montebello spent $1,760 per ADA. Were this situation to exist because the residents of this district had chosen to provide this level of services for children in their school, this would be considered to be a fully valid though exceptional data case. Montebello had only 10 pupils in ADA for the 1966-67 school year. Additional attendance by very few pupils would have sharply reduced the relative level of both expenditure and assessed property valuation since both are per-pupil amounts. Even though the data for the Montebello district appeared to be anomalous when compared with the other elementary districts in Santa Clara County, the data were not erroneous. For this reason the data pertaining to the Montebello district were not discarded for the remainder of the study.

To determine the extent of the effect upon the regression equation by the extremely variant Montebello district, the first analysis and all subsequent analyses were made by using the remaining 28 districts. The resulting multiple correlation coefficient of .766 for the first indicated that 59 percent of the variation in D was now explained through the use of I-1.

Summary of Findings

I-1 Total Assessed Property Valuation per Pupil

This variable, as hypothesized, was a significant predictor in every regression equation for which it was entered. In each case, total assessed property valuation per pupil was the most significant predictor of all the inde-

pendent variables, receiving a beta coefficient about two times the weight for any other variable. In the case of the first and third analysis, when the entire set of 29 data cases was used, this variable accounted for 83 percent of the variation in total current expenditure per pupil in the elementary schools of Santa Clara county.

I-2 Assessed Valuation of Residential Properties per Pupil

This variable was found to be significant in the second and fourth analyses when the 29 data cases were used, and in the second analysis when 28 data cases, excluding Montebello, were used.

It was hypothesized that major elements of the total assessed property valuation per pupil would be more significant determinants of educational expenditures than would total assessed property valuation as a single variable. This is confirmed by the findings of the first and second analysis for the set of 29 data cases and also for the set of 28 data cases. The multiple r's of .912 compared with .941 for 29 data cases, and .766 compared with .811 for 28 data cases result in increases in the coefficient of determination of 6 percent and 7 percent, respectively.

I-3 Assessed Valuation of Commercial Properties per Pupil

This variable was significant in only the second analysis when the 28 data cases, excluding Montebello, were used. The fact that it was the first variable entered into the regression equation shows that it had the highest simple correlation with the dependent variable. The beta weight of .3244 assigned to assessed valuation of commercial properties per pupil in the final equation as compared with .5118 and .4221 for the other independent variables indicated that there was a high intercorrelation between these variables, with the others being more independent predictors.

I-4 Assessed Valuation of Industrial Properties per Pupil

This variable was significant in only the fourth analysis when the 28 data

TABLE 2.—SUMMARY OF VARIABLES FOUND TO BE SIGNIFICANT PREDICTORS OF CURRENT EDUCATIONAL EXPENDITURE PER PUPIL

Variables used	29 data cases					28 data cases				
	Analysis 1	2	3	4	5	Analysis 1	2	3	4	5
I_1	.9119[a]	*	.9119[a]	*	*	.7658[a]	*	.6145[a]	*	
I_2	*	.3077[a]	*	.3077[a]	*	*	.5118[b]	*		*
I_3	*		*		*	*	.3244[c]	*		*
I_4	*		*		*	*		*	.3895[c]	*
I_5	*	.9379[c]	*	.9379[a]	*	*	.4221[c]	*		*
I_8	*	*			—.5603[b]	*	*		—.3991[b]	—.5612[a]
I_9	*	*				*	*	.3336[b]	.4129[b]	.5186[b]
I_{13}	*	*				*	*	—.2593[c]		—.2546[c]
I_{15}	*	*				*	*	.3271[a]		
I_{16}	*	*				*	*			—.3155[c]
I_{17}	*	*			.3303[c]	*	*			
Multiple r	.912	.941	.912	.941	.682	.766	.811	.897	.835	.855
% of variance explained	83	89	83	89	46	59	66	80	70	73

* Not used.
[a] Significant at .011 level.
[b] Significant at .01 level.
[c] Significant at .05 level.

TABLE 3.—SIMPLE COEFFICIENTS OF CORRELATION, ALL VARIABLES, 29 CASES

Variables	Dependent	I_1	I_2	I_3	I_4	I_5	I_6	I_7	I_8	I_9	I_{10}	I_{11}	I_{12}	I_{13}	I_{14}	I_{15}	I_{16}	I_{17}	I_{18}
Dependent	1.000																		
I_1	.912[b]	1.000																	
I_2	.163	.167	1.000																
I_3	.178	.385[a]	.485[b]	1.000															
I_4	.163	.377[a]	.197	.867[b]	1.000														
I_5	.891[b]	.908[b]	.154	.003	.052	1.000													
I_6	.003	—.092	.531[b]	—.149	—.187	—.176	1.000												
I_7	.167	.086	.484[b]	—.175	—.237	.046	.935[b]	1.000											
I_8	—.597[b]	—.681[b]	.484[b]	.665[b]	.442[a]	—.460[b]	.125	—.040	1.000										
I_9	.134	.086	.739[b]	.121	—.015	—.109	.890[b]	.796[b]	.153	1.000									
I_{10}	—.123	.014	—.033	.620[b]	.673[b]	.190	—.467[b]	.601[b]	.099	—.308	1.000								
I_{11}	—.275	—.296	—.358[a]	—.034	.021	—.233	—.473[b]	.619[b]	.350[a]	—.468[b]	.442[a]	1.000							
I_{12}	—.190	—.162	—.107	—.028	.082	—.160	.385[a]	.305	.361[a]	.188	.018	.049	1.000						
I_{13}	—.348[a]	—.384[a]	.047	—0.63	—.216	—.362[a]	—.016	—.043	.238	—.155	—.088	.008	—.010	1.000					
I_{14}	—.146	—.077	—.274	.312	.264	—.104	—.668[b]	.711[b]	.093	—.520[b]	.579[b]	.739[b]	.100	—.085	1.000				
I_{15}	—.126	—.205	.415[a]	.17[illegible]	.021	—.331[a]	—.226	—.265	—.208	—.075	.120	.061	—.64[illegible][b]	.347[a]	.084	1.000			
I_{16}	.002	.004	.348[a]	.026	—.12[illegible]	—.062	.714[b]	.768[b]	.083	.593[b]	.390[a]	—.436[a]	.5[illegible][b]	.020	—.344[illegible]	—.486[b]	1.000		
I_{17}	.393[a]	.309	—.311	—.316	—.32[illegible][a]	.502[b]	.029	.154	—.112	.027	—.332[a]	—.211	—.049	—.308	—.172	—.473[b]	.108	1.000	
I_{18}	—.601[b]	—.725[b]	.206	—.081	—.110	—.789	.256	.055	.513	.139	.072	.244	.309[a]	.407[a]	.053	.364[a]	.076	—.607	1.000

[a] Significant at .05 level.
[b] Significant at .01 level.

cases, excluding Montebello, were used. Although the third of the three independent variables was used in the final regression equation, the beta weights of the variables were approximately equal, indicating equivalent contributions to the net prediction of the dependent variable.

I-5 Assessed Valuation of Agricultural Properties per Pupil

This variable was significant in the second and fourth analyses when the 29 data cases were used. A portion of the significance found in these cases can be attributed to the high agricultural property valuation per pupil and the very high current expenditure per pupil in the Montebello Elementary School District. That this is not the total case, however, may be seen in the second analysis when Montebello was excluded, and total assessed valuation of agricultural properties per pupil was the third of three variables entered into the regression equation, each with approximately equivalent contributions to the combined ability to predict variations in the dependent variable.

I-6, I-7, I-10, I-11, I-12 I-14, and I-18

These variables were not entered as independent variables in any of the regression equations developed for this study. Either these variables correlated poorly with the dependent variable or were highly correlated with a variable that has already entered the regression equation (see Table 2 for zero-order correlations for the 29 cases)

1-8 Percent of Children Under 15

This variable was a significant predictor in the fourth and fifth analyses, when 28 data cases were used, and in the fifth analysis, when 29 cases were used. The respective beta weights of the variable in these analyses indicate a contribution of about 33 percent, 34 percent, and 33 percent of the ability to predict the dependent variable.

I-9 Median Years of Education

This variable was a significant predictor in the third, fourth, and fifth analyses, when 28 data cases were used, with a beta weight indicating a respective contribution of about 22, 34, and 31 percent of the ability to predict the dependent variable.

I-13 Density

This variable was a significant predictor at the .05 level in the third analysis, when 28 data cases were used, with a beta weight indicating a contribution of about 17 percent of the ability to predict the dependent variable, and in the fifth analysis, when 28 data cases were used, with a beta weight indicating a contribution of about 15 percent of the ability to predict the dependent variable.

The findings of this study run contrary to those of Miner. The relationships with the dependent variable were consistently negative in sign, while there were no significant relationships with any measures of income, educational level, minority groups, or unemployment.

I-15 Percent of Multiple-Residence Units

This variable was significant predictor at the .01 level in the third analysis, when 28 data cases were used, with a beta weight indicating a contribution of about 21 percent of the ability to predict the dependent variable.

The hypothesized direct relationship between this variable and the dependent variable was not supported by the findings of the study. There is a lack of permanency indicated by the

findings on voting and voter registration. The sign of simple correlations with income measures was consistently negative although none was significant, indicating a slight tendency toward smaller incomes for occupants of multiple-residence dwelling units than for those who own their homes.

I-16 Percent of Registered Voters

This variable was a significant prediction at the .05 level in the fifth analysis, when 28 data cases were used, with a beta weight indicating a contribution of about 20 percent of the ability to predict the dependent variable.

I-17 Percent of Registered Voters Voting in School-Board Election

This variable was a significant predictor at the .05 level in the fifth analysis, when 29 data cases were used, with a beta weight indicating a contribution of about 37 percent of the ability to predict the dependent variable.

The hypothesis of a negative relationship between the level of educational expenditures and the percent of eligible voters who actually voted in a school-board election was not supported by the findings of the study. The simple correlations, although not significant, were all positive.

Inter-Relationship of Variables

With the exception of I-13, and for the 28 data case set I-17, every variable in the study is encompassed by a set of interlocking simple correlations significant at the .01 level. When the level of significance of the simple correlation is changed to .05, every variable in the study is included in the network.

Conclusions and Recommendations

This study investigated the ability of 18 measures of assessed property valuation, socioeconomic factors, voting characteristics, and school district size to serve as determinants in the prediction of expenditures for current costs of elementary education in Santa Clara County, California.

Assessed property valuations were the most significant determinants of elementary educational expenditures for the 29 elementary school districts. The separate classifications of residential, agricultural, and commercial properties were jointly able to explain from 66 to 89 percent of the variation in the current costs of elementary education for the school year 1966-67. Since simplicity is one of the desired characteristics of a determinant that is to be used for predictive purposes, it should be noted that the single variable, total assessed property valuation per ADA, was able to explain from 59 to 83 percent of the variation in total current expenditure per ADA.

The reason for the range of findings is that the study, drawing data from a limited number of districts, found one of these districts to appear to be an anomalous case. To determine the impact of this apparent anomaly, all analyses were made twice, once for all 29 districts, and again for the 28 more homogeneous districts.

Total assessed property valuation per ADA remained the most significant single determinant of elementary educational expenditures. The separate classifications of residential, agricultural, commercial, and industrial properties were not as significant predictors for the 28 case data set, largely because of the absence of the heavily agricultural property-oriented Montebello district. As a matter of fact, the set of four significant predictors, drawn from socioeconomic factors and voting characteristics, was slightly more predictive, able to explain 73

percent of the variation in current educational expenditures, than was the set of three significant property classification measures, able to explain 66 percent of that variation.

Santa Clara County, which comprises the San Jose Standard Metropolitan Statistical Area, is the second fastest growing county in California. Its estimated population of 893,000 in 1965 is projected to increase to 1,830,000 by July 1, 1985.[6] The transition from an economy and society based upon agriculture to an economy and society keyed to research and development and research-based manufacture, although starting some 50 years ago, has become important only since the end of the Korean War and continues at a rapid pace.[7] The population has shifted from one in which agricultural workers comprised 10 percent of the labor force in 1950 to one in which they comprised only 3 percent in 1960, with more than 50 percent of all employees classified as white-collar.[8] Over 10 percent of the labor force (3,500) hold Ph.D. degrees.[9]

This shift is reflected in the statistical findings of the fourth analysis when for 29 districts assessed valuation of agricultural properties per pupil is the most significant predictor of elementary educational expenditure, while for 28 districts the variables, assessed valuation of industrial properties per pupil, percent of children under 15, and median years of education, are co-predictors of elementary educational expenditure, with equivalent regression weightings. Thus, the findings for the 29 districts represent the current socioeconomic conditions with some vestiges of an agricultural heritage, while the findings for the 28 districts may well be more indicative of the future.

A basic assumption implicit in most state aid formulas is that total assessed valuation of property may be equated with local ability to pay for the costs of public education. Thus, most states use total assessed valuation of property as a criterion in determining the amount of aid to be provided to a local school district. While this study found total assessed property valuation per ADA to be the most significant single predictor of total current expenditure per ADA, measures of major components of assessed property valuation, classified according to property use, increased the coefficients of determination from 83 percent to 89 percent for 29 data cases and from 59 percent to 66 percent for the 28 more homogeneous data cases. These findings indicate that a distribution of state aid on the basis of total assessed property valuation may violate the egalitarian ideal upon which most such formulas are predicated.

State aid has an insignificant effect in equalizing educational expenditures between districts in Santa Clara County, where variations in level of expenditure for public education were found to be most closely related to assessed property valuations. James, Kelly, and Garms found the same to be true in the Large Cities Study. The egalitarian goal appears more likely to be achieved through a change in state policy that would allow local

[6] California Department of Finance, Financial and Population Research Section. Preliminary Projections of *California Areas and Counties to 1985*. Sacramento: the Department, April 20, 1967.

[7] County of Santa Clara, California, Board of Supervisors. *A Study of the Local Impacts of Research and Research-Based Manufacturing: Santa Clara County, California*. San Jose: the Board, March 1967.

[8] *San Jose Mercury*, March 15, 1968.

[9] City of San Jose Planning Department, Advanced Planning and Research Section. *Industry in San Jose*. San Jose, Calif.: the Department, October 1967.

districts to levy upon residential and agricultural properties; the state, to levy upon public utility, commercial, and industrial properties with the resulting funds to be distributed to local districts according to an index of need.

Summary

In testing the rationale of school finance which postulates *ability* and *demand* as major determinants of educational expenditures, it has been recognized that measurable variables must be used as proxies for the abstractions. This study has investigated a group of measurable variables, chosen because they were considered to represent either the ability to pay for educational services, or a demand for such services. The rationale had previously been tested in states or large cities. This study applied the rationale to the elementary schools of the 29 districts of Santa Clara County, California, and found the determinants to be excellent predictors of educational expenditures.

An Analysis of the Relationship Between Social Characteristics and Educational Voting Patterns

Wilson K. Jordan

THE PURPOSE of this research was to ascertain the relationship between the social characteristics of the residents of a metropolitan community and their voting patterns in a school financial election. Specifically, the urban sub-populations within the Los Angeles Unified School District were analyzed in relation to the percent of affirmative vote and the percent of eligible voters who voted in the 1963 school bond election.

An attempt was made to answer the following questions:

1. What was the percent of favorable vote given to the school bond election by the populations of the census tracts within the district?
2. What was the relationship between the percent of favorable vote of the populations of the census tracts and the percent of voters actually voting?
3. What was the relationship between percent of voters actually voting and those socioeconomic characteristics defined as social rank, urbanization, and segregation?

Many reasons may be advanced for the success or failure of an election effort: the amount of voter turnout, the number of issues on the ballot, or even weather conditions on election day. Ecological correlations, wherein the political, social, and economic contexts of an election are analyzed, are relatively uncommon in education, maybe because school district elections are classified as nonpartisan and every attempt is made to view the results in that framework. In addition, there may be a tendency, when dealing with election results on school issues, to minimize or overlook the role of social class. This is an understandable oversight since the benefits and effects of education are expected to reach all people regardless of economic or social status.

Whatever the reason, there is nonetheless a dearth of studies in education which have sought to analyze voter behavior patterns in terms of socioeconomic characteristics. In a metropolitan complex the size of Los Angeles, it appeared reasonable to assume that a greater diversification of backgrounds and consequently of attitudes would exist than in smaller, more homogeneous population areas. A city of three million residents should provide considerable variation in economic status, family status, and ethnic status. These community characteristics might be among the factors that determine voter response in elec-

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tions. If degrees of social rank, urbanization, and segregation in a community are reflected in the voting patterns of school elections, these patterns can be used to predict voter behavior.

Procedure

The hypothesis of this research was that in a metropolitan area there would be a definite relationship between those social categories defined as social rank, urbanization, and segregation and (a) the percent of affirmative vote, and (b) the percent of eligible voters who voted in a school bond election.

The population unit was the census tract because it is a fixed geographical unit whose boundaries follow well-defined highways and topographical features, and as part of a Standard Metropolitan Statistical Area it is considered almost permanent in its form. Therefore, the 709 tracts within the boundaries of the Los Angeles Unifed School District were selected for analysis.

The use of the Shevky-Bell typology was considered desirable in this study because it provided a standardized method of urban analysis and offered an opportunity to view social statistics, not as independent factors, but as part of a wider system of social relationships.

Shevky and Williams [1] made a social area analysis of the census tracts of Los Angeles County based on an originally designed typology. In 1955, Shevky and Bell [2] revised the typology and used 1950 census data to analyze census tracts of the San Francisco Bay region.

The revised typology was constructed on three dimensions and was considered to be one of the better methods of empirically differentiating the social characteristics of a contemporary city. The three scales were: (a) social rank, which was based on occupational and educational levels of the residents of an area; (b) urbanization, which was based on variations in life styles and measured in terms of the number of children, working mothers, and the type of housing in an area; and (c) segregation, which was based on the percentage of residents of an area who were members of designated racial and ethnic groups. Shevky and Bell believed that these indicants of behavior patterns for urban populations best reflected the social statistics of our modern society.

The analysis of the relationship between social characteristics and educational voting patterns required that two types of data be used in this study: (a) the election results for the Los Angeles Unified District bond election of May 28, 1963; and (b) the socioeconomic characteristics of the population of that school district.

The election returns by precinct were available from the Los Angeles County Registrar of Voters, and the school district had analyzed them in relation to the elementary-school areas because these had been used as zones for the election.

For this study it was more useful to establish the results by census tracts so that the data would be comparable to other information which was to be used. Also important in this decision was the fact that elementary-school boundaries and precinct boundaries were not coterminous. In many in-

[1] Shevky, Eshref, and Williams, Marilyn. *The Social Areas of Los Angeles: Analysis and Typology.* Berkeley: University of California Press, 1949. 172 p.

[2] Shevky, Eshref, and Bell, Wendell. *Social Area Analysis.* Stanford, Calif.: Stanford University Press, 1955. 70 p.

stances this required that portions of a precinct vote be assigned to different elementary schools. By using census tracts, this was not necessary since the precinct boundaries were designed within the boundaries of the census tract.

In November 1964, the Los Angeles County Registrar of Voters had prepared for the first time a booklet which listed all of the census tracts for Los Angeles County and showed the precincts within each census tract. By using this booklet and by including only those precincts (5,328) in which votes were recorded at the May 28, 1963, election for the Los Angeles Unified District, a voting record was established for each of the 709 census tracts within the district.

The primary source for the socioeconomic characteristics of the residents of the census tracts of the school district was a study made by Correll [3] in which the Shevky-Bell typology was used to compile a sociological rank for each of the 1,297 census tracts in Los Angeles County. An index rank for each of the 709 census tracts of the school district was thus determined. This index rank represented a composite evaluation of each census tract based on the three scales of social rank, urbanization, and segregation.

The social rank construct represented a scale determined largely by economic elements. The components were educational status and occupational status. Educational status was measured by the number of persons who had completed six years or less in school in relation to the number of persons 25 years old and older. Occupational status was measured by the number of craftsmen, laborers, and operatives in relation to every 1,000 employed persons. An average of the standard scores of these two variables established an index of social rank, and percentile scores were determined in relation to the range of this index. Zero represented lowest status value and 100, highest. A low index indicated many craftsmen, laborers, and operatives, and many persons who had completed grade school only.

The urbanization construct represented an attempt by Shevky and Bell to use an economic base while viewing the organizational structure of the family.[4] To measure differences in family structure and social behavior three variables were used: (a) fertility as measured by the number of children under five years of age in relation to every 1,000 females of childbearing age (15-44); (b) the number of women in the labor force for every 1,000 females 14 years of age and older; and (c) the number of single family dwelling units of all types in order to determine a ratio. An average of the standard scores for these three elements represented an urbanization index. When converted to percentile scores, a low index represented high fertility, few women in the labor force, and many single-family dwelling units—low urbanization. A high index showed low fertility, many women in the labor force, and few single-family dwelling units—high urbanization.

The segregation construct permitted an evaluation of ethnic and cultural variations and consequent interaction patterns. The variable used was the number of persons in highly isolated population groups in relation

[3] Correl, Vincent I. *The Effect of School District Size upon Citizen Interest in Schools.* Doctoral Dissertation. Los Angeles: University of California, 1963. 174 p.

[4] Shevky, Eshref, and Bell, Wendel, *op. cit.*, p. 68.

to the total population. Groups were considered to be highly isolated if their average proportion in the population of neighborhoods where they lived was equal to three or more times their respective proportion in the population of the county. The population groups included were Negroes, Mexicans and Mexican-Americans, Orientals, and persons born in Russia, Italy, Poland, Austria, and Hungary. Census tracts were considered to be segregated if the combined racial and national groups exceeded 26.1 percent of the total population of the tract.

The decision to use the two-by-two contingency tables as the mathematical model was based on a number of reasons. The number of cases (709) and the inclusion of the total population required a format which would assimilate the data. A package Fortran II computer program was available and would establish highly adequate distribution scales and computational outcomes. A quartile analysis of the data could be done quite simply and would correspond to the Shevky-Bell categories of high, high-medium, low-medium, and low.

The statistical result, based on the data and method described, represented the electorate opinion of voters in a large metropolitan school district. The introduction of socioeconomic characteristics considered relevant to the distribution of that opinion provided a basis for the resulting survey analysis.

Through the use of the contingency tables, the census tract data established under the Shevky-Bell constructs could be compared with the election results for the school district. The dependent variables of percent of favorable vote and percent of turnout were compared to social rank, urbanization, segregation, and the composite of these three elements, index rank. The statistical method of correlational analysis provided a technique for indicating the magnitude of the relationship between the variables. The relationships were described as weak, modest, strong, or very strong. Correlations which varied either positive or negative, between 0 and 10 were considered weak; those between 11 and 25, modest; between 26 and 50, strong; and above 50 as very strong. In addition to this empirical association expressed by the degree of relationship between variables, the knowledge provided permitted certain predictions about the dependent variables.

Findings

The comparison of social rank with the two dependent variables, percent of favorable vote and percent of turnout, showed that the potential for the defeat of the bond proposition existed in the low-middle range on the social rank scale. Not only did the larger number of tracts in this group fail to pass the bonds, but it was also within this group that the lowest voter turnout occurred. Higher turnout might very well have tipped the scale sufficiently to defeat the issue throughout the school district.

The support shown in the upper and upper-middle brackets of social rank, while not as overwhelming as that in the lowest bracket, was nonetheless quite favorable (68 percent) and was assisted by a high degree of turnout within those tracts with the highest social rank. This was coupled with 86 percent support of the bond proposal by those tracts in the lowest range on the social rank scale, and substantiated the hypothesis that the tracts with high and low education and income indexes would be most

prone to vote affirmatively at a bond election.

Also significant was the fact that within those tracts with the lowest social rank there was no evidence of low turnout, as had been expected. In fact, 85 tracts had a turnout between 40 and 72 percent and only 92 tracts out of the total of 177 were recorded with turnout below 40 percent. The district mean for turnout was 39.66 percent, so there was a refutation of the theory that a low educational level and an uninformed electorate would produce a low voter turnout. Much of the success of the bond issue stemmed from this source.

The urbanization analysis reflected an even more pronounced evidence of support by the high and low ends of the scale. The fact that 81 percent of the tracts in the lowest bracket of urbanization rank supported the bond proposal was confirmation of a hypothesis. It was believed that tracts with a high percentage of children, with few working mothers, and many single-family dwellings would tend to vote affirmatively. It was not necessarily expected that those tracts with conditions exactly opposite would also support the bond issue.

The support was minimized to some degree when the turnout scattergram was included in the analysis. Not only was low turnout seen among the tracts which ranked lowest and highest on the urbanization scale but only 50 percent support for the bonds came from the tracts in the lower middle of the scale. At the same time 55 percent of those tracts were in the top brackets for turnout, and thus represented the major source of negative votes at the election. The fact that the tracts in the upper middle section of the scale also had high turnout and low affirmative vote meant that the strong support provided by the tracts in the upper bracket undoubtedly prevented the defeat of the entire issue.

The segregation status of the tracts had a very definite bearing on their voting patterns and undoubtedly reflected low-income, low-homeownership and low-education indexes. While segregation *per se,* therefore, would not necessarily predict high voter support, it could be considered an indicant. Banfield and Wilson's study [5] failed to reveal a significant correlation between percentage of Negroes and the strength of the "Yes" vote, but it was believed that this was due to the small number of Negro homeowners in Cleveland at that time. The more highly segregated tracts in the Los Angeles Unified School District area showed an extremely high support of the bond proposal election in 1963. In fact 80 percent of the segregated tracts (327), as classified by the Shevky-Bell scale, voted above the required two-thirds majority. By contrast only 46 percent of the nonsegregated tracts (382) passed the bond proposal. Among those tracts which were the most highly segregated (above 56 percent) 96 percent passed the bond issue. The most apparent evidence of this existed in the central city area which can be classified as containing a heavy density of Negroes.

There did not exist, however, a marked pattern in relation to turnout among the nonsegregrated and segregated tracts: 57 percent of the segregated tracts and 54 percent of the nonsegregated tracts were shown with a turnout below 40 percent. The most noticeable difference in turnout was seen in the range between 40 and 45 percent; 106 nonsegregated tracts

[5] Banfield, Edward C., and Wilson, James Q. *City Politics.* Cambridge, Mass., Harvard University Press, 1963. 362 p.

and only 58 segregated tracts were found in this third quartile of the turnout scale. The hypothesis that the lowest turnout would occur in those tracts which possessed a high percentage of an isolated population group was substantiated only in this instance.

When the voting record of the census tracts of the school district was analyzed in terms of the composite socioeconomic classification called index rank, it was understandable that the greatest support was shown in those tracts classified at the lowest end of the scale. The second strongest degree of support, however, appeared in the upper middle bracket of the scale and not in the highest bracket as might have been expected from the social rank and urbanization comparisons.

In each instance, the poorest support for the bond proposal was evidenced in those census tracts which were classified in the lower middle range on all three scales of social rank, urbanization, and index rank. On the social rank scale 43 percent of the tracts in the lower-middle bracket passed the bond proposal. The urbanization scattergram showed that 50 percent of the tracts in the quartile passed the bonds, and on the index rank scale only 39 percent of the tracts in the low-middle range showed an affirmative vote above the required majority.

The application of the "public-regardingness" principle to these data indicates that the voters in the lower-middle range of socioeconomic rank are most prone to attempt to maximize their family income. With a self-interest that is narrowly conceived these people are, as Banfield and Wilson demonstrated,[6] the most likely to vote against a financial election issue which they believe will raise taxes. The high quartile on those same scales, where public-regardingness has been found to be considerably higher, showed the social rank scale with 64 percent of the tracts passing the bonds, the urbanization scale with 65 percent of the tracts passing the bonds, and the index rank scale with 50 percent of the 178 tracts passing the bonds.

An even more vivid contrast existed between the figures above and those for the tracts in the lowest quartile range on those same scales. On the social rank scale 80 percent of the tracts passed the bonds and for the urbanization factor 81 percent of the tracts in the lowest quartile supported the bond proposal. For index rank 82 percent of the 177 tracts had a favorable vote sufficient to pass the proposal.

Table I presents a composite analysis of these data.

Conclusions

It was evident, therefore, that the basic question asked originally in this research of whether or not there was a relationship between a voter's socioeconomic status, specifically in a metropolitan complex, and his voting tendency, specifically in a school financial election in the second largest school district in the nation, could be answered in the affirmative.

The conclusions which could be drawn as a result of the analysis of this 1963 election were:

1. A concerted effort should be made to secure the vote in the areas of the school district which are classified at the two extremes of the socioeconomic scale.

2. The tracts whose ethnic and racial composition represents a higher proportion than the county popula-

[6] *Ibid.*

TABLE 1.—PERCENTAGE OF TRACTS BY QUARTILE VARIABLE PASSING THE BONDS

Variable	Quartile			
	Low	Low-medium	High-medium	High
Social rank	80%	43%	65%	64%
Urbanization	81	50	53	65
Segregation	97	57	47	45
Index rank	82	39	78	50
Number of tracts (709)	177	177	177	178

tion figures should be encouraged to register and to vote.

3. A high percentage of favorable voter response can be obtained from those tracts in the low range on the education scale.

4. Low voter turnout can usually be expected to produce fewer negative votes.

5. Tracts with a high percentage of children will provide better voter support than those with many older people.

6. The tracts most likely to support a school financial election are those classified on the Shevky-Bell scale respectively as:

a. Low-medium social rank, low urbanization, segregated
b. Low-medium social rank, low-medium urbanization, segregated
c. High social rank, low urbanization, nonsegregated

7. The tracts most likely to defeat a school financial election are those classified on the Shevky-Bell scale respectively as:

a. High-medium social rank, low-medium urbanization, nonsegregated
b. High social rank, low-medium urbanization, nonsegregated
c. High social rank, high-medium urbanization, nonsegregated.

Lazarsfeld in his foreword to the work by Hyman [7] described such a research operation as this an "elaboration" process designed to uncover conditions, contingencies, spurious factors, and interpretations. It is to be hoped that the description and explanation of these data, and specifically of their interrelationships, should provide certain predictive information for both the educator and the social scientist as the result of similar ecological studies.

[7] Hyman, Herbert. *Survey Design and Analysis: Principles, Cases and Procedures.* Glencoe, Ill.: Free Press, 1955. p. xiv-xv.

An Adequate Foundation Program and State Distribution Formula for Indiana School Districts

Ralph L. Kelly

THE PURPOSE OF this study was to analyze current instructional costs and their relationship to that portion of the Indiana Foundation Program providing state support for instructional purposes during the 1966-67 school year.

During the past years, superintendents in Indiana have discussed the recognized program for instructional costs in the Indiana Foundation Program distribution formula ($185 per pupil in resident average daily attendance (RADA)). They said that it was unrealistic and did not meet the demands of the school districts. This is evidenced by a number of school districts that advertised tax rates above the statutory limit in preparation of their 1969 budgets in July 1968.

Instructional costs are a major item in school budgets and must be met each year if schools are to maintain the quality of education desired. In recent years, when additional state revenue was appropriated for instructional costs, the increased amount was on a RADA basis for each school district regardless of its assessed valuation. This seemed inequitable because of the variation in the taxpaying ability of local school districts. The increased costs due to inflation and greater salary demands made the recognized program unrealistic.

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Definitions of Terms

Foundation program: a basic educational program that should be guaranteed to all children of the state.

Instructional costs: All expenses in the regular school budget that occur under account "B" Instruction with the exception of summer school and evening school.

Local chargeable tax rate: the tax rate of local adjusted assessed valuation which must be levied for the support of a foundation program.

Local share per RADA: the result of multiplying a qualifying rate of $.65 times the school corporation's adjusted assessed valuation and dividing the product by RADA. The quotient is the local share per RADA in the present Indiana Foundation Program.

State recognized program: an amount of $185 per RADA in the Indiana Foundation Program for instruction.

State share per RADA: the difference between the adjusted state

recognized program within the formula and the local share per RADA.

Taxpaying ability: a measurement of a school district's ability to support education expressed as the adjusted assessed valuation per RADA.

A study of instructional costs used data from 243 school districts in Indiana maintaining a high school and having a RADA of 1,000 or more pupils in grades 1 through 12 for the school year 1966-67. The local share of instructional costs was 60.2 percent. The average instructional cost per RADA was $379.70. Fifty percent of the school districts had instructional costs less than $357 per RADA. The range of instructional costs per ADA varied from $207 to $531 per district. Fifty-five percent of the school districts, with 66 percent of the ADA, had instructional costs ranging from $340 to $419 per pupil in ADA.

There was a tendency for school districts with greater adjusted assessed valuation per RADA to have higher per-pupil instructional costs. There was less variation in the instructional cost per ADA for those school districts with an adjusted assessed valuation ranging from $8,000 to $9,999 per RADA. There was a tendency for the larger school district to have a greater per-pupil instructional cost.

The greatest percentage of ADA was in those school districts with an adjusted assessed valuation per RADA ranging from $8,000 to $8,499. The average instructional cost per ADA for this group was $389.

An Analysis of State Support for Instruction As Provided by the Indiana Foundation Program

The amount of state support received from the state recognized program varied from $22 per pupil to $190 per pupil for the individual school districts. However, 174 school districts, representing 75.34 percent of the ADA, were receiving from $140 to $169 per pupil in ADA, and 130 school districts, representing 69.70 percent of the ADA, were receiving 30.0 to 44.9 percent of state support of their instructional costs. The adjusted assessed valuation of these school districts ranged from $3,443 to $17,899 per RADA.

There were 183 school districts, representing 78.28 percent of the ADA, receiving 65.0 to 79.9 percent of state support based on the state recognized program of instructional costs. The adjusted assessed valuation of these 183 school districts ranged from $3,443 to $10,796 per RADA.

The difference in the percentages of reimbursement is due to the per-RADA allowance of $185 for the instructional part of the Indiana Foundation Program.

The $185 per-RADA allowance seemed unrealistic in determining the amount of state support in light of the average instructional cost per pupil in ADA of $379.70. If a foundation program is to guarantee a basic educational program to all children of the state, the distribution formula should be based realistically on instructional costs of the school districts. The average amount of state support per pupil varied from a low of $138 to a high of $167 for 80 percent of the school districts, with a range in their adjusted assessed valuation of $5,500 to $11,499 per RADA. The difference of $29 per pupil does not seem proportionate to the wealth factor (adjusted assessed valuation) of each school district. The amount of state support did not necessarily increase for the poor school districts. The method of distribution does not seem

to serve as an effective method of equalization based on the wealth factor.

There seemed to be less variation in per-pupil expenditure for school districts close to the median on assessed valuation. Every school district had an average per-pupil expenditure greater than the recognized program of instruction as provided by the Indiana Foundation Program. The differences between instructional costs and the recognized program for instruction varied from $60 to $252 per pupil in ADA in 21 selected districts.

Suggested Revision of the Indiana Foundation Program

A major purpose of this study was to formulate a foundation program that would provide a more adequate per-pupil allowance for instructional costs based on current expenditures and that would result in the distribution of the state share in inverse proportion to local taxpaying ability.

Revision of the Indiana Foundation Program began with determining the average taxpaying ability of selected school districts in Indiana. The median school district was selected from the 243 school districts arranged in order of their wealth based on the adjusted assessed valuation. Ten school districts were selected on each side of the median, and the average per-pupil instructional costs of the 21 school districts were computed. The average instructional cost of $352 per RADA of these 21 districts became the recognized program for instruction (per-pupil allowance in the proposed foundation program).

Selection of the Key District

Mort offered a solution to the problem of determining the amount of state aid necessary to support the minimum educational program. He believed that the maximum local contribution is the tax rate necessary for the wealthiest district of adequate size to provide sufficient funds to support the proposed program. A higher tax rate results in the poorer school district making a greater effort to support a minimum program. The wealthier school districts are not required to put forth as much effort as that required of all districts to support the minimum program.

Determination of the amount of state support was in terms of Mort's key district concept which consisted of selecting the wealthiest school district of adequate size. A school district of adequate size (9,507 pupils) and ranking first in adjusted assessed valuation ($38,469 per pupil) gave the local chargeable rate of $.92 per $100 of taxable property to support the proposed minimum foundation program. This local qualifying rate was applied to the valuation of all other districts in the state; the difference between the cost of the minimum educational program and the yield of the local qualifying rate constituted state support. The use of this uniform local qualifying tax rate for all districts results in local shares directly proportional to the taxpaying ability of local districts and state shares which are inversely proportional.

The local and state share of the proposed minimum foundation program was determined for the 243 school districts comprising this study: $260,010,-721 state; $81,904,831 local.

The proposed minimum foundation program of $352 per-pupil allowance for instructional purposes was more realistic in terms of guaranteeing a minimum educational program based on current costs.

The level of the foundation program is as equally important as the method of distribution. Even though the state share of a foundation program may be distributed in inverse proportion to the district's taxpaying ability, little equalization results if the level of the foundation program is unrealistic.

Conclusions

1. Since the current foundation program was found to be unrealistic, a new distribution formula is necessary.
2. The foundation program should establish a higher per-pupil allowance and should provide a distribution of state funds inversely proportionate to the district's adjusted assessed valuation.
3. A suggested formula provided a per-pupil allowance of $352 and a local chargeable rate of $.92 per $100 of adjusted assessed valuation based on 1966-67 expenditures.

Recommendations

1. The state legislature should consider the adoption of a formula as suggested or modify it so that the current available data can be utilized in the future.
2. Since the wealth of districts, the cost of instruction, and the number of pupils to be educated constantly changes, provisions should be made to alter the per-pupil allowance and the local qualifying rate in accordance with the method used in this study prior to the appropriation of state support funds for each biennium.

Effects of Matching in Federal Aids on Selected Indiana School Districts

Alex C. Moody

TECHNOLOGICAL advancements, along with other social changes in the United States, have produced a society with an increased demand for education and skill. Such resultant factors as industrialization and population migration have been oblivious to geographic boundaries or geographic location. The Committee for Economic Development has advanced the argument that states and localities can no longer finance, on an equitable basis, the increase in educational expenditures that the national interest and welfare of the population demand from these sources.[1]

Burkhead reported educational achievement to be interrelated with the economic and civic progress of a geographic area.[2] Because of high population mobility, social and economic benefits from education cannot accrued to a limited geographic area or state. Thus, the matter of providing equal educational opportunity for all youth has become of increased concern to educators, legislators, and citizens.

The federal government has undertaken an active role in the finance of local educational programs during the past decade; however, the role of the federal government in these programs never has been established clearly. Federal participation in the finance of local educational programs has been directed toward specific national needs or interests which were thought to be lagging. Such aid usually has been categorical in nature and often contained provisions whereby the recipient of the aid was required to match the amount of the federal funds in order to receive the federal aid. The intent of these federal programs has been to improve the educational opportunity for youth of the nation; however, aid has been limited to subject areas vital to national interest or welfare.

Statement of the Problem

To test the commonly accepted theories regarding the effect of categorical federal aid program with matching provisions on local educational finance, this research was designed to investigate the apparent influence on school corporations in

[1] Committee for Economic Development. *Paying for Better Public Schools.* New York: the Committee, 1959. p. 31.

[2] Burkhead, Jesse. *Public School Finance: Economics and Politics.* Syracuse: Syracuse University Press, 1964. p. 267-71.

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Indiana of such fiscal output as adequacy, equity, and stimulation. Preliminary studies were undertaken to ascertain whether there were differences in expenditure levels for selected programs and organizational patterns between school corporations that participated in categorical federal aid programs and those that elected not to participate (nonparticipants).

The following three general questions were asked:

1. Is there a difference in adequacy as measured by per-pupil expenditures for instructional apparatus and equipment between participant and nonparticipant school corporations?

2. Is there a difference in per-pupil funds received from a categorical federal aid program with matching provisions among participants?

3. Is there a difference in fiscal stimulation between participants and nonparticipants as reflected in the I-3 Budget Account, which includes expenditures for instructional material and equipment? The I-3 Account, used for many years in Indiana, somewhat corresponds to the 1230-c Account described in the universal accounting system.[3]

Each of the three questions was asked by four organizational characteristics: participation or nonparticipation, school corporation size (ADA), school corporation wealth, population, and geographic location.

Design of the Study and Methodology

Indiana school corporations participating in Title III of the National Defense Education Act comprised the sample of participants. Nonparticipant Indiana school corporations served as a control group.

Since Indiana school corporations must include the amount of funds expected through participation in the Title III program when preparing their budgets, the I-3 Account reflected a major portion of the expenditures encumbered for the federal program. By using the summary data for a budget year, the exact amount of federal funds and the total expenditures in the I-3 Account were determined. Thus, the data consisted of Title III expenditures and expenditures in the I-3 Account for all school corporations in Indiana for 1965-66.

Only that part of Title III requiring matching funds of local school corporations was included in the study. No attempt was made to study funds used to improve the supervisory aspects of the State Department of Public Instruction or the funds spent for remodeling projects during 1965-66.

A total of 355 school corporations in Indiana were included in the study; 29 were not included because no funds were spent in the I-3 Account; 59 were deleted from the study because of school reorganization or other inconsistency in data.

Data were obtained from the Indiana Department of Public Instruction; school corporation budgetary data, from the Division of School Finance; and Title III data, from the Federal Project Division. The 1965-66 school year was selected because Title III personnel believed that year was most representative of Title III projects in Indiana. The Title III program had been expanded to include nine subject areas, and all funds allocated by the federal government were

[3] U.S. Department of Health, Education, and Welfare, Office of Education. *Financial Accounting for Local and State School Systems.* Bulletin 1957, No. 4. Washington, D.C.: Government Printing Office, 1957. p. 93-94.

obligated by local school corporations during the 1965-66 academic year. Eleven remodeling of facilities projects were approved by the Title III office during the year selected for the study, but since these funds did not appear in the I-3 Account, they were removed from the allocations to local school corporations.

All expenditure data used in the study were based on a per-pupil in ADA basis.

Certain assumptions were made to provide a basis and direction for the study as follows:

1. The I-3 Account reflected a major portion of expenditures for equipment and instructional apparatus as allocated by Title III.
2. A majority of school corporations anticipated the use of Title III funds and made provisions for the receipt of these funds when determining budget allocations.
3. Indiana school corporations logically can be stratified into discrete categories for the variables of size, wealth, population make-up, and geographic location.

Factor A was the dependent variable: participation or nonparticipation.

a_1—Participation
a_2—Nonparticipation

The independent variables were: School corporation size (ADA), Factor B:

b_1—Large—2,000 and over
b_2—Medium—1,000 to 1,999
b_3—Small—999 and under

School corporation wealth (adjusted assessed valuation per pupil ADA), Factor C:

c_1—High—$9,500 and over
c_2—Medium—$7,000 to $9,499
c_3—Low—$6,999 and under

Population (1960 Census), Factor D:

d_1—Rural—over half of population
d_2—Urban—over half of population

Geographic location, Factor E:

e_1—Northern region
e_2—Central region
e_3—Southern region

The principal techniques employed were the 2-way and 3-way factorial analyses of variance. The data did not lend themselves to designs of a higher order because of small numbers of observations in certain cells. Unequal cell frequencies were adjusted by "unweighted means analysis."

Where significant F ratios were found, differences between means were tested. Profiles were plotted to give additional meaning to the F test results.

A typical experimental design is presented below for I-3 expenditures per ADA:

Participation	*Size classification*		
	b_1	b_2	b_3
a_1	$\overline{AB}_{11}$	$\overline{AB}_{12}$	$\overline{AB}_{13}$
a_2	$\overline{AB}_{21}$	$\overline{AB}_{22}$	$\overline{AB}_{23}$

Similar designs were employed to test each of the independent variables with the dependent variable. This design was employed for tests pertaining to adequacy and stimulation.

Expenditures in the I-3 Account on a per-pupil ADA basis were used to test hypotheses for each set of data.

To test the hypothesis regarding fiscal stimulation between participants and nonparticipants, the I-3 Account amounts were reduced by Title III funds received and compared with the total I-3 Account amounts of nonparticipants.

A three-factor factorial design to test for equity only for participants used Title III funds per pupil received.

Summary of Findings

Questions for which answers were sought were stated in the form of null hypotheses. In instances where significant differences were denoted, the F comparison technique was employed to determine which level of a variable was different.

The first three conclusions relate to expenditures on instructional apparatus and classroom equipment.

1. Participation in a categorical federal aid program did not appear to provide for substantially greater adequacy in terms of comparative dollars expended. Participants, however, tended to spend somewhat greater amounts than did nonparticipants.

2. Population make-up was found to be related to differences in expenditures. Whether participants or not, urban school corporations spent greater amounts than did rural school corporations.

3. Geographic location was related to per-pupil expenditures: (a) School corporations in the northern region spent significantly greater amounts than did school corporations in the central or southern regions. (b) In the northern region participants expended significantly higher amounts than nonparticipants.

4. The principle of equity was found to have been violated among participants. Title III NDEA funds received per pupil did not relate to the factors of wealth and population composition: (a) High-wealth school corporations received significantly more funds than did medium- or low-wealth school corporations. (b) Urban school corporations received significantly more funds than did rural school corporations.

5. Title III NDEA did not appear to serve as a significant source of stimulation for school corporations to spend greater sums of money for instructional apparatus and equipment; however, participants tended to spend somewhat greater amounts than did nonparticipants.

6. The factor of population composition was related to the principle of stimulation: Stimulation was greater for urban school corporations than for rural school corporations.

7. The factor of geographic location was related to stimulation as northern geographically located school corporations were significantly different from all other groups.

Implications

The lack of a clearly established difference in dollar expenditure between participating and noparticipating school corporations warranted speculation as to cause. Funds received from Title III tended to constitute only a small part of the total school budget. Further, the degree of involvement or participation may have varied because some school corporations received greater amounts than others. Thus, a partial explanation for a lack of greater difference might be an amount of federal funds in the school corporation budget insufficient to show a difference. Some difference might exist within each category of stratification. No analysis for difference within categories was made.

Increased awareness of and emphasis on education by the American people also has tended to increase expenditures for education by all school corporations regardless of participation

or nonparticipation. These increases, along with inflationary trends in the economy, in all probability accrued at a faster rate than did increases in federal funds; therefore, federal funds would appear less significant in overall comparisons of per-pupil expenditure by school corporations.

Dollar differences attributed to participation tended to border on statistical significance. A lower level of significance would have yielded a greater number of significant differences. Although this study did not establish clearly a significant difference due to participation, it must be recognized that participation did in fact account for some difference in expenditures for teaching apparatus and equipment.

The significant difference attributed to certain organizational factors tended to suggest that other factors might be confounded with the organizational factors included in this study. For instance, the factor of population composition also might imply the degree of conservatism or liberalism of people in some other composition groups. Similar implication may exist in terms of political orientation, subculture reference groups, and other forces which act upon a community or region. It is possible that additional variables were confounded with the organizational variables of geographic location and population composition.

The fact that high-wealth school corporations received substantially more funds per pupil might tend to imply that these corporations had the personnel and other resources necessary to fill out forms and pursue the procurement of federal funds to a greater extent than did other school corporations. Similar suppositions also might apply to urban school corporations.

Further, several rural school corporations were still experiencing school district reorganization during the time that the data were collected; consequently, changes in administrative structure and organization might have resulted in conditions which did not permit complete utilization of available funds.

The study provided certain implications for federal and state authorities associated with administering the program. The fact that low-wealth and rural school corporations benefited to a lesser degree from the Act suggests a need for further study of equity considerations by legislators as well as by those concerned with the administration of the program.

In conclusion, this study was designed to examine some of the factors most commonly thought to bear upon the problem of categorical federal aid with matching provisions. The following recommendations are suggested for further research:

1. A study should be conducted to determine the relationship between organizational factors and other parts of the school corporation budget irrespective of participation or nonparticipation in a categorical federal aid program.

2. Further study should be undertaken with school corporations of other states to determine whether similar relationships exist between organizational factors.

3. A study should be conducted to examine differences between school corporations at various levels of stratification to determine whether inequities can be more specifically categorized.

4. Studies should be conducted to examine the federal allocation of funds by other federal aid programs to local school corporations.

5. A study should be conducted to determine relationships which might exist between other federal programs and organizational variables.

6. A study should be conducted to ascertain whether participating in a categorical federal aid program diverts significant funds from other programs which are not supported by federal funds.

Allocating Financial Resources by Using Legal Program Descriptions

Donald M. Wickert

THE SCHOOL DISTRICT has emerged as a complex organization with multiple objectives, programs, and activities. The program budget has been proposed as a means for apportioning financial resources among the school organization's many activities and programs so as to obtain the greatest progress toward achieving stated objectives. In view of the controls imposed upon schools by the state, a delineation of the extent to which legal prescriptions will restrict or facilitate the allocation of funds in the program budget is needed. This was the purpose of the investigation.

Because a review of the literature revealed a variety of concepts regarding the program budget, it was necessary to establish a point of view regarding such elements as objectives, activities, subprograms, programs, and evaluations. These were the guide lines and principles utilized to establish a program budget:

1. *The major objectives of the school organization should be defined in pupil behavioral terms.* To facilitate evaluation, objectives need to describe minimum level of achievement desired, types and number of children involved, behavior to be accepted as evidence of progress, beginning behavioral status of pupils, and conditions under which evidence is to be gathered.

2. The major objectives are supported by a variety of subobjectives which describe both instructional and noninstructional activities. *Subobjectives need to be stated to include a description of what is to be done, and the expected level of output.* The capacity for making evaluations of subobjectives depends upon the degree to which they are clearly defined.

3. *Human and physical resources as well as contract services need to be organized and clustered according to their contribution to specific subobjectives.* These clusters of information are subprograms. In turn, subprograms need to be organized and clustered according to their contribution to specific major objectives or other subprograms.

4. *A cluster of information which includes major objectives and supporting subprograms is recognized as a program.*

5. *Proposed expenditures need to be established by costing the human*

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and physical resources as well as contracted services. Where one of these elements contributes to more than one subprogram, a division needs to be made by an appropriate factor conveying the extent of the contribution. For example, the salary of a custodian spending two hours cleaning classrooms and six hours maintaining administrative offices might be appropriately allocated by a ratio based upon time. This same principle applies if a subprogram contributes to two or more other subprograms or programs.

6. The district's decision-making potential is restricted by the state when it prescribes a level of performance for expenditure. *Therefore, state prescribed activities and expenditures make certain subprograms and programs mandatory while that which is subject to district decision making needs to be recognized as permissive.*

7. *State funding data need to be included in a program budget if it has an impact upon the decision-making potential of the district.*

A budget format was developed by organizing legal prescriptions found in the *California Education Code* and *California Administrative Code* according to the established guide lines and principles. Contents were confined to legal prescriptions in effect on or before September 11, 1967. This was necessary to avoid the continual changes made by the state legislature and the board of education in the educational program.

To develop an understanding of expenditure characteristics, the present budget of the Centralia School District, California, was converted to the established program budget format. This was accomplished by analyzing each line item in terms of its basic contribution to the state-prescribed subprograms and assigning it to the program budget accordingly.

The established design and budget data resulted in a budget format illustrated in the excerpt below:

REMEDIAL SPEECH AND HARD OF HEARING CLASSES

1. Special Data

Personnel: special certification is required.
Alternatives: district may contract with the county superintendent of schools or another district.
Program: children may be admitted at age 3.
Class size: one teacher shall not instruct more than 90 pupils in any one week.
Teacher assistance: teachers may take special courses to be reimbursed by the state at $50 per unit.

2. Activities

District shall provide a program designed to correct speech disorders.

MANDATORY

3. Direct Expenditures

	Established	Discretionary
Teachers	$29,153	
Supplies		$250
Teacher conferences		275
4. Applied Expense of Supporting Subprograms		
Administration (dollar value of salaries)	$ 2,009	$2,444
Custodial (square footage)	96	368
Maintenance (square footage)	6	160
General curriculum (Number of teachers)	189	3,496
Total	$31,453	$6,993

It should be noted that the illustration is a mandatory subprogram, one that is required by the state. Expenditures identified as "established" are those over which the district has limited control because of various statutes. For example, the $29,153 figure for teachers cannot be greatly changed because certification requirements create a limited supply of qualified personnel who must be enticed to serve by providing a competitive

salary. Also, class size limits prevent one or several teachers from shouldering the whole load to save money. Expenditures that were placed in the "discretionary" column appeared to be completely subject to the decision-making process of the district.

The subprogram used in the illustration included an appropriate allocation from other subprograms that appeared to be supportive. The factor upon which the allocation was made appears in the parentheses following each item listed in the applied expense category. The total cost estimated for the remedial speech and hard of hearing classes was allocated in turn to other subprograms.

To conclude the study, the contents of the entire budget, including the legal prescriptions and expenditure allocations, were analyzed and evaluated to determine the impact of legal prescriptions upon the use of a program budget.

Conclusions

It appears that the use of a program budget is a cooperative venture between the state and the local district. A balance of power exists. The local district is in a position to define objectives and to make appropriate evaluations while the state controls the subprograms and the activities to be engaged in. The local district can exercise power over the use of most noninstructional personnel and almost all physical resources, but the state establishes the minimum expenditures for classroom teachers. These factors in more specific detail are as follows:

1. The district appears to be relatively free to make evaluations needed to determine the contributions of the expenditures proposed for the various subprograms, activities, and human and physical resources to the achievement of the objectives.

2. Objectives defined in pupil behavioral terms have generally not been established by the state. It appears that the district can establish these objectives, providing they can be achieved through state-defined activities and resources.

3. There are 17 mandatory legal subprograms to be used in achieving established objectives:

Administration
Custodial and Other Operations
Maintenance
General Curriculum
Child Welfare and Attendance
Guidance and Mental Health
Pupil Health
Lunch
Remedial and Speech and Hard of Hearing Classes
Kindergarten
Grades One through Three for Regular Pupils
Grades One through Three for Physically Handicapped pupils
Grades Four through Six for Regular Pupils
Grades Four through Six for Physically Handicapped pupils
Educable Mentally Retarded Classes
Severely Mentally Retarded Classes
Integrated Physically Handicapped Classes

4. There is some evidence that districts expend the largest portion, 80 percent, of their financial resources for mandatory subprograms. There is further indication that about 60 percent of these expenditures cannot be effectively decreased by the district because of certain state prescriptions.

5. There are 16 permissive legal subprograms which may be used in achieving the established objectives

and an additional three designed to achieve larger societal objectives:

EDUCATIONAL

Library
Transportation
Outdoor Science, Conservation, and Forestry
Education in the Home
Special Classes—Part-Time
Mentally Gifted Classes—Part-Time
Learning Disability Classes
Remedial Physical Education Classes
Classes for Home Bound Pupils
Summer School
Remedial Reading for Grades One through Three
Grades One through Three for Educationally Handicapped Pupils
Grades One through Three for Mentally Gifted Pupils
Grades Four through Six for Educationally Handicapped Pupils
Grades Four through Six for Mentally Gifted Pupils
Special Classes—Full-Time

SOCIETAL

Community Activities
Community Recreation
Children's Centers

6. The state exerts pressure upon the district to select permissive subprograms by offering certain financial incentives. This applies to all except Library; Outdoor Science, Conservation, and Forestry; Education in the Home; Special Classes—Part-Time; Special Classes—Full-Time; Community Activities, and Community Recreation.

7. There is some evidence that districts experience greater control over the major share of expenditures made within permissive subprograms because of fewer state prescriptions regulating expenditures.

8. It appears that the state exerts control over the majority of direct expenditures made in subprograms designed to involve children in full-time or supplementary learning activities while the district has greater opportunity to control the major share of direct expenditures in noninstructional subprograms.

9. A real element in the design of a subprogram involves the determination of the support to be contributed from other subprograms. For example, the decision to establish a library includes consideration of additional expenditures for administration and other supporting subprograms. This seems to be totally within the realm of the district's responsibility since the state does not generally determine the nature or degree of support of one subprogram for another.

10. In utilizing the system of legal subprograms, it appears that the district has the following options:

a. Reorganizing and merging certain subprograms to suit the district's own objectives and purposes. The loss of special financial incentives limits the reorganization potential of most subprograms designed to handle the handicapped child.

b. Contracting for certain subprograms in part or *in toto*.

c. Establishing special subprograms in cooperation with the country superintendent of schools for pupils not making adequate progress toward established objectives.

11. The activities to be engaged in by the district have been established by the state, but the need to provide interpretation appears to be the district's operational latitude to integrate its objectives and activities into the state's plan.

12. It appears that the district has broad authorization to obtain all physical and material resources necessary to achieve objectives, but the state effectively directs 60 percent of the

current expense of education into salaries for teachers; the district has considerable discretion in the allocation of the remaining expenditures.

13. While the codes include many data that can be used in the establishment of the program budget, it is quite apparent that certain areas of information cannot be included in legal codes. To supplement code data, the district needs a complete inventory of pupil and community characteristics for use in establishing objectives and assessing progress made toward the achievement of objectives. Also, the district needs work loads and schedules for the various subprograms, activities, and resources as related to the progress made toward the achievement of objectives although certain minimum state standards dealing with such areas as pupil-teacher ratio need to be recognized.

Recommendations

This study identified several areas open to the district when structuring a program budget. They include establishing objectives and making appropriate evaluation including the gathering of relevant information on pupils and community, measuring progress made toward the achievement of objectives, and establishing work loads and schedules. These aspects are in need of continual and extended investigation.

One of the major purposes of a program budget is to direct the financial resources of an organization so that it will make the greatest progress toward the achievement of the defined objectives. In this study, there is some indication that the legal constraints imposed upon the operation of the school organization by the state may prevent these benefits from accruing to the district, either in whole or in part. This aspect needs to be carefully tested through actual use of the program budget in school management. Unless improvement in achieving goals is experienced, it may be difficult to justify the additional work necessary in establishing and utilizing a program budget.

An investigation is needed to determine the potential of the program budget in a school environment unhampered by legal constraints. The use of the program budget may be an effective substitute for certain legal prescriptions. Specifically, if the program budget can actually assist districts in achieving objectives, state prescriptions may not be necessary. Through the district's use of a program budget the state could shift emphasis away from establishing activities and subprograms and toward assisting districts in determining realistic and purposeful objectives. Then, state support could be based upon the nature of the objectives and the district's capability of achieving them. An investigation of this type would have to be conducted in cooperation with the state.

Determination of the Need for Intra-County Equalization in Tennessee

Edward E. Williams

THE MAIN OBJECTIVE of the study was to determine the need for intra-county equalization in Tennessee. It was treated under the following four subproblems: (a) the relative pupil load of the school districts, (b) the relative ability of the school districts to support education at the local level, (c) the relative effort of school districts to support education at the local level, and (d) the effect of the allocation of state funds on equalization between school districts within the same county.

All county school systems in Tennessee within whose boundaries one or more city school systems were operated during the 1965-66 school year were selected for the study. There were 31 county school systems in which 39 city school districts operated. The 70 systems were spread throughout the state, with the largest number, 39, being in East Tennessee, 12 in Middle Tennessee, and 18 in West Tennessee. The city districts ranged in size from Memphis with an average daily attendance in 1965-66 of 113,533 to Trimble which had an average daily attendance of 335.

The following basic assumptions were recognized:

1. Equalization of educational opportunity is desirable.
2. Current expenditures per pupil in average daily attendance (ADA) and per weighted expenditure pupil unit (EPU) are reasonable measures of educational opportunity.
3. The true value of property is a satisfactory criterion for determining the ability of local governments to finance education, and can be ascertained to a reasonable degree.

ADA and EPU were used as measures of the relative pupil load of the school systems. ADA has been the most commonly accepted statistic of pupil load. It is used in Tennessee as the basis for the allocation of teaching positions in the Minimum Foundation School Program, for the allocation of transportation funds, for the allocation of maintenance and operation funds, for the allocation of textbook funds, for the division of proceeds from bond issues, and for virtually every aspect of educational program in Tennessee.

The EPU is a less familiar statistic, designed to take into account the

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higher cost of educating high-school students as compared with that of educating elementary-school pupils.[1] EPU makes it possible to compare costs in different areas and localities in a more refined manner. The EPU weights of the various districts were computed by multiplying high-school ADA by 1.3 and elementary ADA by 1.0. Local school district classification was used to determine elementary grades. Junior high-school pupils were considered as high-school ADA.

Because of the higher cost of operating the very small school districts, a "sparsity" correction formula developed by Mort was applied.

To determine the relative ability of the school districts to support education at the local level, a comparison was made of the estimated true value of property per pupil in ADA and EPU, the assessed value of taxable property was compared with the estimated true value of property; in addition, a comparison was made of local revenue receipts and effective tax rates. The amount required as each system's share of the Tennessee Minimum Foundation School Program was determined and compared with what its share would have been if those funds had been allocated on the basis of estimated true value of taxable property.

If a school system with ability to support education is not making an adequate effort to do so, a program of quality of education is not likely to be accessible to the pupils in that district. The following measures determine the relative effort that school districts were making to support education at the local level:

1. The relationship of school expenditures to other governmental expenditures
2. The relation of the required contribution to the Minimum Foundation Program to local revenues.
3. The percent that local school revenues were of the total estimated value of taxable property.

Tennessee's minimum foundation school funds are allocated to individual school systems. However, the local share required to be raised by a school district is determined by an Economic Index for the County, which indicates the percentages of a state total to be raised locally. The local county share is further apportioned between a city and county school system by each system's percentage of ADA in the county. Local revenue from the county-wide property tax and county sales tax for schools, unless provided otherwise in the case of the sales tax by agreement between the city and county, is also apportioned between city and county on the basis of percentage of total ADA.

If the cost for educating a high-school student is greater than that for educating an elementary-school pupil, the school system operating only elementary schools has some advantage in the allocation of funds as compared with one operating both elementary and high schools.

If there are variations in the resources available to school districts located in the same county for the support of education at the local level, inequities in the allocation of state funds would exist. To examine the allocation of these funds and the possible effect upon revenues available to individual school districts located within the counties studied, comparison was made of each system's share of the Minimum Foundation School

[1] School Management. "The Cost of Education." *School Management* 22:68; January 1968.

Program with what its share would have been if it had been determined on the basis of its percentage of estimated true value of property.

The following conclusions were drawn from the study:

1. In some instances, an imbalance in the per-pupil tax load existed between school systems located within the same county in Tennessee.

2. Very large differences exist in the local ability of school districts within the same county to support education.

3. Conspicuous differences exist among school districts in the relative effort made to support education.

4. The procedure used to determine each district's required local contribution to the Minimum Foundation School Program was contrary to the concept of equalization. In view of the demonstrated differences in ability of school systems within the same county to support education, existing procedures for allocating a local school system's required contribution to the Minimum Foundation School Program tended to increase differences in ability. On the basis of the findings of this study it is recommended that:

1. Consideration be given to an adjustment of pupil load in the allocation of state and local funds to individual school districts.

2. An attempt be made to find a means of allocating each system's required contribution to the Minimum Foundation School Program on the basis of its ability to support education, rather than on the basis of its percentage of ADA.

3. In the event a state-wide property reassessment program is carried out in Tennessee, and properties are assessed on a reasonably equal basis, the property value assessment be given consideration as a basis for determining the required local contribution to the Minimum Foundation School Program, and each system's taxpaying ability be used rather than taxpaying ability by county unit.

These recommendations tend to focus attention on the importance of developing all our human potential. The problems facing our nation and the world are many, and they are becoming increasingly complex. If the person who might have discovered a cure for cancer or might have found a solution to some of our world problems spent his life plowing cotton or cutting pulp wood simply because his potential was not developed, we are paying the price for this failure today. Our civilization is losing every day because of past failures to develop to the highest extent possible the human potential which exists in the world. So long as we continue to emphasize short-term, individualized gains as a primary motive for promoting free education, we shall continue to lose and so will future generations.

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