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ABSTRACT
         This document contains papers on: (1) proposals for
national foundation programs; (2) state support of education; (3) tax
reform at Federal, state, and local levels; and (4) contemporary
problems in school finance, including equal educational opportunity,
urban school finance, grants-in-aid, Federal income tax rebates to
the States, voter behavior in school bond and tax elections in Ohio,
and trends in State support of public school capital outlay. Also
included are short summaries of award-winning research projects in
school finance. A roster of conference participants is appended. (JLF)

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A Time for Priorities:

Financing the Schools

for the 70's

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NEA COMMITTEE ON EDUCATIONAL FINANCE

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Proceedings of the 13th National Conference on School Finance

April 5, 6, and 7, 1970

Sheraton-Palace Hotel

San Francisco, California

Sponsored by the

1

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National Education Association

Contents

Foreword

THE COMMITTEE ON EDUCATIONAL FINANCE of the National Education Association sponsors annual National Conferences on School Finance to bring together scholars and practitioners in school finance to report on problems and trends in financing American education and to discuss significant research findings. *A Time for Priorities, Financing the Schools for the '70's* is the theme of the 13th conference in this series.

This year, as in previous years, individuals with various perspectives and interests participated. More than 200 persons from local school systems, state education departments, state legislatures, universities, federal government offices, including the U. S. Office of Education, and the united professional organization attended the conference. The conferees came to San Francisco at a time when the Administration was curtailing federal education programs and calling for a critical examination of educational expenditures. Many local school bond and tax referendums were being rejected by tax resistant voters in various states. Many taxpayers had become weary of keeping revenues at levels sufficient to cope with increasing enrollments and improved effectiveness. Meanwhile, others were pushing for more services by schools, i.e., special efforts in the inner cities, special efforts to reach the handicapped, greater equality of educational opportunity, and other additions and changes to existing systems of doing things, most of which involved higher costs. Caught in this squeeze between the tightening of the purse strings and pressure to do more and better things, the school systems of the country were facing financial difficulties that many were describing as critical.

These proceedings include a separate section on awards for school finance research. The three papers were selected on the basis of the need for the research on the topic, the research design, the size of the task undertaken and completed, and the research talent demonstrated. The judges were Glen Robinson, Director, NEA Research Division; William P. McLure, Director, Bureau of Educational Research, College of Education, University of Illinois, Urbana, Illinois; and Eugene P. McLoone, Associate Professor, University of Maryland.

The viewpoints expressed in the papers which comprise the proceedings are those of the individual authors and do not necessarily reflect the views of the National Education Association or the Committee on Educational Finance.

The Committee extends its appreciation to the NEA Research Division who organized the conference and prepared the proceedings for publication: Jean M. Flanigan, Assistant Director and NEA Staff

Greetings from the National Education Association

Donald E. Morrison
Member, Executive Committee

ON BEHALF OF President George D. Fischer, I welcome you to the 13th National Conference on School Finance.

This Conference is one activity through which the National Education Association expresses its concerns in school finance. These concerns are three-fold:

- The adequacy of the money to pay salaries and to finance a good school program
- The distribution of funds—federal, state, and local—to assure that every pupil has an equal opportunity for a good education
- The equity of the tax systems for taxpayers who support the schools.

This Conference is a scholarly and deliberative part of the total NEA program in school finance. I am impressed by the array of experts assembled here to speak, to listen, and to participate in the development of good practice in raising, distributing, and spending funds to support education.

Other school finance activities of the NEA and its affiliates are less passive and, therefore, command a better press. At every level of government, teachers are confronting officials for action in improving school support. In some cities and states they are demonstrating, marching, and striking. They are speaking out in every conceivable manner.

Our schools are as good as they are because teachers are willing to raise their own dues to pay for and to work for improved school support.

I have one caution for research workers in instruction and administration as well as school finance. Many great research findings are lying on the shelf unused. Many others are known and used, but only by other researchers. This is largely because the key to change and implementation is ignored. Unless you involve teachers organizations in your project and bring them along with you, your findings, however profound, may quietly pass into oblivion. Therefore, I urge you to involve the teachers organizations in your efforts—and we are providing this forum to start you off.

My best wishes for a successful Conference.

Goals for the Seventies in Financing American Education

Hugh Calkins

TEN YEARS AGO this month, a group of prominent Americans assembled in response to a request from President Eisenhower that they "develop a broad outline of coordinated national policies and programs" and "set up a series of goals in various areas of national activities for the decade of the Sixties." The volume they produced, *Goals for Americans*,[1] sold more than 260,000 copies, provoked a good deal of discussion in school and college classrooms, and, in the view of some, helped the Kennedy Administration order its early priorities.

Now we are at the end of the decade. It is time for an accounting. How well have we done? Have we achieved our educational objectives? What should be the goals for the Seventies for this gathering of experts in school finance?

National Goals in the 1960's

The 1960 Commission on National Goals struck the note of challenge which one would expect from such a group. "In the 1960's every American is summoned to extraordinary personal responsibility, sustained effort, and sacrifice."[2] That is a familiar sentiment, which we would echo today; but the reason advanced as the basis for requiring this national commitment has a curiously dated ring:

For the nation is in grave danger, threatened by the rulers of one-third of mankind, for whom the state is everything, the individual significant only as he serves the state. These rulers seek the "peace" of a Communist-oriented world, in which freedom is suppressed and the individual permanently subordinated. Supporting their aim are the Soviet Union's great and swiftly growing strength, the industrial and military progress and potential of Red China, a great capacity for political organization and propaganda, and the specious appeal of Communist doctrine to peoples eager for rapid escape from poverty.

. . . .

Since 1946, foreign rule has ended for more than one billion people in Asia and Africa. Much of their yearning for independence, for respect, and for abundance has been inspired by Western and especially American example. Nevertheless, historic resentments, inadequate economies, inexperience in self-government, and excessive expectations offer fertile ground for Communist persuasion and conquest. This restless tide of events defines the magnitude of our problems and the scope of our opportunity.[3]

Mr. Calkins is Attorney, Jones, Day, Cockley and Reavis; and Chairman, National Advisory Council on Vocational Education.

Spurred by what seemed to the Commission to be these ominous perils from overseas, goals were outlined for every segment of American society. To assist it in the field of education, the Commission counted among its members its Chairman, Henry M. Wriston, formerly President of Brown University, James B. Conant, formerly President of Harvard University and then working on his now famous *Slums and Suburbs*, Clark Kerr, then President of the University of California, and James R. Killian, Jr., Chairman of the Massachusetts Institute of Technology. The Commission engaged the services of John Gardner, President of Carnegie Corporation and the Carnegie Foundation for the Advancement of Teaching, and soon to become Secretary of Health, Education, and Welfare. Between them, the Commission and Gardner outlined a score of objectives, covering the gamut of elementary through higher education.

If success were to be measured simply by the country's progress in achieving the goals which the Commission outlined, it would be impressive. Look at the record:

The Commission stated:

• "Small and inefficient school districts should be consolidated, reducing the total number from 40,000 to about 10,000."[4] Today, we have about 19,000 school districts in the United States, more than the Commission urged, but representing very substantial progress from the 1960 days of 40,000.

• "Every state should have a high-level board of education."[5] Accomplished, as required by the Higher Education Facilities Act of 1963.

• "Two-year colleges should be within commuting distance of most high school graduates."[6] In the 1960's we opened approximately 50 two-year colleges each year; this objective has substantially been met.

• "Annual public and private expenditure for education by 1970 must be approximately $40 billion -double the 1960 figure. It will then be 5 per cent or more of the gross national product, as against less than 4 per cent today."[7] In fact, in 1970, annual public and private expenditure for education is approximately $65 billion, three times the 1960 figure. And this is not merely a phenomenon of inflation, for the $65 billion represents 6 percent, not the proposed 5 percent, of the gross national product.

Gardner stated:

• "During the 1960's...we must recruit at least 200,000 new teachers every year."[8] The objective has been accomplished, and the total number of teachers has risen in the decade by about 50 percent.

• "Teachers' salaries must be raised until they are competitive with salaries in other fields for jobs involving comparable ability and length of training."[9] The goal is not yet accomplished, and there are signs that in recent years the gains which teachers have won are receding, but teachers' salaries are more competitive today than they were a decade ago.

• "We should set as our minimum goal that by 1970 there should be no state in which desegregation is prevented by state action, no state that has not moved to comply with the Court decision on desegregation."[10] In the 1960's, the percentage of black children in the south attending schools held to be in compliance with federal desegregation standards rose to 40 percent.

• "We should be producing 20,000 Ph.D.'s annually by 1970 (compared with 9,360 in 1958-59) without a drop in quality."[11] Last year the United States produced 26,500 Ph.D.'s, and the quality of graduate training has risen, not declined.

These are substantial accomplishments. In 1960 these objectives seemed realistic, but not easy to accomplish. In a world in which even realistic objectives are seldom achieved on schedule, the country's record of performance is one for which it can claim credit.

Equality of Opportunity

However, there is a bleaker side to the picture. There are some objectives stated by the Commission and by Gardner toward which there has been little progress. There are still other objectives which in the light of hindsight it is extraordinary that the Commission and Gardner did not place more squarely before us.

The principal task which has not been accomplished in the 1960's is what I believe to be, and for a century to have been, the most important matter on the American agenda. That is the elimination of inequality of opportunity in the United States. It is paradoxical that a nation which at its founding articulated the principle of equality more eloquently than ever before or since in recorded history should for so long allow inequality to persist in the midst of plenty.

The famous words of the Declaration are familiar to everyone. "That all Men are created equal, that they are endowed by their Creator with certain unalienable rights, that among these are Life, Liberty and the Pursuit of Happiness—That to secure these Rights, Governments are instituted among Men, deriving their just Powers from the Consent of the Governed." The Chairman of the 1960 Goals Commission, Henry Wriston, perceived the central importance of these words. His chapter, "The Individual," started with them, polished them, revered them. Wriston quoted Robert Frost's "The Black Cottage":

> That's a hard mystery of Jefferson's.
> What did he mean? Of course the easy way
> Is to decide it simply isn't true.
> It may not be. I heard a fellow say so.
> But never mind, the Welshman got it planted.
> Where it will trouble us a thousand years.
> Each age will have to reconsider it.[12]

Then, in what surely was one of the first "establishment" pronouncements of our postwar civil rights concerns, he applied the ancient words of the Declaration to the plight of the Negro in the United States.

The right to life. "Yet for a Negro," Wriston said, "life expectancy, at birth, is about 7.5 years less than for a white man. At age 25 the life expectancy of a Negro is still about 5.8 years less than for whites . . . . This startling discrepancy between Negroes and whites is largely caused by inferior education, poorer living conditions, inadequate dental, medical and surgical attention. Those deficiencies are the direct consequence of curtailment of 'unalienable rights'."[13]

The right to liberty. "The Department of Labor," Wriston stated, "lists over five thousand skilled and professional occupations. Most are effectively closed to Negroes."[14]

The pursuit of happiness. "The loss in human satisfactions," Wriston said, "runs far deeper than the economic; it is beyond calculation." He continued:

When people are denied fulfillment it is trespass upon the unalienable right to pursue happiness, to find, for oneself, the deeper satisfactions of self-realization. . . . Stubborn refusal to move with the times and concede justice long denied will only multiply and magnify dangers, leave needless wounds it will take generations to heal. Those who suffered political disabilities and economic loss, those who were oppressed by carpet-baggers and wavers of the bloody shirt, those whose resentments have survived for more than three-quarters of a century, so that the political party guilty of those excesses is still taboo, ought not to neglect the lesson of their own suffering.

It comes with ill grace to complain that peaceful sit-ins and other non-violent acts violate piddling city ordinances and state laws cunningly devised to condemn or raise to inferior status and deny it equality. . . .

The price of massive resistance to law is not visited alone upon those who promote it. By reason of the high mobility of Americans, it has become a national problem. . . . [Negroes] tend to be crowded together in cities; thus they form a clot in the blood stream of the body politic.[15]

These are strong and prophetic words. It is extraordinary that the Commission failed to heed them in identifying the principal danger the country faced in the 1960's. I do not recall that Chairman Wriston's warnings were contested by the Commission; rather, they simply were not heard. They were ignored by men (and I must include myself) whose vision was fixed on far off perils which have proved far less forbidding than was feared, and who preferred not to acknowledge the reality of the dangers, and the sins, which were close at hand.

Our failure to provide equal educational opportunity in this country is plain for all to see. Our failure extends beyond the Negro to include the Mexican-American, the Puerto Rican, the Indian, and the poor of every color and nationality. Children of these groups, in neighborhoods of these groups, too often learn tragically less than they need to know in order to enjoy the benefits of life in a technological world.

As reported by the federal Task Force on Urban Education: "The average Negro core student in the Northeast is 5.2 grade levels behind his white suburban counterpart in math by the twelfth grade, 2.0 grade levels behind in reading, and 3.3 grade levels behind in verbal ability. Figures are similar in the Midwest and worse in the far West."[16]

In city after city, the Task Force's findings are borne out. In 1966-67, children in District 9 of Chicago's inner-city Loop read at a 4.6 grade level in the sixth grade and at a 5.9 grade level in eighth grade. While children in the exclusive North Shore District 2 reveal an average reading level of 8.3 in sixth grade and 10.2 in eighth grade. In Atlanta, sixth-graders in the city read at a median level of 4.3 and in surrounding suburban Fulton County, they read at a 6.9 grade level. This is a differential of 2.6.

Pupils who are failed by the educational system are leaving the public schools in alarmingly large numbers. In his 1965 Special Message to the Congress, "Toward Full Educational Opportunity," President Johnson noted

11

that: "In our 15 largest cities, 60 percent of the tenth-grade students from poverty neighborhoods drop out before finishing high school." In 1967, approximately 65 percent of all black and Puerto Rican students in New York City left school before graduation. But the problem is not only in the cities, for according to the Texas Education Agency, 60 percent of the approximately 100,000 Mexican-American first-grade children entering the system each year will have dropped out of school permanently before elementary school graduation.

School failure is not solely due to inadequate school finance, as the Coleman Report has shown; but there is an approximate correlation between the crisis of school failure and the crisis of school finance. Schools in the inner city, schools in the suburban poverty enclave, schools in Appalachia and along the Rio Grande, wherever the failure rate is high, there also one is likely to find the system in financial crisis.

Class size is larger: In Cleveland, there are 43 professionals per 1,000, while in its suburbs on the average there are 50 per 1,000.

Buildings are older: In Detroit in 1968, 30 buildings dedicated during the administration of President Grant were still in use.

Buildings are overcrowded: in Washington, D. C. the elementary school system operated near the end of the 1960's at 115 percent of capacity.

Student-teacher ratio is higher: In Los Angeles the ratio in 1968 was 30 to 1, as compared with a national average of 23 to 1.

Teachers are less experienced: In Chicago, New York, and other cities where length of service gives a teacher the right to select his school, the experience of the teachers is proportionate to the income level of the children's families. In Washington, D. C., in the middle of the decade in the schools where more than 80 percent of the pupils were black and poor, 48 percent of the staff had only temporary certificates.

The list of services that schools in financial crisis cannot provide their students is long. Solving the financial crisis of schools that fail may not by itself cause them to succeed; yet, until these schools have a solid fiscal base, it is unrealistic to expect that they will be able to overcome the educational crisis which confronts them.

Goals for the 1970's

As we prepare our goals for the 1970's let us resolve to give more heed to the fundamentals than we did in the 1960's. The overriding problem in American education is to develop a means by which the 20 percent of our population who are excluded from the main stream of American life acquire the educational level they must have to enter the stream. Tha requires many things, one of which is money. The overriding objective in school finance must be to turn it around so that instead of obstructing that objective as it does at present, it will assist in achieving it. To accomplish that turn-around, we need to set, not a score of objectives, but a four-point priority agenda.

Equity

The first objective is to restore equity to our school foundation laws. Forty-five years ago Strayer and Haig devised the first foundation formulas so

that the burden of school support would "bear upon the people in all localities at the same rate in relation to their tax-paying abilities." Today, changes in society have made the old formulas productive, not of equality, but of the rankest inequality.

Inequity in state school finance arises, first, from our persistent failure to recognize that education represents only a part of the cost of local government. In Philadelphia, which is typical of most old large cities, police, fire, sanitation, and other urban services consume 70 percent of revenues, while in the Philadelphia suburbs those services require only 40 percent of revenues. School foundation laws typically determine "wealth" on the basis of property tax base per pupil, without adjusting for this municipal overburden. This made sense 40 years ago when tax base per pupil was much higher in the cities than elsewhere; it is grossly unfair today in cities where the tax base has been eroded so that it is no higher than in the surrounding communities. The contrast between the suburb of Weston, with a total local tax rate of 43 mills and a per pupil expenditure of $956, and Boston, with a total local tax rate of 144 mills and a per pupil expenditure of $655, is enough to make Strayer and Haig rise from their graves in indignation. Pennsylvania, Michigan, and New York have devised adjustments which take municipal overburden into account. Their example should be followed in all older industrialized states.

The second inequity in state school finance arises from our tolerance of tax havens. In the Gorman school district in Los Angeles County the tax base per pupil is about 40 times as large as in nearby Hudson and Compton. California allows Gorman to exploit its tax base to produce, with state aid, $2,089 for each pupil who lives there, while in the poorer nearby districts state and local taxes produce less than $560 per pupil. School finance experts have long recommended that the property tax be collected state-wide; it is inexcusable to ignore those recommendations any longer.

The third step toward equity is to equalize valuations. In Michigan the range of assessed to market value is from 10 percent to 50 percent. In such a state of affairs is it any wonder that Michigan children do not have equal educational opportunity? Wisconsin, Maryland, and Florida have equalization formulas which work and should be adopted universally.

The final major inequity in foundation laws is that in all but four states, the school foundation laws provide state financial assistance to poor school districts only up to the minimum level of education established by the state. For example, in a poor school district in Ohio, it costs about $50 per family to increase teachers' salaries $1,000, while in the average school district in that state, the same increase of $1,000 can be provided by an average tax contribution of $25 per family. If Ohio wants to achieve equal educational opportunity for all and to encourage local effort in school support, it should promptly follow the handful of progressive states in which local effort above the minimum is matched by state support under an equalizing formula.

There is no excuse, except the difficulty of overcoming political self-centeredness, for our continued delay in reforming school foundation laws.

13

Sharing Higher Costs

The second cornerstone to developing a rational system of school finance in the 1970's is to adopt a sensible philosophy of broad categorical grants. Different kinds of education cost different amounts of money. It costs more to provide adequate education for a child who is blind, deaf, or seriously emotionally disturbed. It costs more to teach most forms of vocational education, because of the equipment, counseling, and placement costs, and the smaller class sizes which often are necessary. It costs more to teach reading to children who do not practice reading at home. It costs more to attract the attention of children who are not verbally oriented, and who have been defeated by a succession of school failures.

Local governments are well designed politically to provide for all children comparable services of equivalent expense. They are not well designed to provide for all children the diverse services of differing expense levels which the different needs of children require. Popularly elected governments at the local level are under great pressures for uniformity. Where resources are in short supply, the allocation of the same amount to every child is a position easy to defend. In contrast, to spend on some children with special need more dollars than on the average child is not easy to justify to the voter.

Champions of local decision-making, therefore, should welcome and not fight the efforts of state and federal governments to subsidize the additional costs of those forms of education which cost more than the average. Such subsidies do not restrict the discretion at the local level; they enhance it, because their effect is to equalize the local per pupil cost of meeting each child's diverse needs. A school district in which the local cost of vocational education or education of the handicapped and college prepara-tory education is substantially the same is a district in which local administrators have maximum freedom to offer the kind of curriculum the children of their district need most.

Wherever possible, categorical programs should allocate funds on the basis of children with needs, and not on the basis of program. Title I is a much easier model than the Vocational Education Act. Children who are physically or socially handicapped, or who cannot read, can be identified and counted. New methods will allow us to identify them earlier, and more surely. The local expenditures made for their education can be monitored to protect the categorical funds from merely substituting for local funds diverted elsewhere. A subsidy based on the number or concentration of such children can be readily administered without the distortion which arises when a subsidy is based on a program.

Such distortion is prevalent in vocational education today. Although every educator knows that the way to teach reading to nonverbal high school students is in a job-related classroom, few high schools offer such teaching. The reason is bureaucratic convenience. The state subsidizes the vocational class but not the reading; the two cannot be mixed without confusing the accounting.

The sensible philosophy of broad categorical grants which we must adopt in the 1970's will make such distortions a thing of the past. A school

14

district should be allowed a subsidy upon a showing that it is spending more money on a child with a special need and is fulfilling that need. Private accounting and testing firms can be called on to verify the expenditures and the achievement. Separate programming should be discouraged, not required. Such a system would at last give local school systems the freedom, with accountability, to offer vocational education to all who need it, to help the handicapped learn like the normal child, and to help the non-reader learn to read.

National Education Act

The third requirement for school finance reform in the Seventies is the adoption of a federal income tax for education.

One of the most extraordinary political phenomena in the United States in the 1960's has been the different behavior of educators at the local and state level from their behavior at the federal level. At local polling places and in the state house, educators were quick to recognize, and to urge that additional taxation was necessary to provide adequate education. In the past 10 years the results have been impressive. Local taxes for education, which yielded $8 billion in 1960, yield $20.3 billion today. This is an increase from approximately 1.6 percent of the gross national product to approximately 2.2 percent. State taxes for education, which yielded $5.5 billion in 1960, yield $15.6 billion today, an increase from 1.1 percent of the gross national product to 1.6 percent. In the period 1960 to 1969, the state and local tax burden in United States has increased from 8 percent of GNP to 10 percent of GNP, an increase of 25 percent.

At the state and local level, political leaders have been only too glad to have the support of the educators. In state after state and in city after city the tactic has been the same. The increase in tax revenues resulting from the general growth in the tax base was used to finance the police and the fire departments, mental health, economic development, and welfare, while a new tax was proposed to support the growing needs of education. Although in the 1950's no new state, individual, or corporate income or sales taxes were introduced, in the 1960's 28 such new taxes were enacted. At local and state levels, politicians were aware that education is the most popular government service. Using that popularity to overcome understandable resistance to sales and property taxes, state and local governments steadily increased the burden on the taxpayer for the services which he wants and needs.

At the federal level the scene has been different. Three times in the past 10 years the Congress has enjoyed the luxury of a tax cut. Federal tax revenues, as a percent of GNP increased 12-1/2 percent compared with the state and local increase of 25 percent. What other legislature in the United States has done that? What local government can say that about every three years the voters can be given a present of a tax reduction? It is extraordinary that taxpayers, who struggle to pay additional property and sales taxes at the local level, applaud, rather than condemn, the Congress for its consistent reluctance to increase the fairest tax of them all, the federal income tax.

The reason is not hard to find. No one has found a way to relate an increase in federal income taxes to a service which citizens overwhelmingly

want. Instead, the federal income tax is associated in the taxpayer's mind with a whole host of services which he does not want. Those who are opposed to the Vietnam War see the federal income tax as contributing to defense. Those who live on farms see it as devoted to urban renewal. Those who live in cities see it as sustaining a farm subsidy.

What we need is a federal income tax for education. The major achievement of the Eisenhower Administration is said by many to be the federal highway program, in which a user tax on gasoline has funded a spectacular growth in the country's highways. It is as fitting that education be supported by a tax on income as it is that highways be supported by a tax on gasoline. The relationship between education and income is beyond question. The only thing that is remarkable is that for so long we have taxed incomes without allocating a specific part of an increased tax to that national service which most contributes to the development of the income.

What kind of federal program should be supported by a federal education tax? We have learned some hard lessons in the 1960's; and we had better apply them in the 1970's. The first lesson has already been discussed: a federal program for the support of education should contain properly drafted categorical grants under which the federal government will pay a part of the extra costs of the expensive forms of education which some children in our society require. Prominent among these grants should be substantial and growing assistance to disadvantaged children. The $1.2 billion now provided is not substantial, and it is a tragedy that it has not grown in half a decade. Perhaps the additional $1 billion promised by the President for schools "impacted" by segregation will provide some growth.

The second lesson of the 1960's is that we must have an equalizing grant to states whose per-capita or per-pupil income is below the national average. There can be no justification for relying purely on state and local taxes to finance education in a country in which the poor states have about half the per-capita income of the rich.

Third, the experience of the 1960's should teach us a fundamental political truth: A properly designed federal program will offer some financial assistance for the education of the average child in the average community. Politicians seek votes, and voters seek results which will be of personal benefit to them. A good federal program will provide compensatory subsidies for those who need them, a measure of equalization for poor states, and a measure of assistance for all.

A National Education Act, embodying such a program to be enacted in addition to existing federal programs for education, can be enacted by the Congress in 1972. Initially funded at $3 billion and financed by a 4 percent surcharge on individual income taxes paid on incomes up to $15,000 and a 7 percent surcharge on individual income taxes paid on incomes above that level, the Act will not be inflationary. The education lobby, which so nearly succeeded in overcoming a Presidential veto in 1970, can carry a majority in the Congress if those who care about the financing of education will get behind it.

The fourth objective in school finance for the 1970's is that we learn to use competition constructively and fairly.

Those who believe in the principle of competition and seek evidence to support its validity only need to look at the American educational scene. On one side of the landscape, that of higher education and the elementary and secondary education of the more affluent in our society, there is a Monet garden of competitive institutions. Private universities vie with each other and with state universities of growing excellence. Two-year colleges compete with four-year colleges. Illustrious boarding schools vie with private day schools and with high schools in the better financed suburbs. In metropolitan areas the public schools of one affluent suburb compete with those of another affluent suburb for families moving to the metropolitan area. Parochial secondary schools seek the ablest graduates of the parochial elementary school system. Competition is the law of the land in this part of the landscape, and this part of the landscape is generally characterized by excellence and privilege.

The other side of the landscape is largely Hogarth. The elementary and secondary education of the portion of the American population not affluent enough to choose its suburb or move from its rural community is a public monopoly. Low-income families are trapped, sometimes by the color of their skin, sometimes by the limitation of their income, in the schools in the district in which they live. It is in these schools, where there is no effective competition, that educational failure is found.

There is currently mounting interest in education at every level in the use of competition between schools to overcome educational failure. Dr. Edyth Gaines, District Superintendent in the Bronx, operates a warehouse as a voluntary, bilingual school with an unorthodox curriculum, which competes with regularly organized schools. Philadelphia and Chicago operate Parkway programs without school buildings to reach students not drawn to orthodox programs. Cleveland runs a factory which employs (and trains) potential dropouts. Street academies serve New York City. A National Institute of Education which will operate demonstration schools has been proposed. These and a thousand other alternatives within and without the public school system need encouragement and support.

Yet there is a danger. All too often in American life, a device designed to help the disadvantaged turns out to be a technique by which the privileged make more secure the privileges they already enjoy.

Four states have already adopted legislation under which state funds are used to pay the salaries of teachers in parochial and independent schools. Such legislation is said to be justified because, if not enacted, the parochial schools will fail, and the public school system will be overrun with children it cannot handle. The danger of such legislation is that the period today in which state subsidies spread throughout the land will be followed by another in which parochial and independent school enrollment will rise rapidly. We must be careful not to create a school system in which middle- and upper-class children enjoy superior education at a mixture of public and private expense, while children from families in the bottom half of the income spectrum attend public schools of rapidly declining quality.

This is not a fanciful danger. A coalition of liberals who seek competition for the disadvantaged through a voucher system, of conservatives

who believe that untrammeled competition is efficient in education as in business, of white supremacists and black separatists who are determined that their children shall not attend schools with youngsters of another color, and of parents who sincerely believe in the virtues of a religious education can create a political force which can do more to defeat equality of educational opportunity than anything on the American scene since the Supreme Court approved the "separate but equal" rule. Such a coalition will not be defeated by rhetorical appeals to defend the public school system. Public schools are not that popular or admired in this country. Such a coalition will be defeated only by a painstaking demonstration that competition can be achieved where it is needed without an undifferentiated subsidy for parochial and independent education, and by constant reminders that equal subsidies to children of unequal wealth can lead to unequal opportunity.

These are the four cornerstones for school finance reform in the 1970's; reform in the school foundation laws to achieve greater fairness, the adoption of a reasonable philosophy of broad categorical grants, the passage of a self-financed National Education Act, and the constructive and controlled use of competition in education.

In pursuing these four objectives we need one quality above all others. That is the quality of endurance. The 1970's will be no more productive on these difficult issues than the 1960's if our goals and enthusiasms change as rapidly in this decade as they did in the last. No reform in school finance will come quickly; not much that is worthwhile ever comes easily. Let us then set out upon the decade, determined that in this span of 10 years we will keep our eyes fixed upon the individual, that we will make equality of his opportunity our goal, and that we will pursue that goal until it is achieved.

Footnotes

[1] The Report of the President's Commission on National Goals from GOALS FOR AMERICANS, © 1960 by the American Assembly, Columbia University. Reprinted permission of Prentice-Hall, Inc., Englewood Cliffs, N. J.

[2] *Ibid.*, p. 1.   [4] *Ibid.*, p. 7.   [6] *Ibid.*, p. 7.

[3] *Ibid.*, p. 1-2   [5] *Ibid.*, p. 7.   [7] *Ibid.*, p. 7.

[8] John W. Gardner, 'National Goals in Education,' from GOALS FOR AMERICANS, © 1960 by The American Assembly, Columbia University. Reprinted by permission of Prentice-Hall, Inc., Englewood Cliffs, N. J. p. 82.

[9] *Ibid.*   [10] *Ibid.*, p. 84.   [11] *Ibid.*, p. 92.

[12] Frost, Robert. "The Black Cottage." *Complete Poems.* New York: Henry Holt and Co., 1959. p. 75-76.

[13] Henry M. Wriston, 'The Individual,' from GOALS FOR AMERICANS, © 1960 by The American Assembly, Columbia University. Reprinted by permission of Prentice-Hall, Inc., Englewood Cliffs, N. J. p. 43.

[14] *Ibid.*, p. 44.

[15] *Ibid.*, p. 44, 46, 47.

[16] Task Force on Urban Education of the Department of Health, Education and Welfare. "Riles' Report on the President's Task Force on Urban Education." *Congressional Record* 116: E48; January 20, 1970.

Designing School Support Programs
To Meet Emerging Needs

Edgar L. Morphet

THE EVIDENCE SHOWS clearly that man has often been, and continues to
be, a ruthless polluter or destroyer of the environment in which he lives. His
ability to destroy—and even to jeopardize the future of humanity—has been
vastly increased by modern industrial and technological developments. Only
when it has become evident that almost irreparable damage has been done
and our very existence is threatened have substantial numbers of people
become seriously enough concerned to demand prompt and vigorous action.

As long as many people are complacent, too ignorant to understand, or
too greedy to be concerned about the implications or consequences of their
actions, the danger that the damage will continue and that the macrosituation
will further deteriorate is alarmingly grave.

Fortunately, partly as a result of many disturbing and sometimes
calamitous developments, increasing numbers of people have developed some
significant new insights that have important implications for everyone.
Among these are: (a) Some current trends, if continued, will unquestionably
be disastrous for substantial numbers of people and may result in the
destruction of modern civilization as we know it. (b) These trends can be
interrupted and redirected if a significant proportion of the population
decides that they are dangerous or undesirable. (c) To a considerable extent,
people can determine their future by careful and systematic planning
procedures that will enable them to identify and avoid the undesirable
consequences of certain developments and courses of action and to select
other alternatives that will be more beneficial. (d) The extent to which these
planning procedures and choices will be advantageous or beneficial will be
determined largely by the kind and quality of education available to the
people—by whether or not it helps them to develop the ability to analyze and
determine the probable consequences of certain courses of action, identify
the feasible alternatives, and select those that would be most beneficial for
humanity.

In other words, we can, to a great extent, invent and plan our own
future if we are prepared to proceed systematically and cautiously to

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determine what goals and objectives will be of maximum benefit to humanity and to select and implement the most appropriate and effective means of attaining those goals.

The Dangerous Gap

During the past few years there has been much discussion—and many people have become concerned—about the so-called generation gap. To a certain extent, there seems to be such a gap. But there are liberals, radicals, activists, and conservatives in all age groups. The term, therefore, may be an oversimplifying and a confusing way of attempting to identify and describe a situation that exists, and may tend to distract attention from the basic problems.

Harman, in a recent insightful paper,[1] may have helped to redirect our attention to one basic problem: the serious gap between our *professed* or expressed beliefs and values and the way we apply these beliefs and values, the differences between what we say we believe and want and what we actually do as evidenced by the programs that are authorized and the way in which they are implemented.

We say, for example, that we believe in equality of educational opportunity. But do we? What does the record show? We have had, in every part of the country, gross discrimination in many aspects of life—not only by race, sex and social position, but also by economic factors and circumstance—in labor, business, industry, the professions, and even in education.

We say we believe in helping every individual to develop to the maximum of his potential. But the record shows that until recent years we have done little to adapt the educational program to the needs of individuals. Even now, in many schools, the major emphasis continues to be on cognitive learning that is geared primarily to college entrance requirements and expectations. Moreover, we cannot afford to ignore the attitudes and policies of some industries, unions and professions that, in a fundamental sense, are not seriously concerned with the development of people.

We say we believe in equity for taxpayers. How have we implemented that belief? Even in provisions for school support, taxpayers who own property often have to contribute proportionately more than many with higher incomes who do not own property; those in less wealthy districts have to make a greater effort than those in wealthy districts; and in some states, those in districts with higher ratios between the assessed value and the actual value of property pay proportionately more than those in districts with lower ratios.

It seems that one of the crucial problems in this country is to find effective ways of stating (or re-stating) beliefs and values relating to the environment, education, and other aspects of life realistically and meaningfully, and of proceeding promptly to implement these beliefs and values; that is, to reduce to a reasonable minimum the gap between our expressed beliefs and values and what we actually do. Obviously any satisfactory resolution of this problem will require systematic planning, identification of objectives, and the selection and implementation of the most appropriate alternative procedures for attaining them. If all conservatives, liberals, radicals, dissi-

20

dents, and others could agree to direct their energies and efforts to this end, the prospects for meaningful survival would indeed be encouraging. I believe we have the intelligence—and I hope the will—to ensure that this is not merely a utopian dream.

Planning Improvements in Education

Since the provisions made for education and he kind and quality of programs provided can and should have many important implications for the evolving society, it seems essential to give considerable attention to the problems involved in planning improvements in education. In a rapidly changing society, neither established traditions nor present policies and practices will suffice to meet the needs of the future. Both the elementary and secondary schools and institutions of higher learning can retard progress by failing to adapt to emerging needs, or can facilitate progress by anticipating and making a serious effort to meet changing needs.

The process of effecting any significant change is usually slow and often painful and controversial in most educational institutions. Consequently they tend to lag behind current needs and often fail to provide for newly recognized or emerging needs.

But this situation can be and urgently needs to be changed. It has been changed in a number of school systems and in some institutions of higher learning primarily because substantial numbers of educators, students, and lay citizens have identified and studied the problems, agreed on relevant objectives, and proposed defensible programs and procedures for attaining the objectives.

Any change can be harmful or beneficial. Only by careful and systematic planning can harmful or irrelevant changes be reduced to a minimum. In this society, the best and most defensible plans for the improvement of education may be rejected if they are developed by educators or other specialists without consulting or involving the people who will be affected if and when these plans are implemented. The planning process in education, therefore, should involve meaningfully the services and contributions of various kinds of experts and also of educators and lay citizens who may know little about the technicalities and pitfalls of planning, but nevertheless have important contributions to make.

Since the need for planning and effecting improvements in education is so urgent under present conditions and there are relatively few people who know much about systematic planning, we face several dangers: Changes may be made simply because many people are dissatisfied and are looking for a panacea, because they are advocated by an influential group or leader, or, probably reluctantly, because they are required by a new law that may or may not be defensible.

Perhaps one of the greatest dangers is that the officials or the people in many states or communities will seek an easy way to attempt to solve their problems by contracting with a persuasive group of outside "experts" or with a profit oriented organization to make the study and develop the plans for them for a fee which is often substantial. Many organizations and even university professors are eager to obtain such contracts, and some of the

21
21

successful ones have moved quickly into the higher income brackets. In a few situations, the reports and recommendations have resulted in some important changes; in many others they have had little or no impact.

In view of what we know about planning and change in education, I propose the following criteria for careful consideration by everyone concerned: (a) The appropriate agency, board, or representatives of the people in every state and community should select a competent group or committee to develop the policies and guide the planning activities. (b) This group or committee should obtain the services of competent experts or authorities as needed to make or guide the technical studies and to assist in developing and evaluating the plans. (c) Seldom, if ever, should any community or state contract with any person or group to develop the plans (do all the planning) and prepare and submit a report and recommendations without any other obligations.

Improvement of Provisions for Financial Support

The major purpose of financial support for schools can be stated very simply and clearly: to facilitate the provision of adequate, equitable, and relevant educational opportunities and programs for all who can benefit from these provisions and programs. But the achievement of this purpose presents many difficult and controversial problems and issues that have not yet been satisfactorily resolved and are likely to become more complex and confusing in the future.

Few, if any, programs provided today can be considered adequate, equitable, or relevant for actual or prospective students, including many adults who could benefit from further education. Moreover, what is considered appropriate and relevant at present will not suffice to meet the needs of a rapidly changing society. The traditional concept of "teaching" will almost certainly need to be replaced at all levels by bona fide "facilitation of learning." In view of the two quadrillion bits of non-redundant information that will be available within the decade—some of which will become obsolete in a short time—the emphasis will probably need to be changed from emphasizing the ability of students to acquire isolated bits of information that can be "fed back" through frequent tests to helping students to identify pertinent problems and to select and utilize pertinent information in devising solutions to those problems. The current emphasis on traditional subjects and "disciplines" may be recognized, as Toynbee has pointed out, as too narrow and restrictive to meet the needs of the future. Even the staffing patterns are almost certain to change as a result of technological developments and the increasing emphasis on guided self-learning.

These and many other prospective changes in society and education will almost certainly have important implications for the organization and role of local school systems and state education agencies, and for provisions for school support. Since this conference is concerned primarily with provisions for financial support of schools, attention in the remainder of this paper will be directed to some of the major problems and concerns in that area.

Importance of Long-Range Planning

Systematic long-range planning for the improvement of provisions for financing education is as essential in every state and in the country as is such planning for all other aspects of education. But, as indicated above, planning for improvement of provisions for financial support must be closely related to planning for the improvement of the entire system of education. Only under these conditions will it be possible to determine and defend meaningfully the amount and sources of support proposed and the purposes and manner in which the funds are to be utilized.

Few people would attempt to defend the present provisions for financing schools in any state or at the federal level as much more than the results of a series of expedient decisions and actions that have often been based on indefensible demands by pressure groups, compromises, and attempts to meet the most pressing or obvious needs. Of course, there has been some planning in a number of states and some provisions are reasonably defensible under present conditions, but even the most defensible will not suffice to meet emerging needs. Fortunately the current National Educational Finance Project studies should help to highlight existing inequities and inadequacies and direct attention to some of the most promising possibilities for the future. But few of these findings and recommendations will be implemented meaningfully unless in every state and at the federal level there is a much more serious effort to undertake systematic long-range planning than is evident at the present time.

Even when the people in a state (a community or nationally) are making a serious effort to plan and effect improvements, there is always a danger that they will accept some proposal that seems "promising" without examining all of the implications or probable consequences, some of which cannot easily be determined. Among the proposals currently being advocated by some groups (sometimes almost as panaceas) that should be carefully studied by everyone concerned are the following: authorize local school systems to levy nonproperty taxes for support of schools; shift federal support to purposes other than education so that state and local school systems will be in a better position to increase their support for education; eliminate all formulas for state support and provide for local school systems to obtain their funds from state sources on the basis of negotiated budgets; provide for complete state support (either without any, or with limited, local opportunity to levy property taxes); provide for state operation as well as complete state support of schools; provide state support for nonpublic as well as public schools; establish a voucher system to provide funds so that students may attend any nonpublic school of their (or their parents') choice; provide for education partly or primarily through a system of contracts with private agencies or corporations.

Proposals That Need Further Consideration

In the light of recent and prospective developments, it seems apparent that some major breakthroughs in provisions for financial support of schools will be essential. Any single change that will facilitate the attainment of the major purposes of education should be helpful, but a series of related and

23

carefully planned changes will be necessary if significant progress is to be made.

Some of these changes may result from new and defensible concepts and proposals; others will undoubtedly result from more meaningful implementation of proposals that have been discussed for many years but have not been realistically implemented in more than a few states; that is, from proposals to narrow sharply the gap between our expressed values and beliefs and what is actually done about them. A few of these obvious needs are discussed briefly below.

Relating Sources of Income for School Support to Sources of Income of the People

The sources of income of the people have changed significantly since the nation was established and the early traditions began to develop. Currently, on a national basis, less than 10 percent of the income of the people is derived from property. Yet, in most states, at least 50 percent of the revenues for support of schools still come from property taxes. The Advisory Commission on Intergovernmental Relations has pointed out:

● Characterized by heavy inter-jurisdictional benefits, the State government—rather than localities—should be the prime financial source. ● With steadily rising educational costs at the local level and only moderate increases in State education aid relative to those local costs, school needs are absorbing more and more of property tax revenues—the claims of education now account for more than half of the local property tax dollar, up from one third in 1942.[2]

A number of authorities have recommended that, in most states under modern conditions, an average of at least 50 percent of the funds for support of schools should be derived from state nonproperty tax sources, at least 25 percent from federal (nonproperty) tax sources, and probably not more than about 25 percent from local property tax sources. A breakthrough in this respect should be considered imperative.

Realistic Provisions for Measurement of Needs and Costs

Few states have incorporated in their state support formulas realistic provisions for measuring educational need or determining local ability. These formulas urgently need to be revised and made more equitable if the state-local partnership plan is continued. In any such revision, most formulas would provide increased support for many large city systems because some of the acute educational needs that exist in those systems will have to be recognized more clearly than in the past. Special needs that are not even recognized in a number of state provisions include early childhood education, kindergartens, summer or extended term programs, appropriate provisions for economically and culturally disadvantaged students, adult education, and capital outlay and debt service.

Incentive Provisions

Several states have incorporated in their plan or provisions a mild incentive to encourage local school systems to increase their local support

21

beyond a designated minimum. In many states most of this effort has been devoted to an attempt to increase the level of support for what is sometimes realistically called "the *minimum* foundation program."

Perhaps the most significant breakthrough involving the incentive concept was made in Florida a couple of years ago (unfortunately tied, at the insistence of the governor, to a millage limitation that handicapped a few counties) when the legislature provided from state sources $1,720 per instruction unit *each year*, in addition to the funds authorized for the foundation program, for every county that developed a five year plan for the improvement of instruction and learning and evaluated and updated its plan annually. This provision merits careful study.

Provisions for Accountability

During the coming years, few legislatures are likely to be satisfied to appropriate substantial sums for education without requiring much more than valid reports by districts of receipts and expenditures. There is a growing and defensible demand for accountability that might be defined in trivial and handicapping terms, but it is hoped it will be established in a context that will result in providing valid and meaningful information about progress made in improving education, and thus will help to direct attention to major deficiencies and inefficiencies.

Fortunately, a number of states have developed and are utilizing helpful concepts relating to program budgeting and accounting, and several are adapting the PPB system (perhaps more appropriately, called the PPBE system by some groups) for use in education. Thus, we seem to be moving in a direction that should result in more valid accountability, but much greater progress is needed in many areas.

Development of More Logical
Basic Financing Units

A number of studies have directed attention to the serious problems and inequities that are perpetuated as a result of the continuation of unrealistic school district boundaries that were established many years ago. For example, in a recent study, Hooker and Mueller directed attention to the serious and indefensible educational problems and inequities that exist in the Kansas City and St. Louis metropolitan areas because of the artificial boundaries that have been established and perpetuated.[3]

They recommended the establishment of a basic financing unit for the entire metropolitan area with provision for logically organized operating units within the area, each of which would have some local taxing leeway. Other studies have shown that many states still permit—or, as a result of existing legal provisions, in effect, require—segregation of students on the basis of the wealth of the district in which they reside and perpetuate inequalities and inequities by discriminatory provisions for financing schools. Such practices are indefensible and in a short time may be considered unconstitutional on the premise that economic segregation is as discriminatory as racial segregation.

Some of the possibilities relating to the organization of large-area units for the basic financing are: (a) The major inequities in ability to provide the basic support for education could be eliminated. (b) With some relatively simple adjustments in state laws, the parts of a metropolitan area extending into adjoining states could be included. (c) Provisions for apportioning state funds for education could be simplified and made more equitable. (d) Provision could readily and probably advantageously be made, if deemed desirable by the people in an area, for the large area unit to assume appropriate responsibilities for coordination of planning, research, evaluation, and other special services that would be of mutual benefit. (e) Meaningful decentralization could be achieved by establishing logically organized operating units within the area, each of which would be responsible primarily for planning and providing an educational program designed to meet the needs of the population that should be served.

Concluding Observations

There can be little doubt that some important breakthroughs in provisions for education and financial support of schools are essential if significant and much needed improvements are to be effected. Neither educators nor lay citizens can afford to be complacent about the need for identifying and implementing more defensible provisions for supporting education. They cannot afford to make isolated changes merely because they are seeking relief from a particular pressure or problem. Long-range, systematic comprehensive planning is essential if educators, lay citizens and legislators are to prepare effectively for the changes that must be made in education.

Footnotes

[1]Harman, Willis. *The Nature of Our Changing Society: Some Implications for Schools.* Palo Alto, Calif.: Educational Policy Research Center, October 1969.

[2]Advisory Commission on Intergovernmental Relations. *State Aid to Local Government.* A-34. Washington, D.C.: Government Printing Office, April 1969. p. 13.

[3]Hooker, Clifford F., and Mueller, Van D. *Equal Treatment to Equals: A New Structure for Public Schools in the Kansas City and St. Louis Metropolitan Areas.* A report to the Missouri School District Reorganization Commission. June 1969.

Proposals for National Foundation Programs

Leon H. Keyserling

MY FRIENDS, first of all, I'm very glad to be here, and I do have a special feeling of kinship to this group here today. We're sort of relatives, because the most recent president of NEA succeeded my wife as head of the Women's Bureau in the U.S. Labor Department. In that connection, I was talking at a meeting recently, where a man said to me that he held a very important job and that, when he had been moved to another city, four vice-presidents of his company had to sign the transfer papers. I said, "We're far ahead of you. When my wife left her last job, 50 million people signed the transfer papers."

I also have an interest in the subject of discussion today, because I spent the first eight years of my life on an island where there was no school problem because there were no schools. No black schools, no white schools, no public schools, and no private schools. And so, until I was eight years old, I was taught to read and write and figure by my mother. But then my father thought that the family, in that the second child had reached school age, should have a professional teacher. So we imported a very charming lady, who was a professional teacher, who came and lived with us, and she started teaching us. And she did a wonderful job for about a month, and then my father said to my mother that he was going to let the lady go. And my mother said, "What's the matter? Is she unsatisfactory in any way?" He said, "No, she's wonderful." My mother said, "Why are you going to let her go?" And my father said, in a rather embarrassed tone, "Well, I found out that you are more educated and smarter than she is."

I'm not going to talk a great deal about the specific study of the problems of our public schools which I started to work on several years ago, and published under the aegis of the Conference on Economic Progress[1] a year and a half ago, although I was originally asked to do this study by the American Federation of Teachers.[2] The findings of that study, and its points of emphasis, are nobody's but mine; which is true of every study I do. I'm not going to talk very much about the findings of that study because, basically, these are not really much different from the findings in all other informed. sensitive, and responsible studies of the public school problem.

The main findings, in their quantitative aspects, are to set these goals for ten years from now: (1) 100 percent participation of the public school

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population in the public schools. While now there are many sections of the country where, as you all know better than I, the participation rate is very low; (2) bring the pupil-teacher ratio down to 20 to 1, and bring the pupil-total instruction staff ratio down to 12 to 1; (3) increase, measured in 1967 dollars, the per pupil outlays for the schools by 132 percent, or make them about two and one-third times as large as they are now; measured in uniform dollars. Allowing for the prospect of inflation, and the inflation since the study was published, they would certainly have to be at least three times as high per capita in current dollars by the tenth year. The study also proposes comparable improvements in the physical standards of schools, including classrooms, and proposes to take care of certain supportive programs which are necessary aspects of adequate public school opportunity.

But I'm not going to say any more about these aspects of my study. I'm going to concentrate on the method of financing and why it was chosen, and, second, the economic aspects of it, not from the viewpoint of public school funding, but from the viewpoint of the nation. I just heard the man who was kind enough to introduce me say that we won't get any school legislation worthy of the name until the various groups who all have the same purpose but who have somewhat different plans can get together. I would like to amend that statement by saying that we are not going to get any public school legislation worthy of the name until America pulls itself together, because the public school problem is an American problem. It is intimately associated with concepts of inflation and how to deal with it, concepts of the Federal budget and how to deal with it, concepts of people and how to deal with them, concepts of poverty and how to deal with it, and concepts of Federal spending and local responsibility, and how to deal with them. In terms of the empirical experience, which is a very small part of the perspective of most economists, I think America is going substantially wrong on all of these subjects, and suffering accordingly. And until we change this trend by our actions as literate citizens, whether we be affiliated with the public schools or not, we're not going to get sufficiently responsive attention to the problems of the public schools.

So I will focus on these aspects of the problem, including the problems of inflation, because the supreme barrier that is raised whenever anyone talks about adequate outlays for what we need most is, "Oh, it will be inflationary. Let's not do it now, and then we won't have so much inflation, and not having so much inflation will help everybody more than any specific program could help them." Now, lest one think that I'm being political about this, I think that we're gone wrong on our economics in some degree during the Nixon administration and the Johnson administration and the Kennedy administration. And I'm not going any further back than that, only because I would be suspect. But going wrong for ten years is long enough.

The method of financing proposed in the study[5] which I have prepared is really very simple. It starts with the proposition that the child is not basically and fundamentally an adjunct of the state but an asset of the nation, and, therefore, a minimum basic standard of public school outlays should be established for every state, city, and county in the nation. I'm not going into the subject of whether money is everything. Most of us think that money is

29

not very important, except for ourselves. I am not talking about the qualitative aspects of education. I recognize that there are vital problems of pedigogical method as to what to teach and how. There is also the problem that it is not enough to have a child in a good school, if he or she goes back to a slum home and an unemployed father, a demoralized mother, and an older brother in the knife gangs. Just as there is not much use giving a child a Headstart for a few weeks or months, and then sending him or her back to the conditions which made him or her need the Headstart. But for reasons of concentration, I will limit myself to the material means through the resources of the nation, of financing our public schools. I even think, without bias although I am an economist, that this is the first and foremost problem, and that this is not in the ultimate a material problem but a moral problem. Even the use of physical resources, even the use of our national wealth, is a moral problem, because the only reason we're not doing the school job adequately is not because we can't afford it, but because we haven't risen to the moral responsibility.

By this, I mean the national or Federal moral responsibility. There are vastly different standards of current outlays per capita in the public schools in the various states, of course, but this has very little to do with the relative moral rectitude or intentions of the various states, but has to do with their relative income and wealth. In fact, some of the states, which some of us might deem most backward in some respects, are spending a larger part of their resources for education than those which are much further advanced in these respects. Therefore, my study starts with the proposition that 10 years from the base year, which now would be 10 years from 1970, or 1980, and originally was 10 years from 1967, or 1977, every country and every state and every city in the nation should have a standard of public school outlays coming up to at least the defined minimum standard, which I will merely define as coming, in uniform 1967 dollars to about 132 percent higher than now, and, allowing for inflated dollars, maybe three times as high.

The first question which then arises, is how this responsibility should be shared between the 50 states and the Federal government, and the first part of that problem is what the states' share should be. I have found, or at least I think, that many of the traditional bases of determining the states' share are both irrelevant and unworkable. I don't think the population basis will do, because that doesn't describe the relative resources of the states. I don't think the relative amount of poverty in the different states will do, because broadly speaking and subject to refinements that I can't make in a short time, there is no necessary or absolute correlation between the amount of poverty in a state and the general wealth of that state. The problem is further complicated because one must recognize that, for a variety of reasons which I will not detail, it doesn't follow that each state should allocate exactly the same proportion of its own available resources to public school education. Different states have different problems to meet, in vastly different proportions.

Taking all these factors into account, and taking into account the combination of a national purpose with the retention of considerable decentralized responsibility, I have been able to find no better formula than

that each state, as a condition of Federal aid, be required to increase its expenditures for public school education on a per capita basis at the same rate that it has been doing in the last few years, plus an additional allowance for the improved economic growth rates which we should all seek to attain. For unless we get policies directed toward improved growth, in the form of full employment and a war against poverty and a decent housing program, etc., we are not going to solve the school problem, and we're not even going to elect to do enough about the school problem. I find this formula, requiring that the states continue to do not less than they have been doing, by way of increased efforts over the years, to be about the most workable and the fairest one I have been able to arrive at. And when I have tested it against how it would work out in the 50 states, I fully confess that one can find one or two examples where it would work out quite badly. It is like what Churchill said about democracy, "It is a defective system, but every other system is worse." When I test any other formula, it has even more defects and disadvantages in its appplication to 50 divergent states.

The second part of my proposal, which you've already guessed, is that the Federal government shall make a contribution to each state, making up the difference between the state meeting its share of and the total dollar goal per capita set as a uniform minimum standard throughout the nation. This, of course, would result in the Federal contribution to the different states varying greatly, but that is true even today. The only trouble is that the Federal share is minuscule today. Today, I believe the share ranges, state by state, from something like 6 percent Federal to 12½ percent Federal. Under my formula, the share variation would be somewhat greater. But it is interesting to note that under my formula, the Federal share in those states which would get the smallest relative share would be higher percentagewise than the Federal share today in those states which now get the highest Federal share percentagewise. So, while all would not be treated equally in an abstract sense, all would be treated equitably, and also, would be treated better, if one assumes the purpose of looking at the common denominator, not as the state or the county or the city, but the child! All would be treated equitably, because the minimum standard to which the outlays per capita would be brought would be uniform, and all would be treated more adequately because all would be lifted to much higher levels than now exist, and I think much better than they would be treated under any other formula because the absolute amounts per child would be higher everywhere.

Now, this is the essence of my proposed formula. I'm not going into the question of whether there should be allowance for different costs of living in different states, or different costs of construction. These are not as great as commonly supposed. Most of the states and most of the people who are supposed to have lower costs of living simply have lower standards of living. If you try to bring them up to the same standard of living as others, the costs are really not so tremendously different. In any event, our purpose on all scores, and there's no better place to begin than education, is to try to bring the nation up to more equal standards rather than more divergent standards, whether it be industrialization or whether it be economic opportunity or whether it be employment or whether it be levels of relief.

I suppose a very striking example of this principle I am enunciating is the beginning movement of the current national administration toward a more unified, dignified and nationalized system of help to those who cannot earn income. I merely apply that principle to something more traditional, and something more in accord with what the nation already accepts in theory, and, let us say for the purposes of the argument, even more fundamental, because there is really nothing more fundamental than the public schools.

Next, there is the question of costs. All I will say on this is that, under the program which I propose, total Federal outlays for education, including and to other types of education also, as a percentage of our total national product, would rise to 2.36 percent in the tenth year, which by any comparative tests with some of the things we are spending money for now, both privately and publicly, or any comparative test with other relevant areas of the world, or any fair test as to what we should be doing and can well afford, will still be very low, and not very high. The total Federal, state, and local expenditures for education, since under my formula the Federal government will bear about 2/3 of the total as of the tenth year, the total would be one-half greater than the 2.36 percent or only about 3.5 percent our gross national product for public outlays for education. Another interesting way of measuring costs is to examine what percentage the proposed increases in public school outlays would be of our economic growth, and, taking the increased Federal, state and local public school outlays together, they would be only about one-fifth of our economic growth dividend. This means that, far from robbing Peter to pay Paul, or even rising to the levels of moral responsibility which might be involved in taxing the affluent to meet the needs of the needy—I'm not even proposing going that far--looking at the economic growth dividend, superimposed upon what we have now for all purposes, only about one-fifth of that dividend would be absorbed during this 10-year period of time in bringing our public schools up to what they ought to be, and that would leave four-fifths of the growth dividend for a wide variety of other purposes, even including more tax reduction for the affluent, who have already received a lot of it.

Coming finally to the matter of inflation, of course the main obstacle voiced against moving vigorously on what we ought to do about the public schools, whether through this formula or through some other formula, is that it would involve the spending more money, and therefore would be inflationary. The statement that inflation is the cruelest tax of all is true only to a degree. Inflation is the cruelest tax of all, when the programs and policies which are causing the inflation are inflating the fat and starving the lean. Inflation is not a cruel tax at all, but is economically sound and socially just, when the inflation is caused by programs which improve the distribution of income, and help to meet our great national priorities. If the amount of inflation we have suffered during the past ten years (which on a ten year average is about the same as the last twenty years and a great deal less than the past thirty years, despite the excitement about the last ten years) had been occasioned by a full employment program, by an adequate economic growth program, by adequate outlays for our great domestic priorities in the fields of schooling and housing and health services, and by bringing our social security programs

up to where they ought to be, that kind of inflation for those purposes would not be a cruel tax at all. It would simply be using a price structure, in part, to have the people who can afford it pay for what others should have. It is certainly not a cruel tax upon an unemployed family, which is maybe getting $1,500 a year, to have the breadwinner become employed and get $4,000 a year, even on the assumption that it may have to pay 3 percent more for what it buys. And if I had to pay 3 percent more for what I buy in order to raise that family's income from $1,500 to $4,000, I would not regard that as a cruel tax. Such a process would be entirely different from the kind of inflation we've had. The kind of inflation we've had has been based entirely upon redistributing income upward, feeding the fat and starving the lean.

The clearest example of this, of course, is the policy of tight money and rising interest rates, which has done such terrible damages to the capacity of local and state public bodies and the Federal government to finance what we need most, and has fattened the coffers of those who have lent back the American people their own savings. The prevalent monetary policy is grossly inflationary, because the rising interest rates are passed on by the utility companies in higher rates, and by the wage earner legitimately asking for a higher wage when he has to pay out a full year of his earnings, over the life of the mortgage, in the inflated cost of interest alone, etc.

The most important point, however, is this: Contrary to Mr. Nixon's chief economist, Mr. McCracken, and Mr. Johnson's chief economist, Mr. Okun, and Mr. Kennedy's chief economist, Mr. Heller, contrary to them all, although they have been selling the nation on the idea that slowing down the rate of economic growth and causing a recession and causing rising unemployment and having a tight federal budget and having a policy of tight money and rising interest rates is anti-inflationary, these policies in fact aggravate inflation. The empirical evidence is to be found in the whole period since the Korean War, which I will not review, and especially in the last three and one-half years. Thus, we reached the crescendo in early 1970, with a 20 percent rise in unemployment, and that is just a beginning; a 40 percent decline in housing starts, and that is just a beginning, with a vacancy ratio of less than 1 percent in New York, and a slowdown in the rate of real economic growth from 5 percent to zero, and now to a recession which will soon be acknowledged by all. And accompanying the "success" of all of these measures to restrain inflation, and with the Federal government in early 1970 borrowing money at the highest rates in 101 years, and with other interest rates going up accordingly with their evil impact upon education, the consumer and wholesale price indexes nonetheless were rising at 6 percent a year at an annual rate, or at the highest rates in 25 years and accelerating throughout the economic slowdown.

I will not give the economic reasons why this whole program, besides being inhuman and unconscionable, is highly inflationary. We are told that, if we just have enough patience, this kind of "anti-inflationary" program will take hold. Now, it was Cicero, I guess, who said, "How long, oh Catiline, will you abuse our patience?" I think 17 years of this kind of policy, since the end of the Korean War, is long enough. I think the most recent three and one-half years is long enough to test it. If the price rises were even slowing

33

down while the economy w..s faltering and stumbling and while unemploy-
ment was rising, we could say that there's a lag but some results are being
obtained. But when the whole history indicates that prices are rising faster as
the economy is being crippled, the time has come, not to ask us to be a little
more patient with the medicine, but instead to repudiate the medicine.

In conclusion, I think that the time has come for all those interested in
public education to recognize their broader economic responsibilities, and do
their homework, and become prepared and armed in their talks with
legislators and congressmen, with senators and with presidents and governors
and with mayors and among themselves. They must become prepared and
willing, not only to be special pleaders (and I use that term in no invidious
sense) for the public schools, but to be general pleaders for America; not only
people talking about the problems of the public schools, but talking about
the errors and mistakes and social injustice and economic nonsense of which
the failure of well-meaning people to do what they should do for the public
schools is but a byproduct. Until we start doing that, I don't think we'll make
a great deal of progress. This is why I have appreciated the opportunity to
talk about things which I may not know any more about than the rest of you
but, in any event, have studied more than the rest of you, while if I
concentrated exclusively upon the public school problem, I would be bringing
coals to Newcastle.

Footnotes

[1]Keyserling, Leon H. *Achieving Nationwide Educational Excellence*. Washington, D.C.:
Conference on Economic Progress, December 1968. 92 p.
[2]Keyserling, Leon H. "Achieving Nationwide Educational Excellence." *Changing Education*, Summer/Fall 1968. p. 3-48.
[3]*Ibid.*

National Foundation Program

Harold V. Webb

AT ITS 1969 ANNUAL CONVENTION, the National School Boards
Association adopted a resolution urging the Congress to enact federal
foundation support legislation for education. My presentation here today will
be directed toward showing why we found this approach to federal assistance
so attractive.

As you probably know, by federal foundation support we simply mean
an amount of federal assistance needed to buoy state and local per-pupil
expenditures up to that fixed minimum level necessary for each child to have
a quality education. In framing this minimum level in terms of per-pupil
expenditure, we are giving as strong an emphasis to the democratic principle
of equal opportunity as we are to quality education.

In other words, the purpose of this resolution is to assure every child in
America that his neighborhood school can offer him a fair chance to fulfill his
individual potential and thereby enable him to make a maximum contribu-
tion to his society. And to be consistent with this purpose, NSBA feels that
federal foundation funds should not be drained from "normal" education
programs through their use in supplemental programs found in school
districts having high concentrations of children who are in a special situation,
such as culturally disadvantaged, bilingual, or impact students. The extra
educational needs of these children should be provided for with funds which
are in addition to—not from—the amounts otherwise requisite to giving them,
as well as other children in the school district, a good education.

I turn now to the operative features of the program. It may facilitate
the general discussion if I first quote the NSBA resolution:

The National School Boards Association urges that Congress and the President
immediately establish a program of federal foundation support for public education
which (a) expresses the national concern that each child be provided an equal
opportunity for good public education; (b) compensates for disparities in the need,
effort expended, and resources of the states and territories of the United States and
subdivisions thereof and the District of Columbia; (c) provides within five years a level of
expenditure for operational purposes of not less than an average of $1,200 of 1969
monetary value per public school pupil of which, nationwide, one half would come from
federal sources; and, (d) ensures maintenance of state and local effort through
appropriate matching requirements.[1]

Dr. Webb is Executive Director, National School Boards Association.

This resolution is simple in form and expresses a philosophy about our position on federal aid. We decided the best approach our organization could take was to develop the framework of what our goals were, then to put the details within that framework. All too often in the past, legislation, wnether state or federal, represented a patchwork of ideas having no over-all direction except that more money was necessary. We recognize there may be problems in getting the precise kinds of data necessary to fully develop a federal foundation program and that specific provisions may fall short of our goal. However, we believe it wiser to plan the general direction of the legislation and deviate when necessary than to put together just another federal aid proposal.

In urging the Congress to enact legislation which lifts the over-all minimum educational level, we are favoring a general grants-in-aid program rather than the financing of specific programs. We believe that in so limiting the role of the federal government to supplier of funds, a more effective use can be made of education dollars.

I will not at this time dwell upon the statistics or document a raft of complaints. However, we do have reports from board members that strictly defined federal programs are often unresponsive to state and local needs, and frequently better use can be made of funds allocated for one program if they could be used in other areas. In addition, there is the wasteful cost of superimposing new administrative procedures on the 90,000 state and local agencies which participate in 170 grants-in-aid programs administered by 21 federal agencies.

And all of this with only a 7 percent federal resource participation. When funded at the $1,200 limit, foundation support would amount to about $35 billion. This enormous sum implies a strong *potential* federal waste of funds through the types of inefficiencies described earlier. To avoid this "non-maximization of funds syndrome," the federal foundation program moves away from strict guidelines and for that matter, may eliminate some of the fragmented categorical assistance programs altogether in favor of a "no strings attached" general education grant.

Speaking realistically, however, we are not urging the elimination of any current federal programs until this new foundation program is fully funded. But as the federal government moves toward providing $35 million in the national foundation program, categorical grants can be evaluated and perhaps some can be eliminated or revised without the crippling effect of withdrawing existing federal support. State legislatures have found that new funding gives the opportunity to examine existing support plans. Revision of existing categorical programs without attention to new funding or a period of adjustment to permit transition creates shocks in local districts to which federal aid looms large in the local budget, especially if it must be immediately replaced by local funds.

To summarize our position in this report, we are of the opinion that the proposed legislation for increased federal aid should be in the form of a general unrestricted grant. However, we believe that some categorical aid programs should be retained, such as the aforementioned special situation items. At the same time, we wish to avoid an all-or-nothing choice between

categorical and a general grant. We are also well aware of political realities and the forces supporting categorical programs. If the usual American political approach is taken, the result of our effort will probably be a mixture of categorical and general aid.

Thus far what we have really said is that in spending its money, the federal government should not participate in the management of education. However, it is quite a different matter when we speak of the federal role in the distribution of its funds to the states. At this juncture the federal-state-local relationships are very sensitive and care must be made to assure that (a) there is no federal control of the funds, (b) the state educational agency is properly involved, and (c) the exact amount for each local school district is assured.

Since a major theme of the foundation resolution is that the minimum level of education which the school can offer its pupils should be uplifted to an equal national standard, we believe that funds should be distributed according to a formula which assures each district that indeed its pupils will have an equal opportunity compared with students attending schools in other districts.

Payments of federal aid should be made through state departments of education, both to avoid the opposition which naturally springs from alteration of existing procedures, and to insure the involvement of state education agencies in the over-all national approach to achievement of equal educational opportunity. However, the federal aid legislation must establish strict allocation criteria to be applied on the school district rather than the state level. This means we do not favor a state plan program in the traditional sense of that term.

This federal formula should take into consideration such items as (a) local effort and capability, (b) population density, (c) governmental overburden, and (d) proportions of culturally and physically handicapped children, which will enable each school district to determine and insist that it receive an ascertained amount of federal support. The issue of what minimum effort will be required at state and local levels should be made a function of the allocation formula.

And finally it should be noted that the legislative precedent for formula distribution on a school district basis is already established. We only need look to Title I of ESEA as evidence of this.

I have mentioned some of the elements which must be weighted in considering a formula distribution. This aspect of the plan is still in the embryonic stage. We, of course, are working out the details necessary for a formula to attain the goals we desire. We are aware that our task involves an empirical study of thousands of school districts. It is, if you will, an ecological study of education in America. In addition to being statistically consistent, the formula must also be politically acceptable to "other organizations" as well as the Congress of the United States.

While there are many details yet to be developed, there are two variables which we have been giving particular consideration.

The first is per-capita income. Fairly current data are available on a state-by-state basis. This income information compared with total educational

expenditures in the state may be part of the basis for determining state allotments.

A maintenance-of-effort requirement for school districts may be based upon a review of assessed valuation and the local property tax rate; that is, if this comparison can be made meaningful through some state method of assuring either uniformity of tax treatment of all property in the state, or the refinement of local data so that one district can be compared with another.

Another political arena about which our constituency is particularly sensitive is the church-state issue. NSBA has a mandate from its membership to oppose inclusion of nonpublic schools in any general aid bill. However, we recognize the overriding political importance of a unified front of all educational groups and will be prepared to support a program which calls for support of children in nonpublic schools if (a) the program does not infringe on constitutional prohibitions on separation of church and state (as would appear to be the case with grants under ESEA Title I for which NSBA favors full funding despite the allocation of benefits to children in nonpublic schools); and (b) the level of federal funding contemplated by the program being commonly supported is such that there will be adequate support for public education, despite the support of children in nonpublic schools.

We have explored alternative methods of providing general federal assistance for the school systems. We reviewed the others, and while they all are pointed in the right direction, we decided not to adopt any of them. In the spring of 1968, one such alternative, NEA's grants-in-aid bill, was introduced into both Houses of Congress. Basically, this $5 billion package would provide grants of $100 per pupil annually. The bill also contains a supplemental grant program which made an additional $3/4 billion available to lower-income states.

Aside from the fact that our proposal contains a goal objective, that is, a minimum standard for education, there are several fundamental reasons why our approach is more attractive to school-board members. First of all, the NEA bill earmarks one-half of the funds for raising teachers' salaries. While there is no question that teachers' salaries should be raised, the bill "looks" too much like a federal subsidy to teachers. Since, as a general rule, more than half of the funds go to teachers' salaries anyway, teachers would in many cases enjoy the same result, indirectly, through foundation money. Furthermore, others feel that states should set their priority items for themselves. And in this connection, the federal involvement raises the aforementioned "non-maximization of funds syndrome" which means a forestalling of quality education.

Board members prefer a program which utilizes an equalization formula throughout the grant; on the other hand, the NEA bill gives recognition to equalization only through special grants. The basic grant of a flat $100 per-pupil grant does not consider whether the state and local governments are contributing $500 or $1,500 per pupil. Foundation assistance distributes funds only to the extent necessary to bring expenditures up to the $1,200 figure.

Also in 1968, the American Federation of Teachers proposed a Ten Year Plan to Save the Schools. Like the NSBA resolution, this plan calls for a

nationwide minimum educational standard. However, it differs in that finances would be conducted at the state level rather than at the school district level. As indicated earlier, we prefer a formula that guarantees each school district a specific amount.

Revenue sharing has become a popular battle cry during the first two years of the Nixon Administration and another of our resolutions supports this concept. While revenue sharing and our foundation program both support general aid to education, we, of course, prefer foundation support in that it is direct equalized aid to education.

Even though NSBA supports the concept of revenue sharing, we have voiced strong opposition to the pending Administration bill. Under this bill funds are distributed to the states and redistributed or "passed through" to general revenue local agencies. This means independent school districts which are not general revenue agencies are not entitled to any direct benefits under the plan. Indeed, since the amount available to both the states and the localities is based on the amount of general revenues collected, the bill discriminates against governmental agencies in which independent districts are located--such as school districts--because their services are funded from special taxes which would be collected as general revenues if the state or municipal government performed the services themselves.

Throughout this discussion we have stressed political realities, the most important of these being the joining of forces of all in education.

We learned an important lesson when a group of us formed the Emergency Committee for Full Funding of Education Programs. Over 100 educational agencies became part of that endeavor. Stanley McFarland of the National Education Association became its Chairman, August Steinhilber of my staff is Vice Chairman-Treasurer, and John Talmadge of the Association of American Colleges is the Chairman of the Ways and Means Committee. The results of this unified action were astounding. Instead of education being funded at over $400 million less than fiscal year 1969, the final 1970 appropriation was $200 million over the 1969 appropriation, and, in fact, $200 million over the Administration's 1971 budget request.

I hope we all can join forces again in the area of general aid.

Footnote

[1]National School Boards Association. "The Resolutions Boardmen Passed." *American School Board Journal* 156: 13; May 1969.

The Rationale for General Federal Aid to Education

Oliver Ocasek

IN YOUNGSTOWN, OHIO, the public schools closed for a month last year.
Asked why, the director of information services for the Ohio Education
Association said, "It's far better to operate schools 'right' for at least part of
the year, close them down when the money runs out, and then reopen them
when sufficient funds become available to enable us to continue to do a
professional job. This is actually more responsible than operating a
substandard program for a full year and letting taxpayers fool themselves into
thinking that education is taking place."

In Waterford, Michigan, a local group called Waterford Homeowners
Against Millage (WHAM), is trying to persuade voters to reject a request for
additional tax levies to keep their schools open full-time. "It's not that we
don't want good schools," insists their spokesman, "but we've had it up to
here with taxes. They're trying to draw blood from a turnip that's been
drained dry."

Although Ohio educators and Michigan citizens have used unorthodox
methods to solve the financial crises facing their schools, the situation they
face is not unique. School systems throughout the country are in similar
financial distress. The National Education Association reports schools in
trouble in California, Colorado, Illinois, Indiana, Kentucky, New Jersey,
Oklahoma, and Pennsylvania. Many more should probably be added to the
list.

Citizens at the local and state levels can no longer cope with the
swelling budgetary needs of our schools. The tax base is near exhaustion, and
the taxpayers are in revolt. The charge that state tax resources are not being
used to their fullest extent is a myth. All but five states have a sales tax, some
as high as 6 percent. All but 12 states have enacted personal income taxes,
and all but six states have corporate income taxes. Every local government
has a property tax. By September 1969, 36 state legislatures had raised tax
rates: 12 raised individual income rates; 14, corporate income rates; 12, sales
taxes; 14, motor fuel; 19, tobacco; and 16, alcohol. In the 1969-70 school
year, 93.3 percent of the money for school revenue was raised from state and
local sources.

Mr. Ocasek is a Member of the NEA Legislative Commission and a Member of the Ohio State Senate.

Taxpayers are neither willing nor able to pay more; last year 55 percent of school bond issues failed. For the second quarter of 1969 ending June 20, the Investment Bankers Association reported that only 25 percent of the money requested in bond issues won the voter approval. State and local taxpayers are now turning, with even greater need, to the only resource left, the federal government.

For more than a century, NEA has championed federal aid to education. As early as 1884 the NEA was supporting such "modern" concepts as equalizing grants which provide money to the states on the basis of need. It was an NEA bill drafted in 1866 which created the Bureau of Education, now the U.S. Office of Education. The NEA has also helped create the climate for passing such landmark legislation as land grants to colleges in the Morrill Act, aid to vocational education in the Smith-Lever and Smith-Hughes Acts, and educational training benefits in the "G. I. Bill of Rights."

But all NEA efforts have not met with such success. In the late 1940's, for example, educators vigorously supported the late Senator Robert Taft in the belief that the federal government has a responsibility to provide enough funds to the states so that every child would receive a sound educational opportunity regardless of where he lived. The Senator argued that the right to a good education is the basis for our republican form of government and the American concept of equal opportunity. He believed that no government that depends on decision-making by the people can exist without an educated populace, and children cannot have equal opportunity without a basically sound education. In matters affecting education, he said, "I do not believe the Federal Government can say it has no interest, and can say to the people, 'Go your way and do the best you can.' ... Because of the way wealth is distributed in the United States, I think we have a responsibility to see if we can eliminate hardship, poverty, and inequality of opportunity to the best of our ability. I do not believe we can do it without a federal aid system."

In the 1940's the NEA also backed efforts led by former Senator Lister Hill to earmark the income from off-shore oil for education. Unfortunately both efforts failed. In the late 1950's an upsurge of interest centered on the Murray-Metcalf bill which would have provided $25 per child (rising to $100 per child) to the states to use to equalize the cost of school construction and teachers' salaries. This proposal also died.

However, in 1965 education made its first major breakthrough to federal aid with passage of the Elementary and Secondary Education Act (ESEA), which reaffirmed that the federal government has a stake in education. But just how large a stake that should be is still under debate.

Educators think they have the answer. The NEA has for many years believed that federal, state, and local governments should share equally in supporting the public schools—no one group should be disproportionately taxed. This is certainly far from true today. In the school year ending in 1970, federal support for public education is 6.7 percent, the state share 40.8, and the local share 52.5. While straining under an already burdensome load, state support of schools increased from 1968-69 by 12.6 percent, and local share by 9.6. Yet the federal government, with a galloping Gross

National Product of $1 trillion, backed off from its responsibility at the time when its help was needed most--the federal share for public education declined 0.6 percent.

We cannot possibly keep pace with our rapidly growing school system, or even talk about improvement without substantially increased funding. Money alone will not solve the problem, but the problem cannot be solved without it. These funds must come from the federal government, the only body with taxing authority to supply the money in sufficient amounts. Although we have billions of dollars authorized for education purposes, we have never really put our money where our legislation is. Since the establishment of ESEA, the Congress has consistently underfunded all major education programs, sometimes by more than 50 percent. This leads to nothing but failure of the federal programs, and further Congressional reluctance to provide more money.

Since the passage of ESEA we have had time to take stock of where we are. We see that federal aid to education has proliferated into a hundred categorical programs. There is one for textbooks, one for equipment, and still another for libraries. These are vital needs, and we support them, but nowhere is there a category for solving the number one problem in education: a critical shortage of highly qualified teachers. You can buy the best equipment in the world, put it in the newest classroom, but if you do not have good teachers to use them and to motivate the students, too, you have plugged the dike at the weak points but you have not supported the structure that holds the dike together. The needs of the schools can no longer be met in piecemeal attacks, nor by ignoring the most important element in that school—the teacher.

In 1967, two years after the passage of ESEA, the NEA set up a task force to investigate the best way the federal government could aid elementary and secondary schools. This was to be a review of existing programs and the charting of a course for new cnes. After several months of study, the task force came up with a number of conclusions.

First of all, the task force concluded, the federal government can contribute greatly to elementary and secondary education. It brings a broad perspective to the local-state-federal partnership. Goals, such as continued economic growth, full employment, and full civil rights, are national in character, and better education is the first step in achieving them. Secondly, the federal government can tap resources vastly greater than those available to any local or state government. Also, it is unhampered by the fear of losing such taxpayers to low tax areas. Lastly, the federal government, working on such a large scale, can develop and research programs which would have educational value for all the states.

There are inherent limitations to the federal role, however. While education is the only concern of local boards of education and is a major concern of the state governments, it is only one of many interests on the federal level. Also, the federal government, which is the farthest removed from the classroom where teaching and learning occur, is least able to recognize and provide specifically for the different educational needs of the different communities.

42

With these thoughts in mind, the task force set forth criteria that it believed should govern federal grants to public schools:

1. The major contribution of the federal government should be financial and in the form of general aid to the states for improving educational opportunity. NEA believes that the primary responsibility for education should and does rest with the states, not the federal government. Therefore, the federal role in education should be limited to giving states the money to spend as they see best in accordance with local needs.

2. The federal share of fiscal support of elementary and secondary schools, when combined with state and local tax resources, should be sufficient to provide adequate educational facilities in all state and local school systems. This means that to provide equal opportunity for all children, some states must receive more money than others. There is no one answer to all problems.

3. The amounts of federal funds to which individual states or local school districts are entitled should be determined by objective formulas, reducing to a minimum the discretionary power of federal officials. This formula should recognize the wide variation in the states' ability to finance education.

In Alabama, for example, the average expenditure per pupil in average daily attendance in 1969-70 is $438, while in one eastern state (New York) the figure is $1,251. Each child has the right to a good education no matter where he lives, and federal legislation is the only way to compensate for regional inequalities.

The fear has been expressed that massive federal aid would result in the states and local communities decreasing their efforts to support education from tax revenues available to them. Experience has shown that this is not true. In fact, federal aid encourages rather than retards state and local efforts. Since 1965-66 the increase in state and local school funding has been more than 18 times the increase in federal school revenues.

With this philosophy for a base, the NEA sponsored a bill to provide a new kind of government assistance: general federal aid to all school districts. The bill, called the "General Federal Assistance Act," was introduced by Rep. Carl Perkins (D-Ky.) and Rep. Edith Green (D-Oreg.). By current estimates, this bill would supplement existing federal education programs by about $7.8 billion. First, it provides $100 per school-age child (age 5 to 17) to be distributed to the states on a per-capita basis. At least half this money must be used to increase teachers' salaries, while the remainder may be used by the states to meet other urgent needs as they define them. The entire basic sum, about $5.3 billion in 1969-70 could be used for teachers' salaries, but only 50 percent need be. The bill also provides an additional $2.5 billion in the form of a supplemental grant to be distributed to the states on the basis of need.

To the extent consistent with law, the bill would allow private schools to take advantage of the federal program through the use of shared class time, use of instructional materials, use of certain supplementary services such as mobile classrooms, health services, and counseling.

The program would also be simple to administer. All funds would be distributed to the states by the U. S. Commissioner of Education, and to

apply, the state need only provide that one-half of the formula-granted money will be used for increasing teachers' salaries. All applicants must also provide that federal funds will be kept separate from state funds. The Commissioner of Education may withhold funds after a hearing if he determines that a state has failed to comply with the provision of its own application. Also, there is a provision for judicial review.

The NEA General Federal Assistance Bill is an attempt to provide money where educators think it is needed most. Research over the past 30 years has shown that student achievement is closely related to teachers' salaries, the amount of money spent on each student, adequate staffing, and class size. In 1936, Professor Paul Mort of Columbia conducted his now famous studies on the cost-quality relationships in education. His work identified many factors which influence the quality of education: the net expenditure per pupil, the average teacher's salary, the teacher-pupil ratio, and the specialist-pupil ratio. Several studies conducted by the New York State Department of Education reinforce these findings. In 1957, the department compared the 12 universally good school districts and the 12 poorest. Modifying for IQ and social origin, researchers found that the 12 good districts spent 25 percent more per pupil, had higher tax rates, hired about five more professional staff per 1,000 pupils, and paid them in accordance with a better salary schedule, than did the poorer districts. The teachers in the quality districts were also more widely traveled, younger, better-trained, and were recruited from a wider area. This dynamic youth factor crops up in one study after another.

In 1961, Swanson, also a professor at Columbia, conducted a national study on school costs vs. school quality.[1] He, too, found that both higher salaries paid to teachers and the number of pupils per teacher had a positive effect on the quality of the child's school experience. Because both higher salaries and more teachers compete for the district's limited financial resources, Swanson dug further and concluded that higher teacher salaries do more to affect pupil learning than do the number of teachers employed. A more recent study in the Baltimore City Schools, conducted by Furno and Collins, found that when all other factors are held constant, pupils in small classes (1-25) made significantly greater gains in reading and arithmetic than pupils in larger classes.

Statistics show just how badly this money is needed. The average starting salary for beginning teachers with a bachelor's degree in fall of 1969 in systems enrolling 6,000 or more pupils was $6,383. A man with a bachelor's degree in engineering started at $9,960 and a liberal arts graduate at $7,980. The average teacher earns only $7,900 after 12 years in the classroom. Unbelievably, 58,000 teachers are receiving less than $5,500 this year. When compared with beginning salaries for bachelor's degree men graduates in 10 fields of specialization, teaching has not gained any competitive advantage since 1965. Can we really believe that such a situation will attract and retain the best of each year's college graduates?

NEA's General Federal Assistance Bill, with approximately $3 billion channeled into teachers' salaries, would:

• Raise the average of the instructional staff salary in public

elementary and secondary schools by $1,500 above increases from state and local efforts.

● Raise the starting salary of beginning teachers with the bachelor's degree from an estimated $6,383 to an estimated $7,800 in 1969-70.

● Reduce the gap between starting salaries for bachelor's degree teachers and starting salaries for men bachelor's degree graduates in 10 other professional areas to about 20 percent. Without additional federal funds, the gap would probably remain at about 40 percent.

● Increase the beginning salary for master's degree teachers from an estimated $6,900 to an estimated $8,400 in 1969-70.

Yet teachers' salaries are not the whole answer. The remainder of the federal funds could be used by the states in many critical areas. Urban schools, for example, are going through a special crisis. The President's Commission on Urban Education suggested $7-14 billion should be spent on urban education by 1974. The NEA estimates it will cost about $3 billion just to employ the 285,900 additional teachers required for a maximum class size of 25 pupils in elementary and secondary schools in big city schools. Money is also needed to provide minimum extension services in city schools to help bridge the gap between central cities and the suburbs. This could be done by extensions of the regular day-school program to provide for a longer day, a longer week, and a longer year.

Additional federal funds could also help provide adequate preschool programs to many children. The importance of early childhood education has been repeatedly demonstrated in recent years by research studies and by Project Head Start. Effective early childhood programs can often obviate the necessity for expensive remedial education programs in later years. However—

● 34.6 percent of all first-graders last year did not have the opportunity to attend a public school kindergarten.

● Half of all U. S. public school systems with elementary grades have no kindergarten program.

● In 1968, less than 6 percent of the first-graders in the Southeastern states had the opportunity to attend a public school kindergarten (public kindergarten enrollment in fall 1967 was 5.3 percent of the first-grade public-school enrollment in fall 1968). Almost one million 5-year-olds each year in the Southeast alone are denied a chance for the educational boost of a good public kindergarten. Alabama, Arkansas, Mississippi, South Carolina, and Idaho reported no public school kindergartens in the fall of 1968.

The NEA proposal of an $8 billion general federal aid bill is not an unrealistic one. The NEA goal, 33 percent federal partnership, would infuse $50 billion into public education. Many Congressmen, aware of the drastic education needs, see this as a more realistic figure. But the NEA bill would be a start. It would do two things and do them well. It would leave the control of education to the states and local communities, where it belongs, and put the federal money where the need is, in the basic school operating budget.

Footnote

[1]Swanson, Austin D. "The Cost-Quality Relationship." *The Challenge of Change in School Finance.* Proceedings of the Tenth National Conference on School Finance. Washington, D. C.: National Education Association, 1967. p. 151-64.

100% State Suppo,t: Boon or Bane?

100% State Share: Boon or Bane?

Stanley Hecker

THE PLANNING COMMITTEE of the Committee on Educational Finance set my topic, "100% State Funding: Boon or Bane?" I do not consider the issue of state funding to be either a great blessing or a foul curse. To me it is rather the lesser of two evils. In state after state, the financing of public elementary and secondary education is reaching, or already has reached, the crisis stage. Solutions that call for more of the same do not seem to work. There is a general and spreading rebellion by property taxpayers. Something has to change.

I am sure that I was asked to participate in this program and speak of the blessings of 100 percent state support because my home state is in at least as much trouble as any and because proposals made in Michigan have received nationwide notice in the press.

Supporting the proposition for a fully state funded educational program, I shall make the following specific points:

1. Our present funding plans are not meeting the American commit-ment to equal educational opportunity for all.
2. Local control is not necessarily a function of the degree of local financing of education.

The constitution of the state of Michigan provides: "The legislature shall maintain and support a system of free public elementary and secondary schools." The legislature in Michigan, as in most states, has elected to carry out this constitutional mandate by creating a system of local school districts. As recently as 10 years ago, there were more than 2,000 local districts in the state. The number has been declining steadily as small rural districts have been consolidated, not always happily. Today there are approximately 600 school districts, varying from a one-room school serving 20 pupils to the school district of the city of Detroit with its complex system of about 300,000 pupils. In addition to this wide range in enrollment, these 600 schools districts vary nearly as much in their "ability" to support public education from local funds. The poorest district, for tax purposes, has approximately $2,000 in taxable property as measured by a state equalized valuation behind each pupil. The wealthiest district, by the same standards, has $60,000 worth of taxable property to support each pupil. Ignoring the

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extremes, either in size or in the "ability" of the district to support education locally, let me draw, from less extreme variations, an example of the dilemma we face. Within Wayne County, the county that includes Detroit, are two nearby school districts; one has an equalized property valuation of $40,000 per pupil, and the other has $7,000 in valuation per pupil. Both districts are levying taxes against their local property at the rate of 25 mills per thousand for the current operation of the schools. This is approximately the average millage levied for schools in the state. In the wealthy school district this millage produces $1,000 in local property tax per pupil while the millage in the poor school district produces $175 per pupil.

The present Michigan State Support Plan already provides a degree of equalization in the finances available: $50 in state support per pupil in the wealthy school district and $410 per pupil in the poor school district. This sounds like a grand equalization; but ignoring other minor sources of revenue, it turns out that the wealthy school district has $1,050 to spend for each pupil while the poor school district—one that is making an equal effort locally to support the school program—has $585 to spend on each of its pupils. These are neighboring school districts. Perhaps some will see it as ironic that the wealthy district is the headquarters for a major automobile manufacturer, that its population is overwhelmingly white and middle or upper-middle class; the population in the poor school district is nearly 100 percent black and all lower or lower-middle class, many of whom are employed by this same firm.

This contrast is not an isolated case. A study funded by the legislature and directed by J. Allen Thomas in 1967-68 found that local school districts in Michigan were vastly different in ways that are important to good schools: teacher qualifications, quality and quantity of local administrative leadership, breadth of curricular offerings, and availability of such support as guidance services, libraries, special education programs, and vocational education programs. Thomas reported that these differences were related to the variables of school district size (pupil population), wealth (property valuation per pupil), per-pupil expenditure level, and geographic region. He showed that when two of the variables, size and geographic region are held constant, the two other variables, wealth in terms of property valuation per pupil and per-pupil expenditure, are inter-related. The wealthier school district consistently expended more dollars per pupil and was found to have a better qualified staff, more and better administrative leadership, and a much broader educational program than did the district of the same size in the same region that had a low valuation per pupil and spent far fewer dollars on each pupil.

Yes, the Michigan legislature can be said to have met its constitutional requirement to "maintain and support a system of free public elementary and secondary schools." But what of the American commitment to equal educational opportunities for all children regardless of their race, creed, or place of residence. Is the state *really* meeting its mandate? There *is* a relationship between the expenditure per pupil and the amount of educational opportunity per pupil. Significant variations in expenditures make significant differences in opportunity. People realize this. They are challenging in the courts state distribution plans that permit large differences in total financial support per pupil. Where they have rendered decisions, the courts

49

have held that rather than seeking judicial relief the people should be addressing their questions to the legislative bodies of the state. This is a major factor in school support legislation introduced in the Michigan legislature during the past several months.

Complicating the situation in Michigan was the passage of Public Act 379 by the legislature in the mid-1960's. This Act provides to public employees (including teachers) the right to organize and the right to bargain collectively for wages, hours, and working conditions. Rulings of the state courts and of the Michigan Employment Relations Commission have broadened the impact of this law by defining working conditions to include such points as pupil-teacher ratio and class size that have direct economic impact. The economic effect of this new-found "teacher power" is probably best reflected in the fact that the average salaries of Michigan Public School classroom teachers, as reported by the National Education Association, have increased from $6,650 in 1964-65 to $9,823 in 1969-70. In the ranking of states, Michigan has moved from 11th position in 1964-65 to 3rd in 1969-70. These salary improvements, inflation, and improved programs of education for boys and girls have all contributed to heavily increased costs of education.

The financial support for the increased cost of education has been borne, as always, by two major sources of revenue: state funding and local property taxes. In the mid-1960's Michigan imposed a state income tax (individual and corporate) to supplement the 4 percent sales tax levied on all retail purchases. Despite the increased state tax revenues that were reflected in increased dollar support by the state for public elementary and secondary education, the percentage of the total operating cost of public elementary and secondary education that the state furnished actually declined. As it would be in most other states in the union, the added burden on the local scene was borne by the property tax. Local property taxes have increased annually in total, in rate, and in tax base to meet the rising costs of education. The districts that have a high tax base have found it much easier, and the voters generally more willing, to support the added costs of education than have other districts with low, inadequate local property tax bases.

Property valuations in Michigan are currently equalized at the state level for school purposes at approximately 50 percent of estimated fair cash value. Although not yet perfect by any mea: ire, tax administration and assessment practices have improved markedly in this past decade. But we have another and growing problem. The wealthier (high valuation per pupil) school districts are becoming more wealthy and the poor school districts are becoming relatively even poorer. Let us use again the two districts we cited above as actual examples. The wealthier of the two with a valuation per pupil of $29,000 per pupil in 1960 enjoyed an increase to $40,000 valuation per pupil by 1969. The poorer school district that began the decade with a valuation of $5,000 per pupil a decade later had an increase in this valuation to $7,000 per pupil. The difference in equalized property tax valuation per pupil between the two districts had increased from $24,000 per pupil in 1960 to $33,000 per pupil in 1969.

The teachers, other professional staff, and the nonprofessional staff of the poor district demanded as much in the way of economic benefits and

working conditions as were available to the employees of the neighboring wealthier school district. Despite the equalizing effect of the Michigan State School Aid Support Plan, the significant variation in local taxpaying ability made it possible for the wealthier district to provide higher salaries and better working conditions than were provided in the poorer school district. Striving to maintain a competitive position, the poorer school district met significant obstacles. It could cut its non-salary budget items only so far. Since average class size and even limits on actual class size were negotiable, it was limited in this direction. Because it had for many years been spending fewer dollars per pupil than its wealthier neighbor, the poor district had, on the average, larger classes to begin with. If anything, this district's teachers might be expected to be negotiating the more strongly to reduce the number of pupils in the classes. Work stoppages, threats of work stoppages, lost millage elections and deficit spending have become the order of the day and not only in the poorer districts. Many of us in the state believe we are reaching a crisis.

During the summer of 1969, Governor Milliken appointed a special Commission on Education Reform. The Commission, under the chairmanship of the governor, held extensive hearings during the summer and fall of 1969 and issued its report in early October 1969. Included in the report was a proposition for total state funding for a state program of education. A special session of the legislature in October received an education message from the Governor followed by a series of bills relating to educational reform. Included in the reform package were: (a) a school reorganization bill to reduce the number of local school districts from approximately 600 to approximately 300, (b) a bill to reduce the number of intermediate school districts from approximately 65 to approximately 15 and to make them arms of the state (Intermediate school districts in Michigan are ser.ice oriented districts providing specialized services to local school districts and formed by combinations of local districts.), (c) a constitutional amendment to eliminate the state board of education as presently constituted and to substitute a board appointed by the governor with the approval of the senate, (d) a constitutional amendment to eliminate local property tax as a source of revenue for local school districts and to substitute a state-wide property tax in its place, and (e) a proposal for the enactment of an educational-services-needed support plan which would be based upon a variety of pupil-teacher ratios and supportive services as measured by a classroom unit. These educational-services-needed would be translated into dollar-need based upon the current level of training and experience of the professional staff, and a fixed dollar grant per unit for in-service education, research and development, and for other current expenses. Full state funding of transportation costs was also recommended. Two of the proposed bills - state property taxation and the services-needed approach - received favorable editorial comment in many parts of the state and the country, and comments ranging from "interesting" by Commissioner Allen of the U. S. Office of Education to enthusiastic support by former Harvard President James Conant.

Legislative action on the package of bills has been minimal. Reasons for this inaction are varied. First, the governor is a Republican while the House of Representati e is controlled by the Democrats. Second, even during a phasing

in period of three years the proposals would require substantial additional state taxes—and 1970 happens to be an election year for all House and Senate members as well as for the governor. Third, both inside and outside the educational community, many people question the centralizing of control inherent in many of the governor's proposals. Finally and perhaps most importantly, the governor's proposed bill embodying the distribution formula contains a section which would allocate funds to support the salaries of teachers of secular subjects in private and parochial schools. The word "parochiaid" has become a household word in our state.

The rationale underlining the basic recommendations contained in the Michigan education reform proposals was enunciated in a 1963 publication by Professor John K. Norton when he wrote:

State action in providing public school support is based on a number of considerations: First, state constitutions make the maintenance of public schools that are open to all a responsibility of the state legislature. Second, educational opportunity is the right of every child. Third, education of all children is more than a matter of local concern. Mobility of population quickly spreads the effects of good schools as well as of poor schools. A state cannot afford to have the quality of its human capital diluted by lack of financial ability or willingness to maintain effective schools. Fourth, since communities differ so widely in ability to finance schools, state support is essential if gross inequalities in the financing of public schools and inequitable tax rates, in different school districts, are to be prevented.[1]

The basic plan which we are advocating for Michigan would commit the state to a fairly simple proposition: that the state is wealthy enough to pay for a good educational system for all boys and girls and that it is absurd to have within the state pockets of both educational privilege and educational deprivation. Dependence upon unequal local tax bases, unequal local leadership and unequal local voter willingness to support equal educational opportunities is absurd.

Would "100 percent state funding" destroy local control of education? To what degree does "local control" exist? Teacher certification standards are determined by the state. The minimum length of the school year—even the minimum annual total number of hours of teacher-pupil contact in our state—is set by the State Board of Education. Building plans and bonding proposals must be approved by state agencies. Accreditation of educational programs is a function of the state agency or a nongovernmental regional accrediting association. Many specific programs—special education, transportation, financial and pupil accounting, federally funded grants—are closely regulated. School attendance areas, dress codes, codes of pupil conduct, etc. are subjects of nonlocal judicial decision. The "whip-saw" effect of local school district professional and nonprofessional negotiations has made decisions on salary, hours, and working conditions more a function of what others are doing (or are able to do) than on what conditions actually prevail in the local district.

Despite the 100 percent state funding plan proposed in Michigan, the local school districts would continue to make most educational decisions. The local district would select a local board of education which would appoint the district's chief administrator. Other professionals would be recommended for employment by the superintendent. Within the limits of state-mandated

pupil-professional ratios individual class sizes could be varied. Promotion and transfer policies, leaves, in-service education programs, curricular and textbook policies, and employment standards would be locally negotiated. *Who* would teach *what* would continue to be a local decision.

As pointed out by Lindman:

For more than half a century efforts have been made to "equalize" educational opportunity and school tax burdens by various plans for distributing state funds to local school districts. These efforts have produced more controversy than equalization.[2]

In the same article Lindman introduces the subject of full state funding as follows:

The suggestion that state government should assume full responsibility for financing public schools is not new; it has been proposed in the past and generally rejected. But Dr. Conant's recommendation that this proposal be reexamined in the light of new conditions and problems deserves thoughtful consideration. Perhaps this is an idea whose time has come.[3]

Footnotes

[1] Norton, John K. *Changing Demands on Education and Their Fiscal Implications.* Washington, D. C.: National Committee for Support of the Public Schools, 1963. p. 96-97.

[2] Lindman, Erick L. "The Conant Plan—Shall the States Take Over the Financing of Schools?" *The School Administrator,* February 1970, p. 11.

[3] *Ibid.*

100% State Support: Boon or Bane?

Duane J. Mattheis

IT WAS WITH SC E RELUCTANCE that I accepted the assignment of making a few comments in opposition to the proposition of 100 percent state support. This was partially because of the reservation of speaking against something that is developing a "band wagon" momentum, at least in educational if not in political circles. And then when I received the actual topic, "100% State Support: Boon or Bane?" I became apprehensive. The "Bane" portion I was to address my comments to seemed to put the case n..:e strongly than I thought possible to be convincing. Webster defines bane as: "that which destroys life; esp., a deadly poison;...ruin; woe; esp., destroying or ruining cause; source of irreparable harm." Now I think many of you would agree with me that "bane" might be making the case against 100 percent state support just a little stronger than it really might be in actual practice.

At any rate, whether 100 percent state support is good or bad for the future financing of public elementary and secondary education is the real question and I shall address my few comments to that point.

To begin with, my being removed from legislative combat for nearly one year and from life as a practicing superintendent for nearly six years must necessarily qualify and bias my observations.

It is not at all difficult for me to assemble a relatively long list of reasons to advocate the proposition of 100 percent state support for public elementary and secondary education; you have heard them all, and with seemingly increasing frequency and urgency.

School administrators and board members during the last few years have been experiencing greater frustration and stronger feelings of helpless-ness as they deal with teacher negotiation problems and procedures. Many have somewhat reluctantly come to feel that the problem of resolving teacher-board negotiation differences is greater than can be handled at the local school district level, that they have had to spend an inordinate amount of time and energy in an effort that bears more bitter than sweet fruit, that increasingly the educational p.,ucess is being disrupted by teacher-board inability to arrive at acceptable compromise, that factions within the community supporting one side or the other are becoming less tolerant of

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teacher-board impasse, that both teacher and board groups are becoming apprehensive about the level of increased taxation the local property tax can assume in financing education, and finally, that inevitably when great difficulties arise within a district, there is some direct or indirect reference to possible solutions from legislative, or some other state body action. There is not much question, and many obvious reasons, why 100 percent state support looks pretty attractive as a method of eliminating a sizable portion of these very real problems.

The mounting opposition to the property tax financing the increased costs of education comes in the form of taxpayer associations actively fighting increased education expenditures and the increasing opposition to passage of tax levy increases and bond issues. School tax levies and bond issues are two of the very few instances when voters have an opportunity to vote for or against tax increases and, unfortunately, taxpayers use this vote to express opposition to something far larger and complex than the immediate educational question. However, the disastrous effect of the negative vote on education may be quickly observed. It is not difficult to imagine the relief and serenity that would be present if 100 percent state support could remove these onerous tasks and problems from the life of the school administrator and board member.

Another problem that has nagged the conscience of all of us in education for too many years is that of equalizing the availability of financial resources for each child in a given state. Although many states have identified ways to bring about equalization, insufficient political muscle has prevented them from being enacted and put into practice. A program of 100 percent state support could bring about at least an immediate equal distribution per child if, in fact, not a distribution based on educational need.

Before we adjourn to dancing and rejoicing in the streets at the prospects of 100 percent state support eliminating problems of teacher-board negotiation, tax levy and bond issue votes, and equalization of educational resources, let me say a few words of concern and caution. Without adding to the myth of local control, let me point out some interesting observations relative to the 100 percent state support proposition and the three problem areas—teacher-board negotiation, tax and bond votes and equalization.

The first observation is very clear. When conferences and seminars are being held, state legislation is being enacted, and innumerable books and articles are being written on decentralization and community control (with the inclusion of the more important and understandable words of "participation" and "involvement"), the 100 percent state support proposition very clearly removes a very important means of local participation and involvement in the affairs of the public school districts. The give and take within the school district, informing, enlightening and selling the needs of education to the electorate have been a healthy and productive long-term effort for everyone concerned. A headache? Yes. A great deal of work? Yes. Frustrating? Yes. Occasionally detrimental to the short-term education of some children? Yes. Beneficial to the long-term best interests of public education? Absolutely. What can be substituted for this method of informing the local citizens and involving them in their public schools? And will it be a

meaningful exercise or simply window dressing? Our past responsibilities have caused us to work hard to constantly improve our methods of involving and informing our various publics in order to secure their support for needs that we have identified. Although the tasks have been demanding, we and public education have benefited by being forced to work at them. The job of selling would be moved from the local citizens to the state legislature. I have some reservations about the long-term success of such a group, removed as it is from the immediate knowledge and concern of the local school district.

Moving teacher-board negotiation on salaries, from the local to the state level, which would surely follow adoption of a 100 percent state support proposition, would not eliminate the problem; it would merely shift it from one level of government to another. Such a change could result in state-wide stoppages rather than work stoppages in a few isolated school districts around the state as has generally been the case in the past. It also would quite obviously eliminate a thorny problem from the immediate concerns of local school superintendents and board members. It would most certainly be an easy way out of a troublesome relationship. In addition, the negotiation of a state contract would eliminate a myriad of ways which have enabled school districts to innovate, experiment, and yes, compete. The more pertinent question of whether the shift from local to state level would improve the educational process is more difficult to answer.

Equalization of educational opportunity, with its necessary component of equalized access to financial resources, has long been a goal of public education. It could be argued that distribution of education funds from a central state source would more nearly equalize the financial resources behind each child. It is somewhat difficult to accept this premise, however, when increasing evidence shows very clearly a great deal of unequal distribution of resources within single school districts and in some large urban districts. Are we so naive as to believe that with 100 percent state support these same problems would not be ever present, and perhaps more difficult to identify and resolve? Although many states have identified state aid formulas that would come much nearer to true equalization than the particular formula they may be using, the fact is that we have been unable to muster the necessary political support to implement a program of taking from the rich and giving to the poor except to a very limited degree at best.

One of the loudest cheers raised by the implementation of a 100 percent state support proposition comes from critics of the property tax as a measure of wealth of a school district, a measure almost totally and uniformly used across the nation. The property tax, with the attendant problems of poor assessment practices and large segments of property exempted from taxation, has come under increasing criticism as a tax that is regressive, difficult to administer fairly, and much less of a realistic measure of school district ability to pay for public education than it was at its inception a half century ago. All these things are true, but I again remind you that two of the greatest problems in this area, tax assessment practices and tax exempt properties, could be either resolved or dealt with so as to make them far less troublesome than they currently are if we would only gather the necessary political support to do so—overhaul the assessment procedures and

deal firmly with the entire matter of tax-exempt property. Governmental or interested public groups have made recommendations that would improve these difficult situations immeasurably, if the political forces would only muster the courage to implement them. The change from reliance on the property tax to 100 percent state support would make life easier for a number of people; whether it would lead to improvement of the educational process has really not been adequately discussed yet.

The principle of 100 percent state support smacks too much of the "let someone else do it" philosophy. And that someone else is simply a larger collection of us the people. Is there any evidence that 100 percent state support from the legislatures across the country would improve the educational system and process? I have not seen such evidence. One analogy (a poor one I will admit) is that of the historical treatment of state departments of education or public instruction by their respective legisla-tures. Most legislatures have dealt far less well with their own state department of education than local citizens and school-board members have done with the school district operation. State departments of education have too often been saddled with line item budgeting, inadequate staff, and salary schedules that do not compare favorably with a large number of school districts in their respective states. Except for Title V of the Elementary and Secondary Education Act of 1965, which provided funds to strengthen state education agencies, many of these same agencies were existing on a level of economic deprivation that put them in the poverty class of public education enterprises in their state. Many will say that the quality of these state agencies causes their poor state support. If this were true, as it well might be in some states, I would only argue that financial curtailment by the legislature will only worsen, not improve, the situation. Think of the loss and retrenching that would occur in public education if school districts were to receive treatment from the legislature comparable to that of many state departments of education. In fact, a case could quite easily be made of the possibility of state fiscal autonomy being a very restrictive and inhibiting system insofar as quantity of money for public education is concerned.

For some time, political forces—mayor, city council, county commis-sioners, legislators, or governor—have been envious of the fiscal and operational independence of school districts. Are we so eager, because of complex and troublesome problems that are causing so much grief and gnashing of teeth in local school districts, to unwittingly put ourselves into a position that could seriously retard the unexcelled thrust toward excellence of our public education system?

Another factor that should not be taken lightly in consideration of the 100 percent state support proposition is that of the degree of involvement, supervision, restriction, or red tape, which would follow increased funds from the state. Substituting dealing with a state bureaucracy for local pressure groups might well be too great a price to pay for the welfare of public education.

In summary, let me reiterate that I question not one whit that a 100 percent state support program would make life somewhat easier for school administrators and board members. However it seems to me that is not the

question that ought to be asked at all. Or, in deference to those school
administrators and board members who labor unceasingly with these difficult
and complex problems, certainly it ought not to be the only question asked.
The critical one is whether a program of 100 percent state support can
improve public education more than alternative modifications of current
systems. At this point we have not seen the alternatives with their costs and
benefits enumerated in a clear enough manner so that a rational decision can
be made in this vital matter. I fear that if action is taken without this kind of
study and examination that our cure for the present perplexing problems in
financing education might well be worse than the disease itself. In my
judgment there has been insufficient evidence put forth by the proponents of
the 100 percent state support proposition to answer yes to the question of
whether public education and the whole educational process will be improved
by such a change. Until we can answer yes to that question there are
innumerable modifications of present systems that could most assuredly
provide for some improvement, and they can be achieved if only we have the
courage and stamina to work them through to implementation.

A program of 100 percent state support might not be a "bane"—"that
which destroys life", "a deadly poison," "ruin," "woe," "destroying or
ruining cause," or even a "source of irreparable harm"—but on the other hand
it should be made unmistakably clear that it is not a panacea for all
teacher-board, taxation, and equalization problems in public education.

57

Tax Reform: Federal-State-Local

The Relation Between Federal Tax Reform and Education Expenditures

Henry J. Cassidy

THE USUAL TYPE of federal tax reform suggested around this time each year is the reduction of the amount of taxes we have to pay. To hold such a notion is healthy, regardless of whether it occurs to us just once or many times each year, for it is a primary function of taxes to make explicit the price we must pay for the services the government provides. We should be economical in the use of our country's resources, being careful not to allocate too much of our resources to one use as opposed to another. When we believe that our taxes are "too high," we reconsider whether we have allocated too much of our resources to the public as opposed to the private sector, and in this way taxes act as a relative price, the price of publicly supplied goods as opposed to the price of privately supplied goods. I like to believe that this is the most important function of taxes in our federal system. Its performance requires that we are conscious of our tax load. Whether a direct tax such as the income tax makes us more conscious of our tax load than an indirect tax such as a tax imposed on manufacturers is a moot question.

Sound fiscal policy requires that we recognize the importance of taxes as a broad resource allocation device. Regrettably, fiscal policy has been focused too heavily on short-run economic stabilization, and the pursuit of this elusive objective has been costly in terms of the losses we have sustained with regard to effective allocation of our resources. Federal government expenditures for education are a case in point. The vigorous efforts to curb the increase in federal spending, in the interest of reducing inflationary pressures, resulted in many casualties among federal spending programs, including education. This is not to say that curbs on the growth of federal spending are inappropriate, but rather that in placing so much emphasis on economic stabilization as an objective of fiscal policy we have played down the role of the fisc in achieving a more efficient allocation of the country's resources.

These resources are limited, and the central objective of public policy should be to contribute to their most efficient use. For example, there is a widely held view that additional resources committed to providing education

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60

would add more to the country's well-being than would be lost by allocating them away from other uses. Whether this view is correct, I cannot say, but it is the explicit purpose of fiscal policy to determine whether more or less resources should be allocated to various public programs or to private uses.

The price effect of taxes can serve as an efficient mechanism for allocating resources between the private and public sectors, provided we allow taxes to perform this function. If we set other goals for tax policy, the price effect of taxes is likely to malfunction, with consequent adverse effects for the efficient allocation of resources. The result is a waste of our resources. In lieu of such other goals, we should restrict the use of the tax mechanism to informing the public about the price of alternative levels of public spending.

Decisions about the level of public spending, of course, are not made independently of the composition of public resource use. Ideally we want to allocate resources among public services so that we cannot increase our aggregate welfare by distributing them in any other way. Maximum aggregate benefit is achieved with respect to the allocation of resources among public services when the last dollar devoted to one use creates the same amount of benefit as it would if it were devoted to any other use. Given an optimum composition, the pricing of the total basket of public services by imposing taxes in equal total amounts permits the public to evaluate the benefits of the "last" dollar of public expenditure against benefits of the "last" dollar of private spending. The collective taxpayer will think that his taxes are "too low" if the benefits he receives from his last dollar would be greater if spent on publicly provided goods than on private goods. Hence, he will vote to increase taxes and increase federal expenditures until his last dollar spent on public goods (through taxes) yields the same benefit as his last dollar spent on private goods. The same collective taxpayer may prefer, of course, a different composition of federal expenditures, whether of the same or of a different total amount, and, ideally, the political process will reflect this choice as well. But to repeat, for this choice to be made effectively, the amount of taxes imposed must act to "price" out the public vs. private resource allocation.

Allocation

The federal tax system has other price effects which relate to the level of education expenditures. Taxes can and do act as an explicit price in private sector decisions. We allocate resources among private goods on the basis of their relative prices. The price mechanism acts as a guide to how much of one private good should be produced as opposed to another. Every tax we currently have in this country alters the relative prices of private goods from what they would be in the absence of the tax system. The amounts of the various goods provided, then, may be altered by the price effects of the tax system. The federal income tax, for example, increases the price of money income generating activities relative to activities which do not yield money income, such as leisure time activities. The existence of the tax, then, is likely to alter our behavior patterns if we are free to alter them.

How do taxes change relative private sector prices so as to alter the amount of expenditures on education? The federal tax system does not allow personal deductions for education expenditures, unless they are necessary to

maintain one's employment. On the other hand, the federal tax system does allow deductions for investments in nonhuman capital. Businesses are allowed depreciation deductions and investment tax credits, the latter if it is the whim of the Administration to so allow them. The Tax Reform Act of 1969 has removed the credit. The depreciation deduction, the remaining tax feature, lowers the cost of this capital from what it otherwise would have been; the after-tax rate of return is higher with the depreciation deduction than without it.

A person at the margin of indifference on whether to spend his money on an investment in himself through education, or on an investment in a durable physical asset for a business concern, will be swung over to the durable asset if depreciation deductions are allowed on it but are not allowed on the education expenditure. In general, then, the depreciation feature of the tax system discriminates against investment in human capital. The tax system has altered the price relationship between human and nonhuman capital. The result is that there is likely to be a reduced amount of education expenditures from what there would be without these tax provisions. Under our present education system, this argument applies more appropriately to advanced education, since primary and secondary education is primarily publicly provided.

To make the tax system neutral, or nondiscriminatory between human and nonhuman capital, the tax system must treat expenditures on each equivalently, so that the price relationship of the two is unaltered from what it would be in the absence of the tax provisions. If we assume that there is nothing we can do to alter the system of depreciation deductions on physical assets, the suggested tax reform for the purpose of attaining neutrality is to construct an analogous depreciation deduction for human capital.

There is, however, an additional feature of the tax system which, if we did have equivalent depreciation deductions for human and nonhuman capital, would discriminate against nonhuman capital. This feature is the capital gains tax. If physical assets appreciate in value, the gain in value is taxed (when it is realized), but an increase in value of human capital is not taxed. Human capital is just as likely to appreciate in value for the same reasons as nonhuman capital does. If the capital, both human and nonhuman, represents a specialized use of resources, which it usually does, and the market, or demand, for those specialized resources expands, the capital will appreciate in value, at least until such time as further resources can be committed to the specialty. The capital gains tax on physical assets, then, would discriminate against the nonhuman form of capital.

There are two solutions for eliminating this nonneutrality. One is to construct a capital gains tax for the appreciation in the value of human capital attributable to education expenditures. Such a tax would be extremely difficult if not impossible to construct. It is possible to measure the change in the value of human capital only when the income-earning portion of the lifetime is over, for the value of human capital at any point in time is the discounted value of the future income stream. The actual size of the income stream is known only after the income-earning portion of a person's life is over. But more difficult for tax purposes is the segregation of

62

that portion of the gain in the value of the human capital which is attributable to education as opposed to that portion attributable to innate talent.

The alternative is to eliminate the capital gains tax on nonhuman capital. I favor this route for academic reasons which deal with the definition of income. However, this need not detain us here. The elimination of the capital gains tax would be, in my opinion, by the way, tax reform in the true sense of the word.

One may venture the opinion that we currently do have a more or less neutral tax system with respect to education expenditures because the depreciation deduction bias against human capital is offset by the capital gains tax bias against nonhuman capital. I am very uneasy with this proposition, because the calculations upon which the proposition rests involve too much guesswork; for example, we can only guess at the amount of gain in the value of human capital attributable to education. The alternative which should be preferred to attain neutrality of taxes, then, is complete elimination of all biases, regardless of their direction.

The Distribution Function

The allocation function is but one of the functions of the fiscal system. Another function is distribution, which concerns who receives the fruits of our productive society. Education expenditures presumably benefit those who make them, but to education is also attributed the potential for increasing the welfare of people who do not receive the education. If education reduces in the person who receives the education the amount of prejudice he has toward other groups in the population, this person may be in a position to expand the opportunities of these groups by offering them employment not previously available to them, for example.

Tax policy is able to play only a very limited role in the redistributive process, and that role is to encourage more people to partake in the educational process. The only way the tax system can do this is through its price effects. The tax structure can lower the relative price of investment in human capital, for example, precisely along the same lines as we discussed under the allocation function.

However, I should like to warn against the use of the tax system as a means of encouraging education expenditures. It is generally more effective to increase education expenditure by direct government outlays than to rely upon the indirect subsidy of the tax system. The magnitude of the increased expenditures is known exactly with direct government expenditures, but the magnitude is unknown beforehand in the case of the tax subsidy. Direct federal expenditures on education have been and are continuing to be made; thus there is little reason to rely on the tax system as a redistributive mechanism at this point. Therefore, I hope that there will not be any tax reform in the direction of encouraging education expenditures.

It is important to note, however, that if the tax system were to be used for redistributive purposes, it can do so only through the price effects of taxes. It can only do so, therefore, with the unavoidable consequence of a

conflict with the allocation function. I heartily recommend that we avoid such a conflict.

The Stabilization Function

There is a third function commonly ascribed to the federal Govern-ment, stabilization, which conflicts directly with the allocation function. The goals of stabilization are the maintenance of price level stability and full employment.

Tax policy, as it has been advocated by the "new economics," is a primary device for attaining these goals. Taxes are to increase relative to government expenditures to ward off inflation, and taxes are to decrease relative to expenditures to ward off recession.

The conflict between the stabilization and the allocation functions is obvious. Taxes are to act as the explicit price of public goods according to the allocation function. To be explicit prices, taxes must be in one-to-one correspondence with government expenditures. To accomplish the stabiliza-tion function, taxes must *not* be in one-to-one correspondence with government expenditures. The stabilization function operates by deliberately creating a government surplus or deficit as the economic conditions warrant.

One may argue that the changes in the surplus or deficit for stabilization purposes are short-run, and that for the long run, federal revenues do come into one-to-one correspondence with federal expenditures. Therefore, it may be argued, the allocation function is being fulfilled at least in the long run. However, I think we are being slightly naive if we take such a view. The explicit price effects of taxes work in the short run as well as in the long run. Witness the arguments that went into the extension of the income tax surcharge two years ago. Tax rates could be raised, many Congressmen said, but simultaneously, as part of the package, federal expenditures must be cut. Tax and expenditure policy, in other words, was being based upon stabilization considerations and not upon allocation con.iderations. Indeed, stabilization policy does not distinguish between changing tax revenues on the one hand or changing public expenditures on the other, except for considerations of the speed with which the various components can be changed. Allocation policy, on the contrary, calls for a precisely determined one-for-one change in revenues and expenditures. If this relationship is broken, in either the long run or in the short run, expenditure policy is likely to be based upon considerations not consistent with the efficient use of our country's resources.

Resolutions of the Conflict

How do we resolve this conflict? I do not advocate that we resolve it by selecting that function which we believe to be more desirable. If we were to make such a selection on the basis of our preferences, I might select the allocation function as being served first, while another person would favor the stabilization function. Rather, the decision may be resolved by examining how well each function is carried out by the federal tax system. I assume that the explicit price effect of taxes is operative, and that the political mechanism

64

does respond to this price mechanism, on the assumption that the price mechanism is given the chance to function.

On the other hand, I think that there is a rather large body of evidence, both empirical and theoretical, which shows that the use of tax policy for stabilization purposes is for the most part ineffectual. We have had inflation throughout the 1960's, but along with substantial unemployment in the first half of the decade. Maybe it is not possible to obtain full employment along with no inflation by fiscal manipulations. Our postwar experience certainly seems to indicate this.

Even if both full employment and price level stability were simultaneously attainable, with the present state of the art we should abandon the use of tax policy as a short-run stabilization device, and I will give here two of the reasons why I hold this opinion. The first is the accuracy of the forecasts upon which the tax changes are prescribed leave something to be desired, and the second reason is that the relationship between the change in taxes and the change in employment and prices is not very stable, hence not very usable for stabilization purposes.

The Council of Economic Advisors has since 1962 estimated the level of economic activity for one year in advance. Upon their forecasts, tax policy recommendations for stabilization are based. Over the period 1962-1969 they have missed the increase in Gross National Product, our main economic indicator, by over 20 percent, on the average. They have forecast below the actual annual increase by as much as 19 percent, and have forecast above the actual annual increase by as much as 39 percent. The observation that these forecasts have been rather poor, means that until they become better, we should not alter our tax rates in the short run on the basis of the forecast of the Council.

The other reason for not using tax policy as a short-run stabilization device is the relationship between tax changes and employment and prices is not very stable, and the variations in its pattern have not been empirically measured to determine whether they are systematic. When your tax liability increases, such as under the income tax surcharge of 1968-69, do you change your expenditure pattern from what it otherwise would be? If you thought that the tax change was temporary, you might not change your expenditure pattern at all; rather you might only reduce your savings, or borrow, to maintain the level of expenditure to which you are accustomed. It may be that your expenditure pattern is based upon your expectations of what your lifetime income will be, so that temporary changes in tax liability have no significant effect upon your expenditure pattern. Would your response to the surcharge have been different if you thought that there was the possibility of a recession in a year or so? Your response might be to reduce your expenditures more in such an event with the surcharge than if it were not levied. What if we had just recovered from a prolonged recession and your accumulated savings were low? The surcharge in this event may very well limit your expenditures.

These observations only hint at the type of information which must be available in order to estimate the effect any tax change will have upon spending and, hence, upon employment and prices, according to the

framework of the "new economics." Not only can you vary the absolute magnitude of your respons: to any tax change, but you can also vary the timing of your expenditure response. Both of these can vary with any given set of circumstances, and the combined effect of the magnitude and timing of the response is unknown in general. Use of the tax system for short-run stabilization purposes, then, becomes a guessing g: ine, and until we know more about the system of response, we should avoid using tax policy for such purposes.

If Not Stabilization, What Then?

A basic policy recommendation, then, is to abandon the use of tax policy as an instrument to attain short-run stabilization. There is no reason, if this recommendation is accepted, to purposefully strive for a federal fiscal deficit or surplus. Rather, we should strive to equate the long-run growth rate of federal taxes to the long-run growth rate of federal expenditures, with no deficit or surplus for the long run. Deficits and surpluses will arise, of course, because there will be year-to-year fluctuations in income and hence in taxes. But tax rates are not to be adjusted to compensate for these swings in income, or we shall be right back to the essentials of the short-run stabilization game. Rather, the tax rates should change by a prescribed rate each year or be set at certain levels so that the long-term trend rate of growth of taxes matches that of federal expenditures.

Summary

We have examined the relationship between tax policy and education expenditures according to the three functions of government, allocation, distribution, and stabilization. Under the allocation function, we have explored one possibility of federal tax reform to eliminate any fiscal biases for or against education expenditures by individuals. We could incorporate a depreciation write-off for tax purposes for individual education expenditures similar to the depreciation write-off for investment in durable physical assets, and simultaneously eliminate the capital gains tax. To change the depreciation feature without changing the applicability of the capital gains tax would be only a partial adjustment toward the goal of neutrality of taxes with respect to education.

Under the distribution function, we must question the efficacy of using the tax system as a means of encouraging education expenditures as opposed to direct federal expenditures, if education expenditures are desired for redistributive purposes. In general, the price effects of taxes should not be used to encourage education expenditures, just as taxes should not discourage these expenditures.

I have argued that the stabilization function should give way to the allocation function because the use of short run tax changes by the government has been ineffectual and is likely to continue to be ineffectual for short run stabilization purposes. The allocation function uses the level of taxes as the explicit price of publicly provided goods. Under the allocation

function, tax po'icy should be formulated so as to equate the long run trend in the growth rate of taxes with that of federal expenditures, where the composition and growth rate of federal expenditures are based upon considerations independent of the tax revenue. Federal expenditures on education, then, should be made if they are warranted, and the tax revenues to finance them should be simultaneously raised.

The Dilemmas of State-Local Tax Reform

Procter Thomson

INTERESTED AS YOU ARE in more money for better schools, you wish to reform state-local fiscal arrangements because, I presume, you believe that bad taxes prevent good expenditures. In addition, you may have the reformer's itch, an incurable though benign disease to which none of us is immune.

But I bring you a different view of the problem. Since the cost of public schools equals the private goods that must be given up to support them, the primary problem for American educational finance is not how to tax but how much to tax and spend. And the difference between a "good" and a "had" tax system is nowhere near as large as is commonly supposed. Under modern fiscal conditions, states and localities must extract resources from their citizens through some rough and ready combination of income, sales, and wealth taxes. The combinations they use depend on economics, politics, and accident. To "reform" any of these combinations means to take the same sum from the same place or persons more efficiently and equitably. But since any change in taxes makes some people better off and others worse off, we cannot say for certain that the group's welfare is improved.

Suppose, however, we take an existing state-local tax system, warts and all, and confront the taxpayers with some elegant alternative which, we claim, is better. How much on balance will they be willing to pay for the privilege of being taxed in a more expeditious fashion? The sum, I think, will be very small. Tax reform is small beer indeed; we should leave it and get on with the important business of deciding how much of our national income to invest in the formation of human capital.

Tax Systems: Origins

State-local tax systems emerge from a mixture of economic, political, and historical (accidental) forces. On the economics, all taxes come ultimately from income, but their immediate objects are receipts, expenditures, and wealth. That is to say, they are either income taxes, sales and consumption taxes, or property taxes. All other levies such as the gasoline tax are really user charges or prices. Try as he might, neither the ingenuity nor

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the rapacity of the taxgatherer can provide him with any other weapons than these.

The proportions between these levies, however, vary widely from one jurisdiction to another. Oregon, for instance, abominates the sales tax while Nevada prefers—for some reason—not to tax income. And the jurisdictions that use all three weapons, do so in many different ways, with the most varicolored patterns of coverage, exemptions, and comparative yield.

The Economics

The tax and the expenditure system of any jurisdiction reflects preferences, income, and comparative costs.

By far the most important differences among cities, states, and school districts are their citizens' preferences for public versus private goods. Just as families differ in their desires for food, clothing, and amusements, so communities differ in their preferences for schools, roads, welfare, and qualified but expensive public servants. Differences in income and costs also enter the picture.

So far as the data mean what they seem, these state-local variations are quite striking. In 1968, state-local taxes and user charges took 13.5 percent of personal income in the United States as a whole.[1] But these fractions varied from a low of 10.5 in Illinois and 10.7 in Connecticut to a high of 19.1 in North Dakota and 18.6 in Wyoming. California stood at 16.1, Oregon at 14.1, and Washington at 14.9. Some of the high figures probably reflect the greater unit cost of public services owing to population sparsity, as in North Dakota's 19.1 or Alaska's 17.0. (Price elasticity of demand must also have been less than unity.) South Dakota, also afflicted with sparsity, took only 15.8 percent.

People select the places where they live and work partly on the basis of the tax-expenditure balance. Naturally, people prefer low taxes and generous public services, but such Utopias are hard to find. Faced with marginal choices, therefore, some families elect a locality with good roads and schools plus high taxes, while others select unreliable roads and miserable schools but low taxes. Others select something in between so that, in this way, choice ratifies the variations that chance created.

The Politics

Fiscal differences arise also from political choices and historical accidents.

Politicians wish to maximize their political power, subject to the constraint that they do not violate their ideological convictions. Thus they select the taxes that win the most, or lose the least, votes under the conditions of the time and place. In this way they court the favor or avoid the enmity of the citizens, who are both master and servant to them.

In making these choices they start with what they have, that is with a fiscal landscape strewn with the wreckage of past encounters and the buried bones of old enactments. Then they identify the forces they serve or oppose and estimate the strength of each. Next they design a tax policy which appeals to those they serve or, at least, raises no unnecessary enemies. Then

69

they bargain at the council table with others who serve different interests or have different estimates. And finally in the arena of public discussion, they defend or conceal what they have done.

Small wonder, then, at the variations in fiscal patterns even when economic conditions—preferences, income, and comparative costs—are the same. The politics of various jurisdictions differ because of variations in historical conditions, political interests, politicians' estimates of those interests, and the conditions of implementation.

Schools and Taxes

Now to the question of why school taxes are what they are. As is well known, public elementary and secondary education in all the states derives its sustenance from a mixture of local levies on property plus state sales and income taxes disbursed as basic and equalization aid. The rationale for local property taxes is obvious: The wealth is available; the local tax collector can reach it, whereas he cannot easily administer the other forms of taxation. A local system of income and sales taxes, moreover, would squash the base on which it rests for jurisdictions whose rates are higher than their neighbor's the same happens to property but much less seriously.

What is not quite so obvious, however, is the peculiar combination of advantages and disadvantages which the property tax base creates for education when people—acting through their representatives—vote money for schools in accord with their preferences and their pocketbook. Since the taxes they choose will be directly proportional to their number of children but inversely proportional to their property, the existence of prosperous but childless families tends to lower school taxes. Since good schools enhance property, however, even those who do not use them will be disposed to support them to that extent. Even retired bankers and absentee landlord have an investor's interest in their local schools.

The widespread separation between ownership and residence gives the schools an enormous advantage because the owners of business property who live outside the district cannot vote to keep their taxes down. True, they do have some interest in public education. But the people who live and therefore vote in the district have both an investor's and a consumer's interest in public education. Further, the smaller the school district the smaller is the probability that owners of its business property live and vote within its boundaries, so that the present system of district fragmentation, which promotes "taxation without representation," seems designed to maximize the school tax rate.

Alas for the schools, however, district fragmentation works in the other direction when we consider how people react to the indirect benefits of education: The education of other people's children benefits us because all of us vote in the same elections and participate in the same political dialogue. But the advantages of political literacy come from the informed choices of people both far and near, and cannot be achieved unless education is widely diffused. Therefore, on this account alone, no one is willing to tax himself and his fellow citizens for the education of those who live only in his immediate vicinity, so that small districts mean low taxes. For the small

district, therefore, the level of school taxes depends only on the balance between the tax burden and the direct benefits of education.

The final factor deals with the way these preferences are translated into action through the political process. As stated above, the professional politician maximizes his political power just as the professional entrepreneur maximizes his net returns. In voting for taxes as for everything else he seeks that combination of burdens and benefits which optimizes his support among his constituency and his colleagues. This is how representative government in a democratic society translates individual preferences into social choices.

But what about the government of local schools? It, too, is "political" because it deals with social choices, in an institutional framework, through a representative body—the local school board. But board members are seldom full-time professional politicians and often regard their office as a duty rather than an honor. As part-time amateurs they can express their convictions, ventilate their prejudices, and ignore the wishes of their constituents with respect to the tax rate and to many other matters as well. In the short run, therefore, the schools may not respond to the wishes of the people quite so closely as some other parts of government. Not in the long run, however. School-board elections and tax referenda must eventually prove decisive, so that the board that spends too much or too little, or spends it on things the people do not want, will finally be turned out of office.

Tax Reform: How

State-local tax reform entails both economic and political problems, and the central issue for both is that any change from existing conditions makes some people better off and others worse off.

The Economics

A change in policy increases social welfare, an economist would say, only if it makes one or more persons better off without making any one else worse off. The literature of welfare economics calls this proposition "the strong welfare criterion." So far as it goes, it is both intuitively attractive and analytically rigorous, but unfortunately, sheds little light on the hard problems of social change which do entail improvements in some people's lot at the expense of someone else.

Tax reform illustrates. Recently both California and Oregon made much ado about "property tax relief." The voters of Oregon in June 1969 considered a proposal to substitute a state sales tax for some portion of their local property taxes, while a well-known California assessor proposed a constitutional limit to the property tax rate. Both measures lost, but the agitation remains. Now, if everyone in Oregon had the same proportion of the property tax base as he had of the sales tax base, he would have gained on the turns what he lost on the stretches and paid just as much under the one as under the other. (He chooses between these taxes only on the basis of their "excess burden," i.e., on the satisfactions he loses by being forced to rearrange his pattern of economic activities after the taxes change relative prices.) But of course everyone does not have the same share of both tax bases. The proposed substitution, therefore, improves the welfare of those

who have a higher than average ratio of property to consumption, but worsens it for those who have a lower ratio. An economist can say nothing, repeat nothing, about the desirability of the net result inasmuch as the satisfactions gained and lost occur inside the heads of different people.

Only if the gainers compensate the losers and have something left ever for themselves does the change clearly improve welfare. If such a scheme of compensation proves impractical, even though possible, again nothing can be said about the desirability of the result.

The inability of economists to make definitive statements about welfare dampens their enthusiasm for any and all "reforms" that entail changes in the existing mixture of sales, income, and property taxes.

What about reforming the administration of the tax system? The local, often politically appointed, assessor is an attractive candidate for reformers of every hue and temper. His inadequacies and inconsistencies are notorious; eloquent fulminations against these wayward practices are the stock in trade of every writer on local finance. (I, too, long ago indulged in this sport to such effect that even now reprinted versions rise to haunt me.) Several questions, one obvious and one more basic, must be posed at this point. The obvious question is: Since changing assessment practices requires an expenditure of resources, can we be sure that the object is worth the cost and do we know that this is the best place to start spending money? The basic question is: What are the given conditions of the problem: how many degrees of freedom do we possess; how can "we" (as either outside observers or concerned citizens) count on the same political process that produced the assessor to change him to something better?

The Politics

Changing taxes is a political act. Whatever its economic merits, the change must be politically possible, and the people who propose it must have some notion of how to translate the possible into the actual; otherwise the whole enterprise is bootless. Or, more accurately, energies and time could better be expended on other things.

Translating the possible into the actual, in turn, demands a careful evaluation of the interests that gain and lose. Then, those that stand to gain must be informed of their opportunity, encouraged to pursue it, and rallied to the cause. Those that lose must be prevented from discovering the true state of affairs for as long as possible, discouraged from pursuing their interests, and turned aside. These are the means of the battle and they in turn have their means—alliances, promises, threats, and maneuvers innumerable.

If one wishes to reform taxation by substituting sales taxes for property taxes, as in the Oregon case, strong support can be expected from the property owners, mild opposition from the unpropertied consumers, and strong opposition from the merchants. In addition, the voters of Oregon appear to have had a visceral reaction against sales taxes—perhaps because they feared that small beginnings promised large endings—and such feelings are a political force of great moment.

Also of great moment, I must add, is the influence of ideas. Quite apart from interests, ideas are a vital political force because men take them as their

interests and pursue them more ferociously than any prospect of selfish gain.
Thus, in the present discussion, a "good idea" about tax reform could
become a standard to which many repaired. It could become politically
effective even though its proponents had neither the skill nor the intent to
make it so. It could, that is, if someone else took it up and carried it through.

Now I do not imagine that the Committee on Educational Finance of
the National Education Association is interested in "tax reform" as an
academic exercise. Instead, they hope it serves their larger interest in more
money for better schools. But how do they intend it to nurture this larger
end? By devising a good "tax scheme," an intellectually respectable pattern
for tax revision, which when announced automatically gathers everyone
under its standard. If so, they face a dry season. For their plan must be
implemented; it must be translated into practical workable politics, and
lobbied through the legislatures. Otherwise it dies.

What Difference Does It Make?

"To call a situation hopeless," says Frank Knight, "is the same as
calling it ideal." I have argued (a) that state-local tax systems result from a
complex set of economic, political, and historical forces; (b) that economists
can say very little about changes in taxation which represent an unambiguous
increase in welfare; (c) that anyone who wants to "reform" the tax system
faces a difficult political problem. Is this a counsel of despair? No indeed; it is
a message of hope.

In developing this hopeful doctrine, I begin with some economic
fundamentals. Afflicted with the universal limitation of scarce resources, a
society with virtually limitless desires must make hard choices among
alternatives. It must choose between guns and butter, between the present
(consumption) and the future (investment), and between private goods and
public goods. Since "the cost of any one useful thing is the number of other
useful things that must be given up in exchange for it," the cost of public
goods equals the private goods that must be given up in order to build and
operate schools, construct roads, or maintain armies.

Next, the output of public goods cannot be determined by prices and
markets but must be financed through collective contributions; the com-
munity must get together and agree on a method of paying for them. In a
modern economy with vast chunks of the national income handled by the
public fisc, methods of payment—though variegated in detail—are quite
simple in outline and entail some combination of income, consumption, and
wealth taxes. (In addition the government charges prices often under the nom
de plume of taxes, for operating highways, licensing taxicabs or marriages,
and, sometimes, delivering mail.) No modern central government tries to
support itself by tariffs and excises, as the United States did during much of
the ninteenth century, and no city council or state legislature relies on salt
taxes or fines on bachelors. Schools tax property and hope for a factory
within their district boundaries, cities or counties tax property and
transactions, while states tax income and consumption. The details are
unimportant.

(In addition every lower unit of government tries to get money and avoid control from every higher unit while every higher unit attempts to exercise control and grant money for the lower units in a way that optimizes its political security.)

In sum, the important fact about taxes is that someone must pay the money to get the goods, and the difference between "good" and "bad" tax systems is not so vital as is commonly supposed. Let me suggest a conjectural experiment: Take an allegedly imperfect tax system which currently raises $1 million for a particular state-local jurisdiction; call this system A. Then confront this principality with alternative and presumably better systems B and C, raising the same revenue—spent for the same objects—in different ways. Then ask all taxpayers how much they would be willing to pay to substitute B for A or C for A; ask them also how much they would bid to retain A. If they are honest and take time to answer your questions, these sums equal the amount by which B or C makes them better off than A; or for other people they show A's superiority over B and C. The net sum, the excess of bids for B and C over those for A equals a money measure of the rise in welfare occasioned by the tax reform.

How large would this measure be? Let the existing tax system A be the usual helter-skelter mixture of property taxes with arbitrary exemptions, transactions taxes with imperfect coverage, and sawtoothed income taxes with moderate rates, all administered with the inefficiency normal to that enterprise. Let the alternative systems be elegant variations on the basic wealth-sales-income theme, but with no more administrative improvements than can be reasonably predicted for the time and place. I still would be much surprised if the net sum were very large. I would expect a 3 to 5 percent improvement or a bid of $30 to $50 thousand in order to be taxed $1 million by the best of the reformed systems; I would not expect a 10 or 20 percent improvement.

Despite the words lavished upon it by both theoreticians and practical politicians, tax reform is not a topic of first importance. The difference between a good and a bad state-local system is not that large.

What, then, is important? *What is important is not how, but how much.* How many public goods do we want and need in general, and how much education do we wish in particular. Considering it as a consumption good we want the right amount of education to provide a foundation for political literacy in a complex society. As a production good, education means investment in human capital and should be pushed to the point where investment in people yields the same return as investment in things. These are the vital matters of our common concern. All else is digression.

Footnote

[1]Advisory Commission on Intergovernmental Relations. *State and Local Finances: Significant Features, 1967 to 1970.* Washington, D.C.: Government Printing Office, November 1969. p. 7-8.

Financing Education and Tax Reform

Houston I. Flournoy

THERE ARE A NUMBER of areas where changing economic conditions have significant impacts upon our schools. Obviously, all of these relate to government finance in general and to some of the problems in the general economy.

In the first instance, as long as there is an inflationary spiral like that of the past few years, (over 5 percent last year), those of us in public service constantly hear demands that we reduce the cost of government. When there is such a built-in escalator in costs, no matter what services are performed, there is a double task of reducing the total outlay, even if the same services are provided with the same number of people.

I think inflation has been particularly pertinent of late in the whole field of tax reform and that it has a direct effect on the way in which the state supports local public elementary and secondary schools. California school finance is a complicated field and few people, except perhaps those who designed the system, really understand it. One of the basic aspects of it is that the state guarantees a certain number of dollars in support of every child in every school district. This support is made up of a combination of locally raised revenue and state revenue, depending upon what each school district's assessed value is and how much the local tax rate will produce per child in a given school district. The result is a varying amount which the state provides for each school district.

What happens with this kind of program in an inflationary period is that the legislature may write into law a guarantee of $376, for example, for every elementary-school child. Then, there is a 5 percent increase in costs between this year and next year (as we had between last year and this year). If that kind of increase continues, the legislature must change the law every year, which they have not been wont to do. and which is difficult even under the best circumstances because a dollar change in the guarantee costs about $3.5 million.

If the law is not changed, all the impact falls on the local property tax to keep pace with costs which are rising without regard to extra school costs resulting from population growth. Additional costs, such as teachers' salary increases, which are affected by the same inflationary pressure as state

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employees' salaries, must be absorbed. If teachers receive a cost-of-living increase, for instance, it has to be paid from the property tax base until the legislature changes that support figure. It should be noted that the support figure is usually changed by the legislature as a pragmatic matter in terms of how much money is available for schools rather than how much has the cost of living increased. So there is a lag in this kind of a program and the lag falls, in terms of school support, totally on the property taxpayer.

There are, of course, within our school districts tremendous variations in capacity to absorb this kind of an increase. In one district it may mean only a penny or two on the tax rate; in another district it may mean 10 or 15 cents, depending upon assessed value per child.

The property tax, on which our schools rely, also is involved in inflation through its direct relationship to home owners. So long as there is a rapid growth in inflation, there are accelerating increases in the market value of property, particularly homes. Every time the assessor comes around (normally at least once in every five years, and more frequently in some areas of rapid development), the assessed value jumps. This has a relationship to market value; assessed value is supposed to be 25 percent of market value in California and all the counties. When assessed value goes up, the taxes on property go up without any change in tax rates. The people who are in one way or another on a fixed income, be it retirement or some other inflexible source of income, find that they have a declining amount of income left with which to merely maintain their presence in the residence that they purchased on some fiscal assumption that now has changed. Small wonder that they approve fewer and fewer school tax overrides and bond issues.

All of this indicates a great need for increasing the flexibility of our existing school finance system so that it will become more responsive to changing economic conditions. We must also correct the inequitable distribution of the burden of school support and at the same time consider the plight of the property taxpayer, particularly the home owners who have seen a tremendous growth in their taxes.

There is some hope ahead in the predictions of a declining birth rate and slower population growth for California during the 1970's which may lessen some of the financial demands on our schools. While this will be nothing more than a slowdown—a lower rate of growth than we have been experiencing—it can provide the breathing space needed to get a meaningful tax reform program into operation.

The governor's tax reform program now before the legislature contains proposals affecting school financing which are aimed directly at dealing with both the inflation problems and equitable distribution of the property tax burden now imposed for schools. The basic proposal is a state-wide school property tax at the rate of $2.05 which would replace the first $2.05 of the local property tax rate for schools. This money, collected by the state, would be redistributed among all the school districts according to average daily attendance, thus putting behind each pupil in the state an equal share of the total taxable wealth of the state up to the limit the $2.05 rate can raise.

Under this proposal, the local school district still could use as it wishes that part of its current local tax rate which exceeds $2.05. However, if a

school district wishes to exceed its current levels, it must seek approval of the voters. This program would produce additional funds for about 80 percent of the state's 1,144 school districts by diverting to them some of the resources of the 20 percent which have the greatest taxable wealth per child. While assuring a meaningful foundation support program, the proposal leaves responsibility for planning and execution of school operations at the local level and provides a method by which an individual district may enhance its program according to its financial ability and the wishes of its voters.

Built into this proposal is an expenditure control system providing for automatic annual adjustments of school district expenditures according to a factor based on average daily attendance and cost of living. This would permit individual districts to meet changing financial requirements brought on by inflation without having to resort to an election. It also would prevent inflationary costs being used purely as an excuse for increasing local property taxes after the state has taken $2.05 off the local rate.

This state-wide property tax proposal also enters the field of revenue sharing among governments by allowing smaller units, in this case the local school districts, to benefit from the broader revenue base and ability of a larger unit, such as the state, wherever such benefits appear justified. And this, in turn, brings me to a proposition which I believe basically underlies the entire structure of financing public activities such as schools.

I think the capability of the state and local governments to provide the services needed by the kind of population we have in California has been hampered by the federal government's virtual pre-emption of the income tax as its major source of revenue. There is a tremendous dependence of the federal government on the income tax because it is the most elastic, the most responsive tax, the one which will adjust faster and more adequately to changes in the economy. As a result, with inflation it brings in more revenue at the same rates and therefore can finance the additional costs that are imposed on government by changes in the cost of living.

The federal government is heavily dependent on the income tax while the states are much less dependent on it and some states still do not have one. California has a personal income tax, but it is not its biggest source of revenue. The sales tax still runs ahead by about three to two as the primary source of revenue for California's General Fund. Some Eastern cities have a payroll tax or some kind of variation of the income tax, but generally speaking, in California it is not used anywhere at the local level. Here local governments depend on an even less responsive kind of tax base bound to property values and the growth in assessed valuation.

I think this points up one of the major problems that will have to be faced in terms of relationships among the three levels of government if the state and local governments are going to sustain their roles without being in an almost constant cycle of inadequate revenues and tax increases. There will have to be some kind of state and local participation in the federal income tax proceeds to a greater degree than is true at the present. This could be a revenue-sharing program or a block grant program—many variations have been offered. President Nixon has presented one to the Congress, basically to provide a source of funds not directed, as so many federal grant-in-aid

programs are today, to specific purposes requiring specific standards, regulations, and accomplishments. This proposal provides for general participation in this revenue source.

Participation in such a sharing, plus the ability of the state to use the new revenues according to the priority of its needs, would introduce a flexibility and relief into government financing throughout both state and local governments which would greatly facilitate broad tax reform. In fact, I believe this sharing in federal revenues will be necessary if the state and local governments, with their relatively inelastic tax sources, are going to sustain the growing cost and size of their services and at the same time restructure their taxes into an equitable system geared to modern needs.

One other important area is particularly related to the kinds of problems education has with rising costs. Inflationary pressure makes it difficult, as I am sure many of you know in your own long-term capital programs, to project your costs accurately. Where we have had during the past few years substantially higher rates of inflation than were often projected, it means that frequently the funding programs for long-term projects have become inadequate. As a result, there are problems in long-term capital programs where inflation exceeds the anticipated expectations of a forecaster.

On the other hand, we also suffer from some of the efforts to control inflation. These efforts have contributed to the tremendous and unanticipated increase in the cost of borrowing money through sale of bonds on the municipal bond market to complete capital outlay programs for higher education and local school districts. In 1960, for instance, when many bonds were voted with a 5 percent limitation on the amount of interest that could be paid, no one really figured it was going to have any inhibiting effect upon the capability of the state or a school district to borrow money. Now, of course, no one would even look at a 5 percent municipal bond. The buyers' index at one point was as high as 6.9 percent, and we are in a position now where we cannot sell our previously approved bonds.

The federal government's appropriate action in trying to get some kind of handle on inflation has put us in a position where we cannot borrow money as we had assumed we could borrow money. We in state government hope that Proposition 7, which is on the ballot in June, will allow us to sell bonds up to 7 percent, with an escape hatch if the market again exceeds expectations. (The legislature by a two-thirds vote could make it possible to go beyond that.)

This is in one sense the state government's most immediate crisis in school finance, because we have a backlog of authorized bond programs that have been approved by the people. It affects our capital outlay program for higher education; it affects our capital outlay program to assist local school districts building school buildings for additional students. We do not have the capacity to lend the money from the state bond program as we did. Many school districts are unable to adequately house their students because of this backlog.

But in the broad perspective of today's discussion which is concerned with priorities in financing our schools during the 1970's and with tax

reform, it seems that the basic priority for California schools is the restructuring of their tax support system to assure them equalized support at a level adequate to today's educational needs. This will require acceptance of new concepts of responsibility and discipline in school finance at both the local and state levels, and can reach its greatest effectiveness only if there is substantial sharing of federal revenues.

State and Local Taxes

L. L. Ecker-Racz

I RISE WITH SOME reluctance to speak of fiscal reform because talk these past years appears to have produced so little. This is not to imply that progress has not been made. Hugh Calkins inventoried for us an impressive list of accomplishments since the President's Commission on National Goals identified the priorities 10 years ago (see page 9). The increase in financing provided state and local government during the 1960's figures prominently in that inventory: an increase in state-local spending for general government from $52 billion to $130 billion; for education alone, from $19 billion to $50 billion; an increase in the tax take of these governments from $36 billion to $90 billion. Moreover, all three levels of government—local, state, and federal—participated.

There would be cause for satisfaction in these statistics but for the fact that a lasting solution to the financing of state and local government remains as elusive as 10 years ago. It is still difficult to identify a single school board or city council that sees its way clear to a budget balanced at an adequate level just one or two years in the future. Even high-income suburbs are experiencing fiscal pains. Inter-community fiscal disparities increase year by year. School superintendents, city managers, and county administrators, who s' ould be concentrating on improving the effectiveness of their programs to still the complaints of taxpayers, are obliged to dissipate their energies on scrounging for dollars to meet their payrolls.

Moreover, the price paid for the increased level of financing during the 1960's has been high. The weight of regressive taxes in the country's revenue system has been increased by greatly increased reliance on state and local sales and property taxes, while federal income taxes were being reduced. Although two-thirds of capital improvements were financed out of current income, the state-local indebtedness increased from $70 billion to over $125 billion. Meanwhile these governments continue to confront persistent expenditure pressures with a much depleted reserve revenue.

Demands for more spending press from many directions. The improved bargaining position of public employees is increasing payroll and fringe benefit costs. Rising prices are escalating maintenance and capital costs. The people's improved standard of living is raising aspirations and expectations in

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public services. To accommodate economic growth, business requires increasingly costlier roads, airports, water, and other facilities. Record high interest rates mean higher debt service requirements and, therefore, a reduced borrowing capability.

Simultaneously, revenue pickings are becoming slimmer. In many areas property and sales tax levels are approaching political, if not economic, ceilings. Taxpayers exhibit increasing resistance to further diversion of their incomes from private consumption to public spending. Local governing boards and state legislatures are voicing anti-tax sentiments, encouraged by the fiscal stringency policies of the Administration. Tax collection estimates at all levels reflect the expectation of a downturn in the economy.

If recent trends persist for just another five years, local and state governments will be needing at least $50 billion of new financing by 1975. Economic growth, together with tax increases that appear reasonably available, is not likely to provide appreciably more than half of this amount. In short, the herculean tax efforts of the past decade produced no lasting remedy. Why has so much legislation, conversation, and conferencing failed to produce a fiscally more viable state-local system?

With benefit of hindsight, it is clear that it was a delusion to think that expenditure pressures of local governments were transitory; that it was merely a question of catching up with wartime neglect, with the population explosion, with urbanization, etc. Since state and local government expenditures tend to increase at a substantially faster rate than the economy, these governments need revenue sources with a high elasticity—taxes the yields of which grow substantially faster than production and income. Only the income tax satisfies this requirement. However, until the past few years income taxation played only a minor role in state-local financing efforts. The emphasis, instead, was on urging state legislatures to give local governments more taxing freedom, and urging the Congress to relinquish excise taxes. Cities and counties hoped to find lasting relief in such sources as taxes on utility services, theater admissions, payrolls, and motor vehicles. They rejoiced in one-time revenue windfalls from speeding up tax collections and in bits and pieces of federal grants.

Much was expected from exhortation—by lecturing the states to end discrimination against urban centers, lecturing high-income suburbs to share the high cost of services in the old cities, and lecturing property tax assessors to treat different types of properties evenhandedly. Efforts to shame governmental entities and their leaders into activities seemingly disadvantageous to their constituents avail little or nothing at all. Those who aspire to hold elective office in a popular democracy are slaves to the pocketbook interests of their voters; they are not free to do the unpopular, however necessary, except at jeopardy to their political survival.

This is not intended to sound defeatist. Rather, my purpose is to stress the case for turning our attention away from the short-lived palliatives and toward more lasting, albeit more difficult, remedies. No one need doubt the capability of this economy to support a level of governmental services consistent with Americans' aspirations for their families and businesses. The capability is here; only the delivery system is faulty.

Local government, fractionized into economically illogical jurisdictions with imbalances between needs and resources, and inhibited by fear of alienating taxpayers, is simply incapable of carrying the major financial burden of costly school and social programs. The more developed and interdependent the country's economy, the more it is dependent on quality educational and social programs. However, the more developed its economy, the more restricted is local government's, and to a lesser degree state government's taxing freedom. Needs and resources at the local level move in perverse directions with the passage of time.

Neither need anyone doubt the compatibility of increased federal and state financing of educational and social programs with local administrative responsibility and prudent handling of public funds. The Administration's program in the welfare area is a step, albeit a halting step, in the inescapable direction. The case for a larger federal role in the financing of education is equally strong. Elsewhere I have proposed that the federal and state governments ought logically to accept responsibility for financing a public school foundation program. I define such a program as one that makes available to each group of 20 children the services of a qualified, well compensated classroom teacher.

The state's share in the cost of a school foundation program might well be limited to an amount equal to 1 percent of the income of its residents. At 1969 levels, this would have called for a $7-1/2 billion state contribution toward the foundation program. That year, the states' investment in local schools out of their own resources (excluding redistributed federal funds) approached $10 billion. The states would have been left with only a limited capability to share in the remaining cost of public schools without an increased tax effort. They will need to exert such an effort. Local governments, however, would have been left with adequate capability to supplement the foundation program. Moreover, and its importance cannot be overstated, the school program would have been liberated from its primary dependence on the property tax, thus partially freeing that tax to carry the burden of property-related municipal services.

Shifts in financing responsibility in the directions suggested, it should be made clear, would not resolve the fiscal problems of local governments and certainly not those of state governments. The inhibiting political shackles on their tax practices and on structural reforms would remain. The ability of these governments to tap their own resources also has to be improved because their contribution to the public sector will have to remain major and expanding. Left to their own devices, local and state governments will continue to be handicapped in making that contribution. Here, too, intergovernmental assistance would be helpful; nay, indispensable. States, for example, could and should help local governments to make more effective and fairer use of property taxation. They could and should help to remove hurdles in the path of long needed reforms in governmental structure and organization. The states, in turn, could be assisted (for example, by federal tax credits) toward more effective personal income taxation.

With each passing year, the future of this federal system, the preservation of its more critical values, becomes more and more dependent on

the willingness of state governments to guide and encourage local governments toward constructive practices and reforms and the willingness of the federal government to accept a comparable responsibility toward state governments. With each passing year the need to conform our political philosophy to make room for more intergovernmental involvement becomes more urgent. This is my assessment of the task for the 1970's, my reading of the lessons taught by the 1960's.

Contemporary Problems in School Finance

84 / 85

Law and Equal Rights for Educational Opportunity

Sharon White

THE SUBJECT OF THIS discussion is legal action as it relates to equal rights for educational opportunity. Because the topic is a large one, I shall speak about the broadest and most recent legal actions to raise the issue: the challenges to the manner in which the states finance their systems of public education. Pupils, parents, school boards, and taxpayers in California, Illinois, Michigan, New Jersey, Virginia, and Wisconsin have brought action against those states, stating that their methods of financing public education violate the equal protection clauses of the federal and state constitutions by discriminating against them by state law, when they are in the same class as others of the states' parents, pupils, and school boards who are in a better position. Legal action is being directed against the states because the states have assumed in their constitutions the obligation of providing free public education and because the states are responsible for creating the laws which establish the manner in which state public education is financed.

The ultimate cause of the Constitutional infringements in issue is the linking of educational expenditures in the individual school districts to the amount of money the districts can raise through local property taxes, without any apportionment to equalize the districts' tax resources, an element resulting in vast inter-district differences in per-pupil expenditures and education facilities. Parents and pupils in these education finance cases object to inter-district differentials in assessed valuation of properties, and point to the irrelevance of the district tax system in terms of educational need. They object to ceilings on education tax rates. They point to the failures of the state components of education funding: that they are inadequate to alter to any degree the inter-district differences in per-pupil expenditure and that many provisions only aggravate the differentials which exist. Taxpayers object to high tax rates which result in low district tax yield, when the same or lower tax rates result in greater yield in other districts. Plaintiffs object in general to systems of financing which are not meeting the educational needs of great numbers of the states' public-school pupils.

Typical of the case allegations are those of the *Board of Education of Detroit v. Michigan,* in which the Detroit School Board, Detroit pupils, and their parents allege that the state's mechanism of education finance creates

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inter-district disparities in school funding and offering, disparities which prevent Detroit schools from offering educational resources and opportunities substantially equal to those of other school districts. They state that Michigan's allocation of school funds lacks any relation to variations in expenditure needs, which flow from variations in such factors as pupil populations, educational facilities, and level of educational costs of such items as school construction and teacher salaries. The case represents the cities' complaints with regard to the heavy burdens on their tax dollar and to the fact that their lower than average per-pupil expenditure is not sufficient to offer the educational opportunities provided in the state's suburban districts. It represents the cities' frustration when faced with the different, and often more expensive, educational needs of large numbers of disadvantaged pupils and the lack of means for procuring the necessary resources.

Other education finance cases, such as the one which arose in Bath County, Virginia, represent the complaints of the rural school district. Plaintiffs in that case stated that the educational resources of their district were not sufficient to provide the vocational education available in other districts, educational facilities which meet tests of adequacy, or a curriculum with a sufficient range of courses to entitle graduates of the county's school to enter many state institutions of higher learning.

Certain cases speak of other discrimination. A case in Texas draws a correlation between districts of high and low per-pupil expenditures and districts of high and low concentrations of minority pupils. The case in Bath County, Virginia, drew the correlation between districts of high and low expenditure and districts with high and low concentrations of persons with low income.

Most of the education finance cases do not ask for a specific remedy. They do not request that particular aspects of the financing scheme be restructured, for example, that the district tax system be abolished, or that the state aid portions of school funding be refashioned so as not to discriminate against poorer districts. Most of these cases ask only that the state laws which establish the manner of state financing of education be declared unconstitutional and that the legislature be given a reasonable time to enact laws which would meet constitutional requisites.

To date, only two of the education finance cases have been finally decided by the courts, both by federal district courts, in decisions which the Supreme Court affirmed. The first was a case which arose in Chicago, Illinois, in which pupils attending school districts in Cook County charged that the state acted unconstitutionally in creating a finance system which resulted in their school districts being funded far below other districts in Illinois. They alleged that the result was disparities in educational programs, facilities, and services, and in the levels of educational attainment. They asked that Illinois laws authorizing distribution of public school funds "not based upon the educational needs of children" and resulting in unequal per-pupil expenditures be declared unconstitutional.

The Illinois complaint was dismissed by a three-judge court. Its opinion recognized that there were "wide variations in the amount of money available for Illinois school districts, on both a per pupil basis and in absolute terms,"

and that "presumably students receiving a $1,000 education are better educated than those acquiring a $600 schooling." Yet, the court held that the Illinois education finance statutes were constitutional. It found constitutional justification for the per-pupil disparities in the state's maintenance of a system of local school districts, which, it said, enabled local communities to determine the value they placed on education, particularly as the state made provision for a $400 minimum expenditure guarantee for every pupil. The court went on to state that in any event, equal educational opportunity was not "a constitutional requisite," and the controversy was not one which the court could decide. Interpreting the plaintiffs' complaint as seeking a declaration that the federal Constitution compels states to allocate public-school aid on the sole basis of pupils' educational needs, it stated that while the only measurable standard of educational need was a standard of equal school expenditures per pupil, expenses were not the exclusive yardstick of educational needs.

The decision was appealed to the Supreme Court; and at that point the National Education Association, the Urban Coalition, the Research Council of the Great Cities Program for School Improvement, and the Lawyers Committee for Civil Rights Under Law took issue with the decision of the federal court. In a brief which those organizations filed in the Supreme Court, they first summarized the facts:

Plaintiffs' school districts, and the other school districts in Illinois, raise money and otherwise receive financial support in accordance with a multitude of State laws. The principal provision for public school funds is the State law authorizing each school district to impose a tax upon property within the district at any rate up to a specified ceiling. The school districts in which Plaintiffs reside have set such property tax rates near the upper limit permitted by Illinois law. Accordingly, Chicago, a district in which two Plaintiffs reside, taxes at a 1.9% rate, only 0.1% below the rate ceiling set for Chicago by State law. Yet, despite these tax rates, Plaintiffs' districts can collect much less revenue per pupil than other districts because valuation of taxable property per pupil within them is so much lower. Thus, while Chicago, taxing at the ceiling rate of 2.0%, could obtain $460 per pupil, Monticello, which in fact only taxes at a rate of 0.5%, could obtain $2,280 per pupil at a 2.0% rate. Thus, the necessary result of the wide variation in the value of taxable property as the primary source of revenue, is wide variation in per pupil expenditure from district to district. As the court below indicated, the difference between high and low pupil expenditure per annum in elementary school districts is in the ratio of 3.0 to 1; in high school districts, 2.6 to 1; unit districts (grades 1-12) 1.7 to 1.

Further, while the State supplements the school funds raised locally by property taxes collected pursuant to State law, those payments, from a State Common School Fund derived from State revenues other than the district property tax, fail to equalize the disparities resulting from the basic property tax element in the school funding machinery. Thus, the "flat" grant, which provides each district with an equal supplement for each of its students in average daily attendance, has no effect on the per pupil expenditure disparity between districts with high property values and those with lower ones. Indeed, as detailed below, the grant serves to aggravate that disparity.

The "equalizer grants," also provided for by statute from the Common School Fund, do not correct the discrimination between pupils in wealthy districts and those in poor ones. While such grants provide that the State will make available to districts the difference between a $400 per pupil revenue and the amount raised by taxing at a statutorily defined minimum tax rate plus the flat grant, the poorer districts cannot compensate for the inequalities in funding produced by inter-district variations in property values. Additionally, because the equalizer grant is awarded after the flat grant

is added to local revenues raised at the qualifying rate, the wealthy districts benefit in full from the flat grant, whereas the poor districts receive a reduced benefit or none at all.

Hence, despite State assistance, the amounts spent on education per student in Plaintiffs' school district are still "far below" expenditure in other Illinois districts.

As Plaintiffs directly allege, students in Plaintiffs' districts suffer severe disadvantages relative to students in more affluent districts because the value of the property within each of those districts, in proportion to the number of students in each, is below the comparable valuation in other districts in the State. Thus, the suggestion of the court below that the inter-district expenditure differentials are or may be due to the low value Plaintiffs' districts attach to education, compared to either the values these districts place on other district needs or the value other districts place on education, is completely unwarranted; Plaintiffs' districts have been spending almost all the law permits them to spend on their students' education, and have assumed a tax burden, in terms of tax rate, as heavy as or heavier than the like burden assumed by most other districts in the State.

As a result of the inequalities in financial support outlined above, the "educational programs, facilities, and services" available in Plaintiffs' districts are decidedly poorer than those provided in other districts in the State, and as a direct result, the education received by Plaintiffs is decidedly inferior and unequal.[1]

The brief went on to state that while variations in the value of taxable property per student in Illinois, from $114,000 to $3,000, would be serious enough if confined to that state alone, it appeared that such variations were not so confined.

The crux of the organizations' legal argument was the following: that the district court had applied the wrong constitutional test to determine the constitutionality of the state's action and that even under the test which it had applied, the court had erred in finding that Illinois education financing statutes were unconstitutional: "Whatever," they said, "may be the rational reason for having a statewide school system set up and financed through local subdivisions of the State, no Constitutional justification exists for the financing of public education in such a manner that the amount of public funds available for a child's education depends upon the property values of the neighborhood in which he lives."

Other organizations, including the American Federation of Teachers, the AFL-CIO, and the Western Center on Law and Poverty also filed briefs. However, the Supreme Court decided not to hear the case, with only one Justice dissenting, and affirmed the decision of the federal court.

Those decisions were determinative of the dismissal of a California education finance case from the lower state court in which it had been filed, and its appeal to the intermediate state court. Those decisions were also determinative of the dismissal of the Bath County, Virginia, case from the federal court in which it had been filed. In that case, pupils and taxpayers of Bath County, where 46 percent of the residents earn less than $3,000 a year, requested an end to educational discrimination related to their poverty. They alleged that the education finance system prevented them from raising the revenues necessary to provide minimal educational opportunity, even while their local tax rates were set at the legal ceiling. In addition, they alleged discrimination in the gearing of state educational aid supplements to the level of local tax revenues, a factor actually increasing total education resource disparities between school districts. Plaintiffs further alleged unconstitutional

state action in Virginia's failure to make provision for the added costs necessary to provide rural areas equal educational opportunities in terms of buildings, equipment, teachers, books, and curriculum.

Initially, it had appeared that the Bath County pupils would obtain judicial relief. In a decision ruling on a prior motion to dismiss, the deciding federal district judge had stated:

The right to an equal educational opportunity was clearly recognized in *Brown v. Board of Education.* . . .While racial discrimination is not an issue in this proceeding, at least one recent interpretation of this right to an equal educational opportunity suggests that the right protects individuals not only from discrimination on the basis of race, but also on the basis of poverty. [2]

The judge cited the *Hobson v. Hansen* case[3] arising in the District of Columbia and went on to say:

Poverty does appear to be a factor contributing to the conditions which give rise to the plaintiffs' complaint. It is clear beyond question that discrimination based on poverty is no more permissible than racial discrimination, and that the discrimination on the part of state officials need not be intentional to be condemned under the equal protection clause . . . . The rationale of those decisions appears to be that state policies imposing conditions on the exercise of basic rights, which conditions operate harshly upon the poor, must be clearly justified in order to be constitutionally permissible.[4]

However, a subsequently convened court dismissed the Bath County complaint. The court found:

The existence of such deficiencies and differences is forcefully put by plaintiffs' counsel. They are not and cannot be gainsaid. But we do not believe they are creatures of discrimination by the State. Our reexamination of the Act confirms that the cities and counties receive State funds under a uniform and consistent plan. . . .The plaintiffs seek to obtain allocations of State funds among the cities and counties so that the pupils in each of them will enjoy the same educational opportunities. This is certainly a worthy aim, commendable beyond measure. However, the courts have neither the knowledge, nor the means, nor the power to tailor the public moneys to fit the varying needs of those students throughout the State.[5]

In November 1969, plaintiffs in the Bath County case appealed the decision to the Supreme Court of the United States. On February 24, the Supreme Court affirmed the federal court decision.[6]

Another education finance case is pending in the U. S. District Court for the Western District of Texas. Plaintiffs here, as in the other cases, claim that the state financing system discriminates against them in terms of fewer education resources and lower quality of education. They also allege that the finance system fosters racial discrimination.

A case in the state courts of Wisconsin similarly alleges substantial disparities in the quality and extent of public education as a result of the state's finance system. Plaintiffs allege that the state public school aid serves only to perpetuate school fund inequalities arising from differences in the tax capabilities of school districts; they assert that it fails to take into account the varying conditions of school facilities, and the varying needs and costs of education in different school districts. Plaintiffs ask that reapportionment of school districts be ordered.

88

Although none of the education finance cases has been favorably decided by a court, it is too early to know what the final outcome will be. Because each of the cases is a little different, one of the courts could well decide that the case before it is sufficiently distinguishable from cases previously decided that prior decisions need not control the case's outcome.

That is not to say that the plaintiffs have an easy road ahead. They must overcome a number of arguments made by defendants, arguments which find support in prior court decisions.

While plaintiffs can show vast education inequalities, defendants argue that those inequalities may not give rise to a judicially redressable case under the equal protection clause. They argue that inequality in public schooling does not result from invidious discrimination and accordingly does not transgress the Fourteenth Amendment. Defendants assert that the subject of plaintiffs' complaint is not one to which courts will apply the equal protection standard, that the area of public welfare expenditures is constitutionally left within the discretion of the state, and that in any event the state bears no consitutional burden to preclude public service differentials flowing from local taxable wealth differences. Even stronger objections are voiced when defendants assert that courts do not have the power or the skills needed to equalize public education.

On the other hand, the plaintiffs can use various court decisions to support their arguments that such contentions are not correct or that such contentions do not state the law.

However, even if the courts finally decide that the state laws for financing systems of public education are unconstitutional, those decisions will only be a beginning. Equally important will be the test they use to determine what kind of educational financing system meets constitutional requisites. It is far easier to state what does not constitute equal protection of the law in public education than what does, for example, to find that it is unconstitutional to finance public education in such a manner that the amount of public funds available for a child's education depends upon the property values of the neighborhood in which he lives, rather than to define learning opportunities which must be offered to all pupils in the state.

Even more important will be the legislatures' determination of how court requirements will be implemented. These will not be easy determinations, as even apart from legal and political limitations, it is difficult to determine what should constitute equitable education financing. Thus, while one possible solution would be to provide each of the state's children with equal school expenditure, and while such a formulation has the benefit of being definitive, a dollar equivalence standard would actually validate inequality in education because the cost of providing equivalent schooling varies greatly among schools and districts owing to varying teacher pay, school plant maintenance, pupil transportation, and like factors. Moreover, it may be said with some cogency that the school child is being given education, not dollars, and it is the education which should be equal.

Another possible standard, that of providing equal education resources for every child, would avoid the inequality of dollar equivalence. However, such a standard does not appear sufficiently elastic to permit weighting for

the greater expenditure burdens involved in providing the compensatory services necessary to teach children with physical, mental, or cultural learning disabilities.

While a goal of providing equal learning opportunity would provide sufficient flexibility to encompass measurable overburdens in educating certain school populations and while such a standard finds support in some established school practices, it will not be an easy matter to identify and recognize what such obligations mean in operational circumstances.

The remedies available for making changes in the educational finance system also offer difficult choices. First, school district boundaries might be redrawn to equalize their taxable wealth quotients. Such a course would provide districts with equal power to offer education and yet retain a local option to decide the desired school tax rate. Yet, it might be difficult in a practical sense to set school district boundaries in such a way as to allow each district a substantially equal tax base. Moreover, district reapportionment would not appear to provide the desired equal educational opportunities in school districts with substantial education overburdens.

Similar difficulties are encountered in the suggested schemes for pooling or shifting funds raised by the several school districts, for example, by the power equalizing scheme proposed by a professor at Berkeley and others. Under that proposal the state would establish permissible educational expenditures for various levels of local taxation, while those revenues representing funds in excess of the permitted expenditures would be used, in combination with state aid, to raise the funds of poorer districts to the level of the pupil expenditures established by their rate of taxation. Power equalizing thus seeks to leave the rate of taxation in local hands, but to shift to other districts so much of a wealthy districts' tax revenue as is attributable to its above-average aggregate property values. Like school district realignment, power equalizing creates dollar equivalency rather than equality of education or learning opportunity. A probable result would be continued gross school inequalities in districts having education overburdens and citizens disinclined to vote heavy school tax rates.

Alternatively, public education might be financed through a state property tax. By eliminating dependence on local property taxes, that course would alleviate the problem of lack of resources in poor districts. The mechanism might also be formulated in such a way as to retain a local option to surtax for additional education. A related possibility is the provision of all public education funding through state sales or income taxes. Such a proposal is espoused in model legislation drafted by the Advisory Commission on Intergovernmental Relations.

The message is loud and clear: The creation of quality and equitable education finance systems may begin with a court decision, but in the end will depend on enlightened legislatures and an insistent and informed citizenry.

Footnotes

[1]*McInnis v. Ogilvie,* brief filed in the Supreme Court of the United States for The Urban
Coalition, National Education Association of the United States, The Research Council
of the Great Cities Program for School Improvement, The Lawyers' Committee for
Civil Rights Under Law as amici curiae.
[2]*Burruss v. Wilkerson,* 301 F.Supp. 1237 (1968).
[3]269 F.Supp. 401 (1967).
[4]*Burruss v. Wilkerson,* 301 F.Supp. 1237 (1968).
[5]*Burruss v. Wilkerson,* 310 F. Supp. 572 (1969); affirmed, 90 S.Ct. 812.
[6]*Ibid.*

Educational Inequality, School Finance
and a Plan for the 1970's

and a Plan for the 1970's

James W. Guthrie, George B. Kleindorfer,
Henry M. Levin, and *Robert T. Stout*

WITHIN AMERICAN IDEOLOGY, the prevailing view of schools is that they function as large blenders which collect children from a wide assortment of social backgrounds and provide them individually with the wherewithall to enter the race for life on an equal footing. It is even held that the child from the most humble of circumstances can take advantage of the opportunities provided by public schooling to work his way to the top ranks of success. As is the case with most myths, this one may have been grounded in reality initially and may even have some elements of validity today. However, it is our contention that this view is increasingly more a fantasy than a fact.

At one end of the continuum, children from wealthy homes and privileged localities have good schools awaiting them. Their less fortunate peers from the poor end of the social spectrum have low quality schools waiting for them. Consequently, at the end of the schooling process, initial social class differences are likely to have been magnified in a manner thereafter almost impossible to reduce. Moreover, contrary to conventional wisdom, evidence strongly suggests that present arrangements for financing public schools serve not to ameliorate, but rather encourage such inequities. Our purpose in this paper is to present that evidence and to suggest means by which present plans for distributing resources to schools can be rearranged in the 1970's so as to redress social inequities and restore meaning to the ideology of equal opportunity.

The Study

The idea that public schools serve more to reinforce than to reduce social class distinctions is not a new one. Waller[1] made such an assertion in the 1930's, and more contemporary writers, such as Conant,[2] Gardner,[3] and Benson,[4] have commented upon it subsequently. However, in 1969 a series of

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circumstances made it possible to examine this question empirically and to assess the part played in the matter by state school finance arrangements. Michigan was selected as the site for the study because of comparability to much of the industrialized portions of the country and because of the rich supply of information regarding schools to be found there. Patterns of historical development and present day administrative arrangements tend to be unique among states and thus it is frequently impossible to generalize about a phenomenon from one to all 50 states. Nevertheless, the social and economic composition of Michigan's population and the legal and organizational arrangements surrounding its schools are sufficiently typical that we feel confident in saying that what we found there will also be true to a substantial degree in a majority of the remaining states.

The Conceptual Framework

To guide our research efforts, we initially postulated four conceptual components which can be diagrammed as follows:
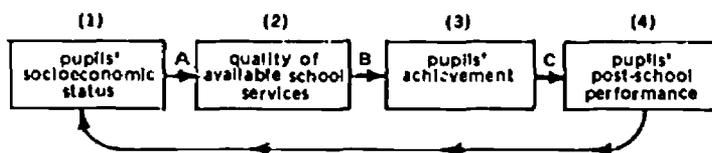
We hypothesized that each component in this chain currently influences its successor. However, we do wish to insert a word of caution here. Quality of available school services is known to be affected by factors in addition to the socioeconomic status of the pupils being served, academic achievement of students is influenced by conditions other than those which take place in school and pupils' post-school opportunity obviously depends upon more factors than simply their academic achievement. *Thus, no claim is being made that each component in the diagram above is determined solely by its predecessor;* such would be entirely too simple an explanation.

Nevertheless, after acknowledging the existence of additional influences, we hold that each conceptual component in the diagram is a primary determinant of its successor. This chain of causal linkage is represented by the three lettered arrows in the diagram.[5] Each of these linkages has been framed as a separate proposition to guide our research. The propositions are as follows:

A. *Socioeconomic Status and School Services.*[6] The quality of school services provided to a pupil is related to his socioeconomic status, and that relationship is such that lower quality school services are associated with a pupil's being from a lower socioeconomic stratum.

B. *School Services and Pupil Achievement.* A relationship exists between the quality of school services provided to a pupil and his academic achievement, and that relationship is such that higher quality school services are associated with higher levels of achievement.

C. *Pupil Achievement and Post-School Opportunity.* The post-school opportunities of a pupil are related to his achievement in school, and that relationship is such that higher achievement is associated with "success" and lower achievement is associated with lack of "success."

95

Data, Definitions, and Design

Having settled upon the relations to be examined, we next turned our attention to selecting a sample of school districts, obtaining a wide range of education-related information about those districts, and deciding upon analytical procedures for testing our research propositions.

Sample—In 1969, Michigan had 533 school districts containing grades K-12. Using a table of random numbers, 52 of these were selected for purposes of study. In addition, the school district of the city of Detroit was added arbitrarily because it contained approximately 15 percent of the state's pupils and to have excluded it would have biased the sample greatly in favor of rural and suburban districts. Consequently, the final sample was composed of 53 local school districts, 10 percent of the total in the state.

In addition to school districts, some analyses were to be made of individual schools and individual pupils. These samples were taken ready made from the efforts of the Equal Educational Opportunity Survey (EEOS) conducted in 1965. In Michigan, the EEOS sampled 89 elementary schools. In addition, it gathered data on 5,284 sixth-grade pupils. These served as the school and student sample for this study.

Data—The major source of information was an official state-wide educational survey conducted for the Michigan legislature and published in 1968.[7] The survey was directed by Professor J. Alan Thomas of the University of Chicago, and it was described by the State Superintendent of Instruction as "the most comprehensive study of elementary and secondary education" in the state's history. In Michigan the survey is popularly known as the Thomas Report. We too shall refer to it by this shorthand label.

In addition to data collected for the Thomas Report and the EEOS, information was also obtained from the Michigan State Department of Education, local school districts themselves, and a variety of secondary sources.

Definitions—Testing the research propositions necessitated converting each of the four conceptual components into operationally defined variables. *Socioeconomic status* (SES) came to be defined primarily in terms of demographic data from the 1960 census and the EEOS. An aggregate SES score was computed for each school district in the sample by multiplying median family income by median years of schooling in the adult population. When individual pupils served as the unit of analysis, their SES was computed by multiplying, for the head of their household, years of schooling by average annual income for occupational categories. *School service quality* was defined operationally by responses to approximately 50 Thomas Report and EEOS questions regarding adequacy of physical facilities, instructional services and materials, personnel, and administrative arrangements. *Pupils' achievement* came to be defined as student performance on tests of cognitive ability, and *pupils' post-school performance* was measured from secondary sources on dimensions such as increments in individuals' lifetime earnings, occupational choice, social mobility, political participation, and social deviancy.

Design—School districts, individual schools, and individual pupils served separately as units of analysis. When a large sample (more than 60 subjects) was analyzed, the design consisted of rank ordering subjects in terms of their

numerical values on independent variables (SES, for example), dividing the continuum into octiles, locating the numerical value of the dependent variable (school service quality, for example) for the median subject in each octile, and then computing a correlation coefficient for the ranks of the medians and the octile sequence. RHO was the statistic employed for this purpose. In those instances where sample size was less than 60, division into octiles was eliminated and Student T was the statistic used to assess the degree of rank order relationship between two sets of variables. In each instance, no result was reported unless it was significant at the .05 level or better.

Findings

Research propositions 2 and 3 are designed primarily to demonstrate that (a) the quality of schooling a pupil receives influences his academic achievement, and (b) the quality of that achievement influences his post-school performance. Because of present limitations of space, the proof for these two lines of reasoning must either be assumed or the reader can refer to the complete study.[8] At this point we will limit our focus primarily to proposition one, the relationship of socioeconomic status to school service quality. In the next section we will demonstrate the connection between school finance and this relationship, and in the final section we put forth our recommendations for future restructuring of school finance patterns.

Socioeconomic Status and School Service Quality

This proposition was examined at three levels: for school districts, for individual schools, and for individual pupils. Within each level an assessment was made for approximately 50 school service dimensions. In the overwhelming preponderance of cases, the lower the measure of socioeconomic status, the lower the measure of school service quality. To illustrate this fact we have selected a small proportion of the over-all findings. The relationships we have chosen to display pertain to the most important school service dimensions; however, the degree of disparity evidenced in these tables is not necessarily any more extreme than that which exists in the tables we have excluded from the summary.

Personnel—The principal instructional component of schooling consists of teachers, and when we examined the ability of teachers in relation to the social standing of their pupils, we found that high SES pupils were much more likely to have the benefit of capable teachers. For example, when the teacher's verbal ability level is used as a proxy for teacher quality, we find that it is distributed in relation to SES in the following fashion:

Octiles according to socioeconomic levels	1	2	3	4	5	6	7	8
Medians from verbal ability score of teachers	23.5	23.5	24.4	24.7	24.4	24.5	25.0	25.6

Rho = .90

97

Because of the nature of the verbal ability test for teachers, the range between the lowest and highest score represents a significant difference in ability. The standard deviation is about 1.5 raw score points. Thus, approximately 68 percent of all teachers will score between 23 and 26. The low octile's median of 23.5 signifies a dramatically reduced verbal ability compared with the high octile score of 25.6.

Facilities—As is the case with teacher characteristics, so it is with physical facilities:

Octiles according to socioeconomic level	1	2	3	4	5	6	7	8
Median from building age	7	7	5	6	7	6	4	4

Rho = .73

According to the procedures by which these data were coded, a score of "7" in the table represents a school age of 40 years or more. At the other extreme, a score of "4" signifies a school age of 10 to 19 years. Thus, the difference in actual years of building age is at least 20 years and possibly greater. Low SES schools also tend to be on smaller building sites, and because they have larger numbers of pupils, they are more crowded.

Instructional Services—From this category we can see that not only do low SES children receive instruction from less able teachers housed in less adequate facilities, but also they are less likely to have necessary instructional services available to them. For example, children from relatively poor families are most likely to be in need of remedial instruction. However, when the availability of such services was examined in relation to the SES of the school district, a perverse set of circumstances was uncovered. As can be seen below, the more wealthy the school district, the greater the likelihood that a wide range of remedial services will be offered. Among low SES districts, only about one-half offer such services, whereas among high SES districts almost all do.

Octiles according to socioeconomic level	1	2	3	4	5	6	7	8
Medians from percent of districts providing services to children unable to benefit from regular program	45	56	91	67	80	60	100	92

Student T = 2.48

In addition to not offering needed services, the low SES districts tend to be slow to adopt new instructional techniques. An examination of adoption of one or more of the new science curricula (Chemical Bond Approach Project, PSSC Physics, Biological Science Curriculum Study, etc.) revealed that the highest SES districts typically had adopted three such innovations whereas the poorest districts had none:

96

Octiles according to socioeconomic level	1	2	3	4	5	6	7	8
Medians from adoption of innovation in science instruction	0	1	2	1	3	2	3	3

Student T = 2.97

Data available to us in this study permitted comparisons on other dimensions, health services, textbooks, school lunches, class size, teachers' salaries, and so on. In these instances, as in those few cases which we have selected to discuss above, the story is the same; the lower the social standing of the child the less likely his chances of receiving high quality service. A reasonable person might rightly be perplexed as to how such a situation can exist. How can disparities persist in the face of ever-increasing local property taxes, state financial distribution arrangements which purport to equalize opportunity, and federal government programs which owe their existance to the demand for an end to poverty? We attempt now to answer these questions.

School Dollars and Educational Inequality

In the year chosen for study, 1967-68, per-pupil expenditures in Michigan ranged from a high of $1,038 to a low of $412. We attempted to see if this expenditures distribution was related to measures of school district aggregate SES. The principal finding was that *the higher the district SES, the higher the per-pupil expenditures, local, state, and federal revenues combined* (see table). This finding in itself is not too suprising. It is consistent with any number of previous school finance surveys.[9] It is not until the second analytical stage that the less well publicized mechanisms of such discrimina- tion become more evident.

Quartiles according to socioeconomic level	1	2	3	4
Medians from expenditure per pupil, total instruction	335	355	369	420

Student T = 2.93829

In the next stage of the analysis, we inquired as to the cause for the maldistribution of school support revenues. This inquiry fell into two segments, (a) an assessment of the mechanisms for generating revenue from the local property tax, and (b) an examination of the procedures by which state revenues are distributed to local districts.

Locally Generated Revenues—In the majority of states, approximately 50 percent of school support funds are locally raised by levying taxes against property. Michigan is no exception to this pattern. What is the distribution pattern for such locally raised revenues? Are they generated in a fashion which contributes to low expenditures in low SES districts and high expenditures in high SES districts? To obtain an answer to these questions, the relationship between measures of local school district aggregate SES and indicators of local level resource contribution was made. The results are

recorded below. Here we can see clearly that *the lower the social standing of a district's residents, the lower the amount of school revenue raised locally.* The converse is equally evident.

Quartiles according to socioeconomic level	1	2	3	4
Medians from per-pupil allocation from local sources	210	203	213	368

Student T = 3.42343

The amount of money that a local school district can raise is a consequence of two factors: (a) the amount of taxable property (assessed valuation) behind each pupil (AV/PP), and (b) the tax rate levied against that property. Are the low expenditures of low SES school districts a consequence of having little property to tax (low "ability") or, is the situation caused by their unwillingness to tax themselves at a rate sufficient to generate equal revenues (low "effort")? To identify the "culprit," school district SES was first compared to levels of assessed valuation per pupil. The outcome of this comparison is displayed below. It is evident that the residents of low SES districts simply do not have an equal tax base to tap for school support.

Quartiles according to socioeconomic level	1	2	3	4
Medians from assessed valuation per-pupil in hundreds	95	116	110	148

Student T = 2.25114

Another side to the revenue generating coin is the tax rate. When we examined effort in relation to district SES, we found that high SES districts do tend to tax themselves more heavily for schools. However, their higher millage rates can best be explained by (a) legal limitations in Michigan which inhibit millage increases in low SES districts,[10] (b) matters of municipal overburden which tend to fall heaviest upon low SES areas,[11] and (c) the regressive nature of the property tax generally. Even if low SES districts overcame all these obstacles and taxed themselves at a rate equal to high SES districts, they still would have difficulty generating sufficient local revenues to compensate for their lower amounts of assessed valuation.

State Distributed Funds—In Michigan, general purpose aid (as opposed to categorical programs) constitutes 90 percent of all funds distributed by the state for the public schools; so this is where we will spend the major portion of our explanatory time. In order to participate in the state aid plan a school district must tax itself at a specified millage rate (in accord with its equalized assessed valuation per pupil). Thereafter it receives state funds in inverse proportion to its fiscal capacity (AV/PP). *The difficulty with this arrangement is that it does not equalize.* It is true that wealthy school districts tend to receive less state funds per pupil than do poor school districts. However, every school district gets some money from the state. For example, one of the wealthiest districts in the state ($44,450 AV/PP) received $130.34 per

pupil in state aid. Consequently, even though the state funds are labeled "equalizing," they do not suffice to produce equality of resources behind every child in Michigan. This imperfection is displayed below.

Quartiles according to assessed valuation per pupil	1	2	3	4
Medians from per-pupil allocation from local sources	168	212	281	323

Student T = 4.33579

Quartiles according to assessed valuation per pupil	1	2	3	4
Medians from per-pupil allocations from direct state sources	319	297	260	215

Student T = - 14.82545

Quartiles according to assessed valuation per pupil	1	2	3	4
Medians from total allocation per-pupil	512	509	550	626

Student T = 3.09559

In the first of these three tables local school districts have been ranked in terms of their AV/PP. The amount of money generated from *local sources* is then displayed for the median school district in each quartile. This display illustrates the strong role played by "ability," or local school district wealth. Those districts with high levels of assessed valuation per pupil are those which generate high levels of local revenue for their schools.

In the second table we follow the same analytical procedure, but this time we identify the amount of direct *state aid* received by the median district in each quartile. Here we find a perfect negative relationship. The lower the assessed valuation per pupil of a school district, the more state aid it receives. Superficially, it appears as though state arrangements are achieving to a high degree their objective of equalization. However, when we scrutinize this table, another fact comes to light. There is only $104 difference in state payments between the median in the quartile containing the poorest districts (quartile 1) and the median in the quartile containing the wealthiest districts (quartile 4). When we examine the third table, it is evident that this small amount of money ($104) simply does not suffice to overcome the resource advantage provided to wealthy districts. Imperfections in the state's equalization efforts are such that the median district in the high assessed valuation quartile is able to generate a total allocation which is $114 more per pupil than the median district in the low AV/PP quartile.

The linkage of the state aid to the socioeconomic status of a district can be seen in the following two tables. In the first table sample school districts are ranked by their SES and the state distributed funds are displayed for the median district in each quartile. Here, it can be seen that, while low SES districts do obtain more direct state aid per pupil than high SES districts, the dollar differences are not great and do not suffice to overcome the advantage of wealth. As we can see from the second table, high SES districts, even in the face of state aid, still manage to spend an amount for instructional purposes which is well in excess of the money spent by low SES districts.

Quartiles according to socioeconomic level	1	2	3	4
Medians from per-pupil allocation from direct state sources	269	286	288	235
Student T = −2.61048				

Quartiets according to socioeconomic level	1	2	3	4
Medians from expenditure per pupil, total instruction	335	355	329	420
Student T = 2.93829				

But What About Federal Funds? Before writing off resource quality as a present-day myth, it is necessary to consider the effects of federal funds for education. In 1967, federal appropriations accounted for almost 8 percent of all public elementary and secondary education expenditures for the entire United States.[12] If distributed in an equalizing fashion, such an amount could substantially ameliorate revenue inequalities. However, such is not the case. The relationship in Michigan between school district AV/PP and receipt of federal funds is positive. That is, wealthier school districts tend to receive more federal dollars per pupil than do poorer districts.

For the reader who is perplexed by this finding and surprised to hear that such can occur despite the existence of dramatically publicized pieces of federal legislation, such as the 1967 Elementary and Secondary Education Act, a word of explanation is in order. Federal funds flow into a state under a wide variety of legislative authorities. It is true that ESEA Title I funds must be redistributed by a state in accord with the number of children in a district whose parents' annual income is less than $2,000. However, ESEA Title I is but one authority. As examples to the contrary, in Public Laws 815 and 874, the National Defense Education Act, the Education Professions Development Act, and a number of other ESEA Titles, no such equalizing constraint is in operation. Consequently, in general, federal funds flow in a fashion which permits high SES and wealthy (high AV/PP) districts to receive as much or more federal money per pupil than 'ow SES and poor (low AV/PP) districts.[13]

The aggregate consequence of all these financial arrangements, local, state, and federal, was displayed above. There we saw the total instructional

expenditures per student in relation to residents' SES. *Again, in spite of state equalization arrangements and federal funds, disproportionately available resources in high SES districts persist in penetrating any efforts now being made at equalization.* To illustrate the raw impotence of present state equalization arrangements, Table 1 displays expenditure figures for five school districts at each end of the continuum of total expenditures per pupil.

TABLE 1.—TOTAL EXPENDITURES PER PUPIL FOR FIVE HIGHEST AND LOWEST SPENDING MICHIGAN SCHOOL DISTRICTS, 1967-68

District	Total expenditure per pupil
HIGHEST SPENDING DISTRICTS	
1. Whitefish School	$1,038.40
2. Republic Michigamme School	1,033.35
3. Dearborn City School District	998.74
4. Oak Park City School District	973.21
5. Bloomfield Hills School	959.54
Average (mean)	$1,000.65
LOWEST SPENDING DISTRICTS	
1. Beaver Island Community Schools	$ 411.96
2. Flushing Community Schools	425.82
3. Summerfield School District	432.91
4. Three Rovers Public School District	450.88
5. Hartford Public School District	456.77
Average (mean)	$ 435.67

Source:
Michigan State Department of Education. *Ranking of Michigan Public High School Districts by Selected Financial Data, 1967-68.* Bulletin 1012. Lansing: the Department, 1968.

Revisions for the 1970's

In the foregoing sections we have demonstrated that the state of Michigan and its school districts invest more resources in the schooling of higher socioeconomic status pupils. In this section we present a set of alternative arrangements for equalizing educational opportunity. These arrangements are based upon what we consider reasonable definitions of the educational and social goals implicit in a democratic ideology. We proceed in three stages: (a) to define equality of educational opportunity, (b) to describe the discrepancy between that definition and present reality, and (c) to suggest an alternative means for financing equal educational opportunity.

Defining Equality of Educational Opportunity[14]

In our society's present race for "spoils," not all runners begin at the same starting line. Children of high SES currently begin life with many advantages. Their home environment, health care, nutrition, material possessions, and geographic mobility provide them with a substantial head start when they begin schooling at age five or six. Lower SES children begin school with more physical disabilities and less psychological preparation for adjusting to the procedures of schooling. This condition of disadvantage is then compounded

103

by their having to attend schools characterized by fewer and lower quality services.

What must we do if schooling is to compensate for these disparities and to provide equality of opportunity? What actions are implied in such a goal? In responding to these questions it is important from the outset to make clear that we are *referring to equality of opportunity among groups of individuals*, that is, race, socioeconomic status, residence in city or suburb, and so on. We recognize fully that genetic differences and variations in other characteristics among individuals within such groups will continue to promote *within*-group differences in attainment. However, we reject explicitly the necessity of having differences *among* groups with regard to the equality of their opportunity. Equality of opportunity implies strongly that a representative individual of any racial or social group has the same probability of succeeding as does a representative individual of any other racial or social group. Stated in another way, given equality of opportunity, then there should be a random relationship between the social position of parents and the lifetime attainments of their offspring.

We believe strongly that the task of the school is to equalize opportunities among different social groups by the end of the compulsory schooling period. This belief is reinforced by the fact that most states require all minors to be taught until at least age 16. Inferred from this mandate is the view that formal schooling will enable representative youngsters from all social and racial groups to begin their post-school careers with equal chances of success. Although the race for spoils will still be won by the swiftest, typical individuals from all social groups should be on the same starting line at age 16 if schools are functioning properly. Our society wishes that representative children of each social group begin their adult lives with equal chances of success in matters such as pursuing further schooling, obtaining a job, and participating in the political system. Equality of educational opportunity can be interpreted in no other way.

If children born at different SES levels are to have the same set of opportunities at age 16, though starting off with different chances of success at age five, equal amounts of school resources for children at each level will not suffice. Clearly, those children who begin their schooling with the greatest disadvantage must have disproportionately greater schooling resources to reach equality of opportunity at age 16. Of course, as we have documented for Michigan, the present operation of schools leads to greater schooling resources for children from upper SES levels, a parody on the concept of equal educational opportunity. Translating school resources into dollars, more dollars must be expended on those children who typically enter school with the least initial opportunity, those from the lower socioeconomic strata.

The Opportunity Gap—Success can be thought of as a set of generally desired outcomes such as lifetime income and occupational attainment. Only about 15 percent of the low-income children are likely to achieve "lifetime success," while 50 percent and 85 percent of the medium and high SES children, respectively, should attain that goal. Yet, equality of educational opportunity requires that at the end of that period of social investment in

schooling, all social and racial groups should have an equal probability of achieving success. However, the opportunity gap is greatest for the low SES group, smaller for the medium SES group, and almost nonexistent for the highest SES group.

Capital Embodiment and Opportunity—An appropriate means of illustrating the cause and magnitude of the opportunity gap is to conduct an analysis in the context of *human capital development*. Beginning in the 1950's, economists have employed the human capital approach to understand the process of increasing social and private well-being through investing in the health, education, and training of people.[15] Briefly, economists have found that financial investments in raising the health and proficiencies of human beings yield substantial social and economic dividends to society. Indeed, when translated into monetary terms, productivity and earnings attributable to human capital investment generally exceed the rate of return associated with investments in physical capital.[16]

The concept of human capital investment is readily applicable to our concern with the opportunity gap. To a large extent, differences in opportunity among individuals from different SES levels represent differences in the amount of capital investment embodied in them. Investment in human capital, then, is defined as resources that are devoted to an individual's growth, investments which increase his proficiencies. And, at present, both the family and our larger society invest more resources in the growth and development of higher SES children than they do for lower SES ones.

Even before birth, the low SES child is more likely to face prenatal malnutrition, and in his early years he is a prominent candidate for protein starvation.[17] He is less likely to receive adequate medical and dental care as well, so he is more prone to suffer from a large variety of undetected, undiagnosed, and untreated health problems. The meager income levels associated with low SES children typically translate into less adequate shelter and a more modest over-all physical environment. These factors are less likely to stimulate cognitive development than are the richer and more varied material surroundings of his higher SES peers. Limited family income, also, inhibits or precludes travel and exposure to the large variety of worldly experiences that increase the knowledge and sophistication of the more advantaged child. Finally, and perhaps most important, both the quality and quantity of parental services tend to be less for the low SES child because he is frequently a member of a large family and lacks one or both parents.[18] Further, the low educational attainment of low SES adults limits the amount of knowledge they can transmit to their children. This is a particular drawback for verbal skill development,[19] an area upon which school success depends so heavily.

Perhaps the most important component of parental investment related to SES is that of educational services provided by parents. Apparently parents with considerable educational attainment themselves inculcate in their children much higher skill levels than do parents with less education. Indeed, the greater investment of human capital embodied in children from families with higher educational attainment can be estimated in dollar value; that is, a parent, and particularly a mother, has the option of working or providing

services to her children. The higher the educational level of the parent, the greater the value of that parent's services in the labor market, and therefore, the greater the imputed value of parental services in the home. A parent with higher educational attainment must forego a larger amount of income in order to stay home with children than a parent with lower attainment. Indeed, the educational level of parents, multiplied by the time that they invest in their children, can be converted to approximate dollar amounts of capital embodiment in each child. This can be accomplished by valuing parental educational efforts according to the market value of such services (of course, market value of services is in turn determined strongly by parents' education).[20]

Dennis Dugan, an economist, has constructed such estimates for a national sample of children. He presents calculations of the total value of parental educational services embodied in children at various age levels according to the educational level of the parents.[21] These calculations are based upon "(1) the proportion of a mother's time devoted to educationally related activities (as opposed to household chores), and (2) the number of children among whom the mother's time is divided."[22] The estimated amount of the father's time devoted to educational activities of his children is derived similarly.

For purposes of illustration, we will display only the value of mother's educational investment in children at different grade levels by educational attainment of mother. Table 2 contains these results for 1965. The figures shown are dollar values of accumulated educational services invested in the child by one source, the mother.

The six-year-old whose mother is a high-school graduate has had twice as large a maternal investment as the child whose mother terminated her education at elementary school. The child of a college graduate has 2.7 times the investment from this source as the offspring of an elementary-school

TABLE 2.—VALUE IN 1965 OF MOTHER'S EDUCATIONAL SERVICES
BY MOTHER'S EDUCATIONAL ATTAINMENT BY GRADE OF CHILD
(All amounts in 1966 dollars)

Mother's education	Grade of child			
	1	6	9	12
Elementary school				
0-7 years	$2,724	$ 3,412	$ 4,126	$ 4,989
8 years	3,379	4,231	5,135	6,235
High school				
1-3 years	3,972	5,012	6,094	7,409
4 years	6,964	8,898	10,797	13,080
College				
1-3 years	7,091	9,051	10,995	13,365
4 years	9,044	11,560	14,076	17,148
5+ years	9,322	11,919	14,644	17,978

Source:
Dugan, Dennis. The Impact of Parental and Educational Investment upon Student Achievement. Paper presented at the annual meeting of the American Statistical Association, New York City, August 21, 1969. p. 8.

104

graduate. These figures illustrate the substantial inequalities in human capital formation among children of different SES levels as they begin their formal schooling. Over the period of schooling, while all the values increase for all groups, the ratio of inequality remains constant.

Moreover, values of the mother's and the father's contributed educational services represent excellent predictors of academic success at grade 1. That is, differences in human capital formation at grade 1 are related to differences in academic performance. Dugan found, for example, that measures of human capital embodiment explain approximately 95 percent of the variance in pupil verbal skills for white first-graders and 88 percent of the variance for nonwhite first-graders.[23] Stated in another way, there is a close correspondence between the value of embodied parental services and a child's academic achievement and between the investment in a child and the academic returns to him.

Dugan also addressed himself to the relative efficacy in raising academic performance of dollars invested in school services. That is, he estimated the combined effect of parental investment and school investment on student achievement. In this way he attempted to approximate the amount of additional school investment in lower SES children which might be needed to place them on an academic par with the higher parental investment in their higher SES peers. His results are interesting, but they are limited by the use of an inadequate expenditure measure.[24] Nevertheless, he presents a provocative finding with regard to equalizing academic performances of whites and nonwhites. Dugan found that "an additional $6,662 per nonwhite student is required to raise the nonwhite mean achievement to the level of the white achievement mean for sixth-graders."[25] Distributed over the first five years of school, this translates to a mean annual expenditure of approximately $1,300 a year per nonwhite pupil above the amount which was being spent, about $400. The point is that if we are addressing ourselves to equal educational outcomes, substantially higher dollar amounts must be spent on school services for lower SES children.

Implications for School Finance

Before outlining specific approaches for financing schools for equal opportunity, it is useful to make some general statements. Most important, we wish to emphasize that there are many ways of implementing true equality of educational opportunity. The actual choice of plan is as much a function of taste and judgment as it is of technical public finance Administrative criteria, political expediency, tradition, and other factors mus all be taken into account in identifying specific arrangements for guaranteein to all children what the law has promised. The purpose of this preliminai comment is to make the reader aware, explicitly, that the following are b illustrations of means for modifying financial arrangements. They are n presented as the only approaches nor as optima. Rather they are suggested points of departure along which change might be initiated.

An Illustrative Approach—The ability of a local school district to gener te revenue from property taxes should not be allowed to serve as the primary determinant of the quality of school services it offers to children. However,

the property tax is not totally devoid of merit.[26] Indeed, some experts believe that "it would be far better to strengthen this levy than to plan for its eradication."[27] In keeping with this view, our prescription is to employ a uniform and relatively low state-wide property tax as a *partial* means for financing schools. In this form, most of the disadvantages of the property tax are eliminated while retaining the practical advantage of being able to tap a commercial source of revenue that might be left substantially untouched under other forms of taxation.[28] The revenues needed in excess of those generated from the application of a minimum state-wide property tax levy would come from state general funds to be raised through means such as income taxes, sales tax, and the like. Because of the substantial equities associated with the income tax as a revenue-raising procedure, we are predisposed toward a heavy reliance upon it as the primary means for generating the state's direct dollar contribution for education.

The state would determine the per-pupil school service expenditure requirement for children at each level on the SES spectrum. In general, the per-pupil requirement would vary inversely with the SES level of the pupils being served. Displayed below is a hypothetical index of per-pupil expenditure requirements by SES level: In this table each number represents the multiple of some arbitrary dollar amount. For example, if 1 is equal to $400, 2 is equivalent to $800 and so on. Exact dollar amounts are not represented for two reasons. First, dollar requirements fluctuate over time with shifts in educational priorities and changes in price levels. Second, exact dollar figures in such a table might give the impression that expenditure requirements are easily fixed. The truth is that these dollar relationships should be estimated initially and might have to be altered over the long run to approximate the differential costs of schooling different populations. Thus, this table depicts a general pattern where units of expenditure and their multiples are presented as the appropriate heuristic model. Of course, figures in this table are suggestive rather than based on precise estimates of need. However, the pattern of dollar requirements is meant to represent one which would more nearly approach equality of educational opportunity than does the present scheme.

Because high SES children tend to receive such a high educational endowment in their home, the scheme shown above suggests that no public preschool provision is necessary in order to fill their needs. On the other hand, the preschool period represents an ideal time for disproportionate investment to begin for lower SES children. The efficacy of preschool investment has been widely noted in both the child development literature and in practice.[29] Indeed, some particularly productive preschool programs, such as the one in Ypsilanti, Michigan, have produced substantial and

	School Level		
SES level	Preschool	Elementary	Secondary
High	-------	1.50	2.00
Medium	1.00	2.25	3.00
Low	2.00	3.00	4.00

106

long-lasting gains in achievement.[30] Accordingly, medium SES children should be provided with one-half day of preschool instruction at 1 unit per pupil and lower SES children receive a full day of preschool education at 2 units per pupil. Alternatively the state could choose to enroll lower SES pupils on a half-day basis for two years while medium SES children would attend for only one year. That is, the lower SES child would begin his preschool experience at the age of three while the middle SES child would start at age four.

Expenditures at the elementary and secondary level, as presented on page 108 also reflect the pattern required for an equal opportunity approach. The higher expenditures for all groups at the secondary level are based upon the necessity for greater specialization (and thus higher qualifications for and larger numbers of personnel) at that level. Many states already take these differences into consideration when apportioning aid to local school districts. The salient characteristics of the requirements at all levels of the matrix are that the schools must expend more dollars on lower SES groups in order to close the "opportunity gap."

One necessary adjustment would be for differential costs. The dollars available to a school district should be weighted so as to balance dollar differences in items such as land prices, labor costs, and salary level differentials among rural, urban, and suburban areas.

Once the state's expenditure requirements are established, the task becomes that of financing those requirements. The following method, or a variant of it, could be used to generate the required financial support. First, the state would require every local school district to levy a property tax at some uniform and relatively low rate. For example, a rate of 10 mills might be appropriate. The dollar difference between what this levy raised for the pupils in each school district and the state requirements for equal opportunity for those pupils would be allocated from state funds to each local school district. These revenues would be derived from general state sources with heavy reliance upon state income and sales taxes.

Obviously the equal educational opportunity requirement for a school district would be based upon a weighting scheme where the dollar amounts required for each district would be based upon the relative number of pupils in each SES group and the distribution of these across each schooling level. Now it is useful to provide an example of how the over-all plan might operate. In order to simplify the illustration, we will use the hypothetical unit requirements for elementary children suggested in the table on page 108 and we will let each unit of expenditure be equivalent to $400.

This is what the proposed financing arrangement would be for two hypothetical school districts, A and B. District A is assumed to contain all low SES children of elementary-school age. It is also a relatively low wealth district with only $7,500 of equalized assessed valuation (of the property tax base) for each pupil. On the other hand, District B is inhabited by upper SES residents, and its property tax base is substantial, $50,000 of equalized assessed valuation per pupil.

Applying the uniform tax rate of 10 mills to both districts yields $300 per pupil in District B and only $75 per pupil in A. But the state requirement for

low SES elementary-school pupils is $1,200 per pupil and for high SES pupils, $600 per pupil. Therefore, the state would grant $1,125 per pupil to District A and $300 per pupil to District B. In this way the state would fill the gap between the local contribution where uniform tax effort is mandatory and the state requirement for equal educational opportunity. This approach might be termed a "variable level" foundation program since the state requirements represent expenditure foundations below which support cannot fall.

Any suggested changes in financing the schools will be characterized by transitional problems. In such a complex area as education and its financial foundations, utopia can be approached, but it is not likely to be attained. Yet, we believe that the obstacles surrounding effective financing for equal educational opportunity are indeed surmountable. The point is that great strides forward are not costless, but they are nevertheless worthwhile if the benefits sufficiently exceed the costs, as we believe that they do in this instance.

Implementing Financial Arrangements—Any alternative financial arrangement that strives for equality not only must be theoretically sound; it also must lend itself to the realities of implementation. The financing model described above appears to meet both these criteria. It is particularly important, however, to suggest guidelines for implementation.

Perhaps the most important change required in financial arrangements is for state support to be based upon individual schools as units of expenditure rather than school districts. That is, the state should provide assistance to local school districts on the basis of school-by-school calculations; school districts should spend those dollars accordingly. The reason for focusing on and emphasizing individual schools is that there frequently are enormous differences in SES levels among schools in a district. If funds are provided to school districts on the basis of district average SES, there is too little assurance that the money will be distributed to individual schools on the basis of school SES. Indeed, where school districts have been examined on a school-by-school basis within large cities, it has been demonstrated that poor and black children attend schools which are considerably less endowed than those attended by their white, middle class counterparts. Dollar expenditures tend to be lower; and, in some cases, even compensatory monies allocated specifically for schools serving children from low income families have been siphoned off to support general school services throughout the districts.[31]

One obvious means by which funds can be conveyed directly to the schools for which they are intended, while retaining present school district boundaries, would set the following conditions: (a) Allocate locally generated revenues from the state's mandatory millage levy to all schools within the district on a per-pupil basis. (b) From the state requirements matrix compute the dollar amount per pupil needed in each school to attain equality of opportunity. (c) Grant local school districts financial support equal to the difference between the amount raised by mandatory millage and the state requirements computed for all schools in the district. (d) Require a school-by-school financial accounting each year to ensure that monies intended for particular schools were, in fact, expended in those schools. That is, unlike the present line-item accounting system in which expenditures are

reported only for the district, the state must require information on a
school-by-school basis in order to guarantee equi,y among schools. Otherwise
the leakages which currently deprive low SES pupils of additional state and
federal resources will persist. A mandatory school-by-school accounting
system is necessary if the conduits between state coffers and low SES schools
are efficiently to convey resources to the schools for which they are intended.

One further point in favor of using the school rather than the school
district as a unit of financial analysis is that it is probably easier to obtain
accurate SES information on a regular basis for the smaller units. In a study
conducted for New York State, Garms and Smith demonstrate that it is
feasible to develop an SES-related measure of educational need from
information which can be provided readily by school principals.[32] They
suggest that an index of resource need be computed from information such as
the percentages of various specified racial and ethnic minority group pupils,
the percentage of children from broken homes, the average number of schools
attended by pupils in the last three years, and the average number of years of
schooling of the father, if present, otherwise the mother. These variables in
linear combination predict approximately 70 percent of the school-to-school
variation in reading and mathematics achievement. Other measures might be
developed at the individual school level which are also easily compiled and
which are more appropriate for discerning differences in SES in rural areas.
Garms and Smith also suggest ways in which the measure of school resource
need can be woven into a state school finance formula.

Financing for Equality and School Administration—The state must
necessarily assume the dominant role in financing schools for equality, and
this poses a provocative question. Under the present system of school finance
in most states, the state decides many of the regulations and policies relevant
to local school district operation. Personnel licensing, curriculum require-
ments, staffing ratios, and mandatory expenditure levels are but a few of the
areas in which states typically dictate educational practices. Given these
procedures, it is entirely possible that if the state increases its level of
financial support to the schools, it will also attempt to increase its operational
influence over the schools.

Greater central administration from the state with its almost inevitable
imposition of greater operational uniformity would be exceedingly counter-
productive for two reasons. First, the variety of educational needs that
confront particular schools and school districts cannot be met by increased
standardization among schools. Good education is individualized; that is,
decisions affecting each child's instruction should be made as close to that
child as possible. The state level is clearly an inappropriate plane upon which
to make such decisions.

A second reason for resisting increased state operation is the sheer
technical difficulty in administering large numbers of schools. Schooling is an
activity characterized by substantial inefficiencies once a critical threshold of
individual school or school district enrollment is exceeded. The nature of
schooling is such that large scale bureaucracy appears incapable of managing
them by any but the most mummified means. Instructional innovation and
personal flexibility both seem to disappear in large school districts. With the

exception of school districts so small that they cannot provide a reasonable range of services, large operational units are a deterrent to good education.[33] An extensive survey of the related literature suggests that diseconomies of scale (inefficiencies and higher costs) are characteristic of school districts with enrollments in excess of 10,000 pupils in average daily attendance.[34] It is little wonder, then, that many school districts throughout the country either already have or are under pressure to decentralize their operations.

In short, there are sound reasons for allowing most local school districts to continue to administer their schools without additional state regulations encumbering them. Indeed, a far better case can probably be made for decentralizing decision making for the schools beyond the degree to which it presently exists.[35]

Summary

Persons suffering from educational handicaps are caught in a downward spiraling cycle of despair. On one hand they are tempted on almost every side by the advantages that can be achieved with the assistance of good schooling. On the other hand, their own pursuit of such objectives is frequently brought to an abrupt halt by the inadequacy of their education. For them as individuals the goals of our society become relatively meaningless. At best they are left to experience frustration and defeat. At worst, they may be propelled into a life of crime and decadence. From the perspective of the entire society, this human wastage is a double burden. Not only do the undereducated not contribute their share, but also everyone else is deprived of the benefits of those individuals who, if properly schooled, could have contributed more than their share. We have long since passed the point in our development where we can tolerate vast numbers of unskilled and under-developed individuals.

In this paper we have set forth a new conception of equality of educational opportunity and described new means for pursuing that goal. We are not wedded to the specifics of our proposed approach, but we are wedded to the general need for change. The gravity of the present inequitable situation is immense, yet it is difficult to motivate concern among those who possess the greatest ability to remedy the situation. If allowed to persist, present disparities in school services will almost inevitably undermine our society.

Societies that have persisted longest throughout history appear to be those that have avoided vast social and economic differences among major segments of their populations. Clearly the relative success of the United States in avoiding such extremes has been fostered significantly by the past successes of our schools. Today, however, because of a shortage of resources and an inappropriate distribution of the resources which are available, schools are no longer so successful. The preservation of equal opportunity and the reality of an open society wherein individuals rise or fall in accord with their interests and abilities demands a restructuring of present arrangements for the support and provision of school services.

112

FOOTNOTES

[1]Waller, Willard. *The Sociology of Teaching.* New York: John Wiley and Sons, 1961. 467 p.

[2]Conant, James Bryant. *Slums and Suburbs.* New York: McGraw-Hill Book Co., 1961. 147 p.

[3]Gardner, John. *Excellence, Can We Be Equal and Excellent Too?* New York: Harper and Row, 1961. 171 p.

[4]Benson, Charles S. *The Cheerful Prospect.* Boston: Houghton Mifflin Co., 1965. 134 p.

[5]The fourth arrow illustrates a feedback loop wherein the process sequence is presumed to have effects over generations. The father's post-school success influences his children's social position, and so on for their children.

[6]An independent variable which could be used in addition to or in place of socioeconomic status is race or minority group membership. That is, many of the disparities we hypothesize as occurring as a consequence of an individual being of lower socioeconomic status might also be hypothesized as occurring as a consequence of an individual being a member of a minority racial or ethnic group. The primary reason for not pursuing such a line of inquiry was lack of suitable data across school district boundaries. In addition, however, socioeconomic status is a more inclusive concept which encompasses those minority groups whose members tend to appear in disproportionate numbers in lower socioeconomic strata, as well as members of the majority.

[7]Thomas, J. Alan. *School Finance and Educational Opportunity.* Lansing: Michigan Department of Education, 1968. 418 p.

[8]Guthrie, James W., and others. *Schools and Inequality.* Washington, D. C.: Urban Coalition, 1969. p. 92-173.

Also, the evidence for proposition 2 regarding school service quality and pupil achievement is contained in: Guthrie, James, and others. "A Survey of School Effectiveness Studies." *Do Teachers Make a Difference?* Washington, D. C.: Government Printing Office, 1970. In process.

Evidence supporting proposition 3 regarding pupil academic achievement and post-school performance is contained in: Levin, Henry M., and others. "School Achievement and Post-School Opportunity: A Review," forthcoming in *Review of Educational Research.*

[9]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 No. 2389. Stanford, Calif.: Stanford University, School of Education, 1966. Chapter IV, p. 95-156.

Brazer, Harvey E. *City Expenditures in the United States.* New York: National Bureau of Economic Research, 1959. 82 p.

Dye, Thomas R. "Politics, Economics, and Educational Outcomes in the States." *Educational Administration Quarterly* 3:28-47; Winter 1967.

Miner, Jerry. *Social and Economic Factors in Spending for Public Education.* Syracuse, N. Y.: Syracuse University Press, 1963. 159 p.

Sacks, Seymour, and Harris, Robert. "The Determinants of State and Local Government Expenditures and Intergovernmental Flows of Funds." *National Tax Journal* 17:75-85; March 1964.

[10]Michigan has an arrangement whereby County Allocation Boards control 15 mills on the property tax. Our analyses demonstrate that these boards tend to allocate a greater proportion of this total to high SES districts than they do to low SES districts. As a consequence, low SES districts must more frequently appeal to their residents in tax over-ride elections.

[11]A dramatic example of municipal overburden is provided by Detroit which in 1967-68 had the *second lowest tax rate for schools but highest total municipal tax rate* when compared with 19 of its surrounding suburban school districts.

[12]Simon, Kenneth B., and Grant, Vance W. *Digest of Educational Statistics, 1967 Edition.* U. S. Department of Health, Education, and Welfare, Office of Education. Washington, D. C.: Government Printing Office, 1967. p. 54.

[13]A great deal of the federal money redistributed by a state is distributed on the basis of project proposals submitted by local districts to state authorities. Generally the wealthier districts have the personnel available to write the proposals. Moreover, if the program requires matching funds, such as with NDEA Title III, poor districts are at a disadvantage to put up the local district's share. For a detailed description of the inequities involved in the redistribution of federal funds, see: Guthrie, James W., and Lawton, Stephen B. "The Distribution of Federal School Aid Funds: Who Wins? Who Loses?" *Educational Administration Quarterly*, Winter 1970.

Johnson, I. T. "An Evaluation of NDEA Title III." *Phi Delta Kappan* 48:497-501; June 1967.

[14]Almost the entire issue of the Winter 1968 issue of *Harvard Educational Review* is devoted to "Equal Educational Opportunity." The article entitled "The Concept of Equality of Educational Opportunity," pages 7-22, by James S. Coleman, provides historical perspective on the development of the concept.

[15]Becker, Gary S. *Human Capital*. New York: Columbia University Press, 1964. 187 p.

[16]Schultz, Theodore W. "The Rate of Return in Allocating Investment Resources to Education." *Journal of Human Resources* 2:293-309; Summer 1967.

[17]Scrimshaw, Nevin S. "Infant Malnutrition and Adult Learning." *Saturday Review* 51:64-66; March 1968.

[18]For a discussion of the effect of family structure see: Rainwater, Lee, and Yancey, William L., editors. *The Moynihan Report and the Politics of Controversy*. Cambridge, Mass.: M.I.T. Press, 1967. 493 p.

[19]Olim, Ellis G.; Hess, Robert D.; and Shipman, Virginia. "Role of Mothers' Language Styles in Mediating Their Preschool Children's Cognitive Development." *School Review* 75:414-24; Winter 1967.

Hess, Robert D. "Maternal Behavior and the Development of Reading Readiness in Urban Negro Children." *Self and Society*. (Edited by Malcolm P. Douglass.) 35th Annual Claremont Reading Conference. Claremont, Calif.: Claremont Graduate School Curriculum Laboratory, 1968. p. 83-99.

[20]It is important to make clear that the dollar amounts derived in this fashion are only indicators of the differences in parental investment between lower and higher SES children. They are meant to be illustrative rather than conclusive. Most important they are meant to measure the difference in capital embodiment between children at different SES levels attributable to only one component of human investment, parents' services. Differences in human capital owing to differential investment in health, nutrition, physical environment, and other factors are not measured directly in our estimates.

[21]Dugan, Dennis J. *The Impact of Parental and Educational Investments upon Student Achievement*. A paper presented at the Annual Meeting of the American Statistical Association, New York City, August 21, 1969.

[22]*Ibid.*, p. 5.

[23]*Ibid.*, Table 3.

[24]Dugan used state averages for expenditure rather than district-wide or school averages. The latter are the most appropriate for this type of analysis, but they are not always available.

[25]Dugan, Dennis, *op. cit.*, p. 24.

[26]For a detailed discussion of the advantages and disadvantages of the property tax see: Netzer, Dick. *Economics of the Property Tax*. Washington, D. C.: Brookings Institution, 1956. Chapter VII, p. 164-91.

[27]Burkhead, Jesse. *State and Local Taxes for Public Education*. Syracuse, N. Y.: Syracuse University Press, 1963. p. 105.

[28]Admittedly, this is a matter of practicality. If business firms are to be taxed to support local or state government, it is more reasonable and theoretically more efficient to tax them on the basis of their output as measured by value-added than to tax them on the basis of their real property, equipment, and inventories. On a practical basis, it is probably easier to levy and administer a property tax than what is owed on value-added. See: Brazer, Harvey E. "The Value of Industrial Property as a Subject of Taxation." *Canadian Public Administration* 55:137-47; June 1961.

[29] For some of the research basis supporting formal educational preschool experiences for low SES children see: Bloom, Benjamin S. *Stability and Change in Human Characteristics.* New York: John Wiley and Sons, 1964. 237 p.

[30] For a description of the Ypsilanti program see: Weikart, David P. *Preschool Intervention: A Preliminary Report of the Perry Preschool Project.* Ann Arbor, Mich.: Campus Publishers, 1967.

For an evaluation of the Ypsilanti program and other programs for disadvantaged children see: Hawkridge, D.; Chalupsky, A.; and Roberts, A. O. H. *A Study of Selected Exemplary Programs for the Education of Disadvantaged Children.* U. S. Office of Education Cooperative Research Project No. 089013. Washington, D. C.: American Institutes for Research, September 1968.

[31] For evidence of within-district financial discrimination see: Levin, Henry M. "Decentralization and the Finance of Inner-City Schools." *Fiscal Planning for Schools in Transition.* Proceedings of the Twelfth Annual National Conference on School Finance. Washington, D. C.: National Education Association, 1970. p. 66-72.

Poignant evidence of misallocation of funds intended for low SFS schools is found in a California State Department of Education report for the City of Oakland. Oakland had received $10 million in federal funds to aid some 12,000 ghetto youngsters. Instead, much of the money was spent for services throughout the district. Thus, while financing was provided to give all ghetto elementary-school children additional reading and language arts instruction, only 2 out of 5 actually received such assistance. Of 477 staff positions approved for the "target" schools, only 276 employees could be accounted for (the funds for the other positions presumably were financing personnel at other schools). Further, one-third of the total budget for instruction supported administrators working in the district's central office. This resulted in a severe understaffing of schools for which the federal and state governments had designed the grants. See the review of the report in *This World, San Francisco Sunday Examiner and Chronicle*, August 3, 1969, p. 5 and 6.

[32] Garms, Walter, I., and Smith, Marck C. *Development of a Measure of Educational Need and Its Use in a State School Support Formula.* Report on the Study of the New York State School Support Formula, Staff Study No. 4. Albany: New York State Conference Board, June 1969.

[33] Barker, Roger G., and Gump, Paul L. *Big School, Small School: High School Size and Student Behavior.* Stanford, Calif.: Stanford University Press, 1964. 250 p.

[34] James, H. Thomas, and Levin, Henry M. "Financing Community Schools." *Community Control of Schools.* Washington, D.C.: Brookings Institution, 1970. p. 250-74.

[35] *Ibid.*

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2. Benson, Charles S. "State Aid Patterns." *Public School Finance.* (By Jesse Burkhead) Syracuse: Syracuse University Press, 1964. p. 205-35.

3. Bendix, Reinhard, and Lipset, Seymour M., editors. *Class, Status and Power.* Glencoe, Ill.: Free Press, 1953. 725 p.

4. Bloom, Benjamin S.; Davis, Allison; and Hess, Robert. *Compensatory Education for Cultural Deprivation.* New York: Holt, Rinehart and Winston, 1965. 179 p.

5. Coleman, James S., and others. *Equality of Educational Opportunity.* Washington, D. C.: Government Printing Office, 1966. 737 p.

6. 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. 297 p.

7. Garms, Walter I. "The Financial Characteristics and Problems of Large City School Districts." *Educational Administration Quarterly*, Winter 1967.

8. Garms, Walter I., and Smith, Marck C. *Development of a Measure of Educational Need and Its Use in a State School Support Formula.* Report on the Study of the New York State School Support Formula, Staff Study No. 4. Albany: New York State Conference Board, June 1969.

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The Impact of Present Patterns of Funding Education for Urban Schools

Joel S. Berke

RAISING ADEQUATE REVENUES for the support of education is a serious problem in a large proportion of the country's school systems. There are, of course, exceptions: a limited number of enclaves with high nonresidential taxable resources relative to the number of school children; some very wealthy suburban communities with high levels of residential property, income, and educational expectations; and some rural districts with stable or declining populations and relatively minimal educational demands. But in most cities, suburbs, and predominantly rural areas heightened demand for educational services on the part of concerned parents and salaries on the part of professionals are running head on into local taxpayer revolts, state economy drives, and a pause in increased federal spending. In many areas of the country, we find that school shutdowns, the elimination of special projects, and increasing average class size are being seriously discussed as necessary steps in the face of fiscal crises.

Hardest hit of all are the large cities of the country because present patterns of funding fail to compensate for three interacting phenomena which strike there most directly. First, cities are finding it increasingly difficult to support educational services from their own tax resources. Second, education in central cities imposes higher costs than are found in less densely populated areas because of the composition of the city pupil population and because of higher urban costs. Third, cities frequently function under a legal framework far more restrictive in its regulations and far less rewarding in its aid systems than is true of the regulations affecting suburban and rural school districts.

Complicating the plight of large city schools is the existence of relative affluence in their immediate environs. Sacks and Campbell, and the Advisory Commission on Intergovernmental Relations[1] have studied this phenomenon extensively, using a twofold central city-suburban analytical framework which recognizes that metropolitan areas are the context of competition for school systems—for tax dollars, for instructional personnel and the educa-

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tional program, and ultimately for the graduates of those school systems as they compete for jobs in the metropolitan labor market.

Emphasis in this paper will be placed on the disparities between central cities and their surrounding suburban areas in the nation's 37 largest metropolitan areas (SMSA's). The magnitude of the socioeconomic and fiscal differentiation that this analysis elucidates indicates that cities and their suburban rings, as fiscal systems, face different problems and have different abilities to deal with those problems.

However, in utilizing this framework we do not mean to suggest that all suburbs have similar economic or educational characteristics. The same kinds of problems that affect central cities may also, of course, be found in some surrounding communities that have undergone urbanization in recent years and that now display many of the characteristics that central cities do. To the extent that they share these characteristics, suburban areas also share the urban financial problems.

Unfortunately, an analysis that focuses upon the relationship of educational to socioeconomic and noneducational fiscal developments in a sample as extensive as the 37 largest SMSA's cannot at the same time discuss individual suburban communities. For one thing, the noncoterminality of suburban systems of school and nonschool government defies comparison. There are even difficulties in the case of large cities. Only in states where school districts are coterminous with individual municipal areas (i.e., primarily the New England states) can fiscal comparisons be made between central city and individual suburban governments. Therefore, both the theoretical considerations mentioned above and the practical considerations of data availability dictate an analysis that aggregates the suburban component of individual metropolitan areas and compares that suburban component with its core city.

Much of the data drawn upon for this study were taken from published and unpublished materials of the 1967 Census of Governments. Population estimates were based on interim Census and Rand McNally estimates. Personal income data were allocated to cities and suburbs on the basis of 1966 *Sales Management* and *Survey of Current Business*.

Since usually a number of governments overlie the central cities in the 37 largest metropolitan areas, finances had to be allocated to the cities by relative population or tax collections, as appropriate. In the case of allocating overlying governmental finances by tax allocators, central city finance reports from the cities in question were examined to determine the amounts of taxes collected within the city by these overlying governments.

Metropolitan Socioeconomic and Fiscal Development

The roots of the crisis in urban educational finance may be found in general patterns of American metropolitan development. Central cities are growing at a less rapid rate than are their suburbs,[2] and the population shift has resulted in a concentration of lower income and minority group residents in the cities. Between 1960 (Table 1) and 1967 the unweighted average population growth in large central cities equalled 3.8 percent including annexations, while the related suburban growth was 17.6 percent. Despite

TABLE 1.—POPULATION CHARACTERISTICS OF CENTRAL CITIES
AND SUBURBS: 37 LARGEST STANDARD METROPOLITAN STATISTICAL AREAS

Area	Percent central city population is of SMSA population		Population growth, 1960 to 1967	
	1960	1967	Central city	Suburbs
NORTHEAST	38.0%	34.3%	2.3%	16.3%
Washington, D.C.	36.8	29.8	5.4	44.6
Baltimore, Md.	52.1	47.0	—1.7	20.3
Boston, Mass.	22.4	20.9	—3.9	4.9
Newark, N.J.	24.0	21.0	—2.5	14.9
Paterson-Clifton-				
Passaic, N.J.	23.6	21.6	1.5	13.8
Buffalo, N.Y.	40.8	36.4	—9.6	8.8
New York, N.Y.	72.7	70.0	3.0	18.1
Rochester, N.Y.	43.5	36.8	—5.5	24.9
Philadelphia, Pa.	46.1	43.3	2.0	14.2
Pittsburgh, Pa.	25.1	23.6	—7.3	0.8
Providence, R.I.	30.5	26.5	—6.0	14.2
MIDWEST	47.9	45.4	2.1	13.2
Chicago, Ill.	57.1	52.4	-0.9	19.5
Indianapolis, Ind.	50.5	50.4	8.3	8.4
Detroit, Mich.	44.4	40.5	—0.6	16.5
Minneapolis-St. Paul,				
Minn.	53.7	47.8	—2.9	22.9
Kansas City, Mo.	43.5	43.3	9.4	10.4
St. Louis, Mo.	35.6	30.5	—7.7	16.3
Cincinnati, Ohio	39.6	37.0	—0.5	11.0
Cleveland, Ohio	45.8	39.7	—7.5	19.1
Columbus, Ohio	62.4	66.9	21.1	—0.3
Dayton, Ohio	36.1	33.1	1.4	15.9
Milwaukee, Wis.	58.0	57.5	3.2	5.3
SOUTH	60.5	57.3	10.7	22.5
Miami, Fla.	31.2	30.1	11.4	17.4
Tampa-St. Petersburg,				
Fla.	59.1	57.5	10.7	17.9
Atlanta, Ga.	47.9	44.0	9.8	28.4
Louisville, Ky.	53.9	50.0	0.4	17.1
New Orleans, La.	69.2	62.3	3.4	40.2
Dallas, Texas	61.0	62.3	24.6	15.3
Houston, Texas	66.1	66.8	22.0	18.5
San Antonio, Texas	95.9	85.3	3.2	320.7
WEST	45.1	41.6	8.3	24.1
Los Angeles-Long Beach,				
Calif.	41.9	39.1	11.4	25.0
San Bernardino-Riverside-				
Ontario, Calif.	28.2	28.3	32.8	27.5
San Diego, Calif.	55.5	55.2	15.3	16.8
San Francisco-Oakland,				
Calif.	41.8	34.8	—6.8	25.5
Denver, Colo.	53.1	44.9	—1.0	37.8
Portland, Oreg.	45.3	42.0	3.3	18.2
Seattle, Wash.	50.3	47.0	3.1	17.6
UNWEIGHTED AVERAGES	47.2%	43.9%	3.8%	17.6%*

TABLE 2.—POPULATION DENSITY OF CENTRAL CITIES AND SUBURBS:
37 LARGEST STANDARD METROPOLITAN STATISTICAL AREAS

| Area | Population density (per sq. mile) | | | | Percent increase, 1960 to 1967 | |
| | 1960 | | 1967 | | | |
	Central city	Suburbs	Central city	Suburbs	Central city	Suburbs
NORTHEAST	14,075	975	13,849	1,108	−2.2%	17.6%
Washington, D.C.	12,525	574	13,207	830	5.4	44.6
Baltimore, Md.	12,520	408	12,313	490	−1.7	20.1
Boston, Mass.	15,157	1,226	14,565	1,469	−3.9	19.8
Newark, N.J.	16,883	1,897	16,458	2,179	−2.5	14.9
Paterson-Clifton-Passaic, N.J.	12,161	2,246	12,348	2,246	1.5	13.8
Buffalo, N.Y.	12,995	494	11,741	537	−9.6	8.7
New York, N.Y.	25,940	1,586	26,730	1,873	3.0	18.1
Rochester, N.Y.	8,611	182	8,135	227	−5.5	24.7
Philadelphia, Pa.	15,523	684	15,833	781	2.0	14.2
Pittsburgh, Pa.	10,987	602	10,182	606	−7.3	0.7
Providence, R.I.	11,528	830	10,833	947	−6.0	14.1
MIDWEST	8,884	449	8,550	518	−4.0	13.4
Chicago, III.	15,993	763	15,856	912	−0.9	19.5
Indianapolis, Ind.	6,804	155	6,217	169	−8.6	9.0
Detroit, Mich.	12,102	1,153	12,029	1,343	−0.6	16.5
Minneapolis-St. Paul, Minn.	7,584	343	7,362	421	−2.9	22.7
Kansas City, Mo.	3,658	234	3,467	260	−5.2	11.1
St. Louis, Mo.	12,295	334	11,346	388	−7.7	16.2
Cincinnati, Ohio	6,527	369	6,410	410	−1.8	11.1
Cleveland, Ohio	11,528	716	10,668	853	−7.5	19.1
Columbus, Ohio	5,276	202	5,009	205	−5.4	1.5
Dayton, Ohio	7,715	278	7,189	322	−6.8	15.8
Milwaukee, Wis.	8,237	393	8,500	414	3.2	5.3
SOUTH	4,389	209	4,532	262	2.7	23.1
Miami, Fla.	8,579	320	9,559	376	11.4	17.5
Tampa-St. Petersburg, Fla.	3,710	268	3,659	320	−1.4	19.4
Atlanta, Ga.	3,584	333	3,934	428	9.8	28.5
Louisville, Ky.	6,620	394	6,644	461	0.4	17.0
New Orleans, La.	3,061	158	3,165	222	3.4	40.5
Dallas, Texas	2,428	105	2,871	124	18.2	18.1
Houston, Texas	2,860	81	2,528	98	−11.6	21.0
San Antonio, Texas	4,268	16	3,896	69	−8.7	331.3
WEST	6,668	295	5,332	370	−14.7	25.0
Los Angeles-Long Beach, Calif.	5,635	901	5,792	1,138	2.8	26.3
San Bernardino-Riverside-Ontario, Calif.	3,096	22	2,313	28	−25.3	27.3
San Diego, Calif.	2,985	113	2,153	136	−27.9	20.4
San Francisco-Oakland, Calif.	11,420	647	10,645	813	−6.8	25.7
Denver, Colo.	6,956	121	4,991	168	−28.2	38.8
Portland, Oreg.	5,563	125	4,425	149	−20.5	19.2
Seattle, Wash.	6,793	133	7,005	156	3.1	17.3
UNWEIGHTED AVERAGE..........	8,922	525	8,640	607	−4.1%	18.4%*

Source:
U.S. Department of Commerce, Bureau of the Census. Provisional Estimates of the Population of 100 Large Metropolitan Areas: July 1, 1967. Population Estimates, Series P-25, No. 411. Washington, D.C.: Government Printing Office, December 5, 1968. 15 p. City population estimates are from the 1967 Census of Governments, Compendium of Government Finances, Vol. 4, No. 5, or are from Rand McNally estimates of large city population data in 1966. 1960 population data are from the 1960 Census of Population. Area data are from the City-County Data Book [1967] updated to take into account various central city annexations where they have occurred post-1960.
*Does not include outside central city of San Antonio.

this slower growth—and in some cases even the total absence of growth—population densities in the cities continued to exceed those in the suburbs by an average of 14 times, and was more than 20 times higher in many central cities of the northeast and midwest (Table 2).

The differential socioeconomic character of central cities and suburban populations may be seen in the following figures: central city black population has risen to about 21 percent according to latest estimates; surrounding areas have a fairly stable 5 percent. Income differences also are extreme, with central city average family income running more than $1,500 to $2,000 behind suburban incomes according to two recent surveys.[3] Significantly higher proportions of poor families and significantly lower proportions of families in more comfortable circumstances live in cities. Nineteen percent of city families have annual incomes under $4,000 compared with 12 percent for suburban families; 33 percent of city families have incomes over $10,000 compared with 45 percent in the suburbs.[4]

Economic activity shows a similar picture of central city disadvantage. In the 10-year period, 1958 to 1967, retail sales increased at a real rate of 12.6 percent in central cities of the 37 largest metropolitan areas; at the same time suburban retail sales increased by 105.8 percent. In another light, the central city share of metropolitan retail sales declined from 63 percent in 1958 to 54 percent in 1963 to 49 percent in 1967 (Table 3). Other indicators tell a similar tale. Employment in manufacturing and wholesaling is absolutely declining in central cities while increasing in the outside areas.[5]

Tax Base Deterioration

One major consequence of these trends for educational finance is the decreased capacity of urban communities to raise and to devote resources to the support of their schools. Let us turn to the revenue problem first. The socioeconomic phenomena noted above have combined to depress the income base of central cities relative to their suburbs and to cause a much slower growth in the urban property tax base. Since the income of its residents is a major source of public resources, the position of cities as relatively low-income areas is a basic problem for educational support. More directly, however, it is the property tax base that is tapped for virtually all locally raised revenue for education. The relative failure of urban property values to increase with economic growth is, therefore, of immense and disquieting implication for schoolmen.

To start with, with the exception of some southern and western areas, most central cities have lower per-capita residential property values than do their suburbs. Similarly, average household values are lower in cities than in their suburbs in 18 of the 19 largest northeastern and midwestern SMSA's for which reports are available (Table 4).

What is probably more important, however, is that the trend is toward an intensification of these disparities. In 14 of the 17 largest SMSA's (where there were neither reassessments nor annexations) in the northeast and the midwest between 1961 and 1966 (the latest year for which comprehensive data are available), property values grew by less than 10 percent. Three actually declined over the period. In none of the suburban rings in those 20

TABLE 3.—RETAIL SALES, DEFLATED BY GENERAL PRICE INCREASE
IN CENTRAL CITY AND 37 LARGEST STANDARD
METROPOLITAN STATISTICAL AREAS

Area	Percent of retail sales in Central City			Percent increase (real) in retail sales, 1958 to 67	
	1958	1963	1967	Central City	Suburbs
NORTHEAST	50.7%	42.6%	37.7%	−0.3%	75.2%
Washington, D.C.	52.1	42.1	32.9	10.5	134.8
Baltimore, Md.	71.4	58.1	53.4	4.9	128.2
Boston, Mass.	38.9	31.2	26.0	−1.4	79.2
Newark, N.J.	30.0	25.8	21.2	−14.1	37.1
Paterson-Clifton- Passaic, N.J.	36.0	23.9	24.6	0.9	74.5
Buffalo, N.Y.	52.2	40.1	38.9	−9.9	54.7
New York, N.Y.	72.9	67.1	64.8	9.7	60.2
Rochester, N.Y.	60.4	52.9	48.5	18.1	91.3
Philadelphia, Pa.	51.1	43.4	40.2	6.2	65.4
Pittsburgh, Pa.	37.5	34.1	33.5	7.8	28.7
Providence, R.I.	55.7	50.4	31.2	−36.3	73.1
MIDWEST	66.0	56.2	48.8	9.5	127.1
Chicago, Ill.	65.3	56.9	51.5	5.3	86.6
Indianapolis, Ind.	76.8	65.5	60.4	20.0	160.8
Detroit, Mich.	51.1	42.7	36.1	0.7	86.4
Minneapolis-St. Paul, Minn.	73.4	61.5	54.4	7.9	149.7
Kansas City, Mo.	59.9	63.3	50.1	55.2	64.3
St. Louis, Mo.	48.1	37.5	32.7	−7.6	76.2
Cincinnati, Ohio	64.2	57.0	45.0	4.6	129.4
Cleveland, Ohio	74.0	54.8	39.6	−15.2	269.1
Columbus, Ohio	80.2	69.0	67.2	22.8	141.9
Dayton, Ohio	60.5	47.4	41.3	3.6	125.5
Milwaukee, Wis.	73.1	63.1	58.4	7.5	108.3
SOUTH	74.4	68.6	64.5	28.7	108.3
Miami, Fla.	54.9	40.4	37.5	−2.5	98.2
Tampa-St. Petersburg, Fla.	75.4	66.6	65.8	30.9	108.9
Atlanta, Ga.	71.4	62.8	57.6	37.7	153.9
Louisville, Ky.	70.5	64.0	57.5	14.0	101.8
New Orleans, La.	79.0	71.3	65.3	21.0	141.9
Dallas, Texas	77.7	71.2	68.4	36.6	119.2
Houston, Texas	75.7	82.4	74.8	55.9	63.3
San Antonio, Texas	91.2	90.0	89.6	36.4	79.9
WEST	61.5	52.3	49.0	20.2	119.0
Los Angeles-Long Beach, Calif.	43.8	41.3	39.9	22.2	75.4
San Bernardino-Riverside- Ontario, Calif.	44.9	42.1	NA	NA	NA
San Diego, Calif.	64.0	56.4	53.9	25.6	91.8
San Francisco-Oakland, Calif.	54.5	48.0	43.4	16.3	81.6
Denver, Colo.	70.5	55.9	53.3	11.1	132.4
Portland, Oreg.	76.3	58.8	59.6	28.1	180.3
Seattle, Wash.	71.7	63.5	54.3	18.0	152.5
UNWEIGHTED AVERAGE	63.0%	54.1%	49.3%	12.6%	105.8%

Sources:
Computed from: U.S. Department of Commerce, Bureau of the Census. Census of Business, 1958, 1963, and 1967. Vol. II, Part I. Washington, D.C.: Government Printing Office, 1961, 1963, and 1968.

120

TABLE 4.—AVERAGE HOUSEHOLD VALUE, CENTRAL CITY AND OUTSIDE
CENTRAL CITY, 37 LARGE STANDARD STATISTICAL AREAS

Area	1961			1966		
	Central City	Suburbs	Ratio, Central City to suburbs	Central City	Suburbs	Ratio, Central City to suburbs
NORTHEAST						
Washington, D.C.	$18,900	$19,851	1.05	$22,300	$25,589	1.15
Baltimore, Md.	9,200	14,400	1.57	8,900	17,096	1.92
Boston, Mass.	13,200	NA	NA	14,900	NA	NA
Newark, N.J.	12,200	20,483	1.68	16,000	23,429	1.46
Paterson-Clifton-						
Passaic, N.J.	NA	NA	NA	19,000	25,359	1.33
Buffalo, N.Y.	NA	NA	NA	9,500	18,252	1.92
New York, N.Y.	20,200	20,711	1.03	21,700	24,811	1.14
Rochester, N.Y.	11,900	18,728	1.57	11,000	20,958	1.91
Philadelphia, Pa.	8,500	13,880	1.63	8,800	16,226	1.84
Pittsburgh, Pa.	13,200	13,772	1.04	11,600	12,623	1.09
Providence, R.I.	12,600	NA	NA	16,600	NA	NA
MIDWEST						
Chicago, Ill.	18,000	19,693	1.09	17,300	18,965	1.10
Indianapolis, Ind.	11,900	16,289	1.37	10,400	16,134	1.55
Detroit, Mich.	11,400	NA	NA	19,600	NA	NA
Minneapolis-St. Paul,						
Minn.	14,107	17,683	1.25	15,807	16,930	1.07
Kansas City, Mo.	11,368	13,054	1.15	12,169	9,128	0.75
St. Louis, Mo.	12,300	14,571	1.18	12,100	16,272	1.35
Cincinnati, Ohio	15,900	19,039	1.19	15,800	18,190	1.15
Cleveland, Ohio	14,500	23,124	1.59	14,800	23,785	1.61
Columbus, Ohio	13,900	18,446	1.33	15,100	19,276	1.28
Dayton, Ohio	NA	NA	NA	13,300	16,578	1.25
Milwaukee, Wis.	14,700	NA	NA	15,900	NA	NA
SOUTH						
Miami, Fla.	NA	NA	NA	17,500	16,093	0.92
Tampa-St. Petersburg,						
Fla.	NA	NA	NA	NA	NA	NA
Atlanta, Ga.	15,000	13,027	0.87	15,761	12,478	0.79
Louisville, Ky.	10,300	13,180	1.28	11,900	16,612	1.40
New Orleans, La.	17,300	14,200	0.82	19,500	17,700	0.91
Dallas, Texas	NA	NA	NA	NA	NA	NA
Houston, Texas	NA	NA	NA	NA	NA	NA
San Antonio, Texas	8,900	17,305	1.94	NA	NA	NA
WEST						
Los Angeles-Long Beach,						
Calif.	20,435	20,565	1.01	28,958	24,234	0.84
San Bernardino-Riverside-						
Ontario, Calif.	NA	NA	NA	NA	NA	NA
San Diego, Calif.	NA	NA	NA	19,000	16,734	0.88
San Francisco-Oakland,						
Calif.	21,416	20,639	0.96	30,286	26,000	0.84
Denver, Colo.	15,200	15,674	1.03	16,200	15,523	0.96
Portland, Oreg.	10,200	11,833	1.16	12,200	15,681	1.29
Seattle, Wash.	15,200	15,585	1.03	17,400	15,946	0.92

TABLE 5.—GROWTH OF PROPERTY VALUES IN CENTRAL CITIES & SUBURBS
37 LARGEST STANDARD METROPOLITAN STATISTICAL AREAS

Area	Total SMSA property value (millions)[a]		Percent of value in Central City		Percent of growth in value, 1961-66	
	1961	1966	1961	1966	Central City	Suburbs
NORTHEAST			43.1%	37.8%	18.2%	53.2%
Washington, D.C.	$ 5,406	$ 8,686	43.0	34.9	30.2	83.6
Baltimore, Md.	4,124	5,074	47.9	40.6	4.3	40.3
Boston, Mass.	5,799	4,462	23.1	16.7	2.3	52.8
Newark, N.J.	2,864	7,095	20.8	17.6	109.0[b]	157.9[b]
Paterson-Clifton-						
Passaic, N.J.	1,774	8,289	NA	NA	NA	NA
Buffalo, N.Y.	2,405	2,555	44.6	42.1	0.3	11.0
New York, N.Y.	32,703	40,738	79.8	78.3	22.1	48.5
Rochester, N.Y.	1,349	1,644	49.4	41.6	2.5	40.8
Philadelphia, Pa.	6,901	9,055	58.4	48.4	8.8	62.6
Pittsburgh, Pa.	3,978	4,407	30.2	27.9	2.2	14.5
Providence, R.I.	1,766	2,001	33.7	29.7	-0.2	20.2
MIDWEST			48.8	41.3	6.9	38.9
Chicago, Ill.	16,339	18,915	49.4	44.5	4.5	26.8
Indianapolis, Ind.	1,110	1,462	50.1	43.4	14.0	49.5
Detroit, Mich.	6,830	8,570	48.9	37.2	-4.6	54.3
Minneapolis-St. Paul,						
Minn.	840	1,039	59.6	49.1	1.8	56.0
Kansas City, Mo.	1,150	1,362	55.0	52.8	13.8[c]	24.1[c]
St. Louis, Mo.	3,744	4,348	32.8	29.8	5.7	21.2
Cincinnati, Ohio	2,548	3,548	42.3	30.6	7.4	67.5
Cleveland, Ohio	4,389	4,915	40.4	34.3	-5.1	23.5
Columbus, Ohio	1,487	1,810	57.9	56.0	21.9[c]	31.6[c]
Dayton, Ohio	1,392	1,665	NA	30.3	NA	NA
Milwaukee, Wis.	3,213	3,916	51.6	46.5	9.7	34.9
SOUTH			62.4	48.4	87.4	129.9
Miami, Fla.	2,540	5,556	NA	29.2	NA	NA
Tampa-St. Petersburg,						
Fla.	1,849	2,763	NA	NA	NA	NA
Atlanta, Ga.	1,157	1,859	43.5	33.7	24.7	88.4
Louisville, Ky.	959	3,524	50.9	49.1	227.3[b]	251.8[b]
New Orleans, La.	769	899	83.0	78.2	10.2	49.6
Dallas, Texas	1,028	1,461	NA	NA	NA[c]	NA[c]
Houston, Texas	1,710	2,237	NA	51.7	NA[c]	NA[c]
San Antonio, Texas	494	577	72.3	NA	NA	NA
WEST			49.7	44.3	16.5	44.4
Los Angeles-Long Beach,						
Calif.	10,552	14,928	40.1	41.6	44.4	39.4
San Bernardino-Riverside-						
Ontario, Calif.	1,199	1,811	NA	NA	NA	NA
San Diego, Calif.	1,303	1,651	54.5	54.3	26.2	27.3
San Francisco-Oakland,						
Calif.	3,731	5,316	39.6	33.3	19.6	57.4
Denver, Colo.	1,444	1,795	55.7	49.9	11.2	40.8
Portland, Oreg.	1,177	1,190	53.0	40.2	-23.4[b]	28.8[b]
Seattle, Wash.	1,064	1,532	55.5	46.7	21.2	72.4
TOTAL			48.9%	41.9%	21.1%	54.4%

Sources:
U.S. Department of Commerce, Bureau of the Census. Census of Governments, 1962 and 1967, Volume II, Taxable Property Values. Washington, D.C.: Government Printing Office, 1963 and 1968.

[a] Refers to gross locally assessed real property before exemptions.

[b] Assessment.

[c] Annexation.

areas was there less than a 10 percent growth. In the northeast, suburban property values climbed an average three times as much as did those of the central cities; in the midwest, suburban property appreciation was better than six times higher than in the core cities. For all sections of the country, suburban property growth rate was more than two and one-half times that of the central cities (Table 5).

Needless to add, growth in educational expenditures far outstrips this slow rate of growth in the urban property tax base. A study by James, Kelly, and Garms documented this phenomenon in 14 large cities between 1930 and 1960.[6] Their finding was that per-pupil educational expenditures had risen three times as fast as property values.

The Problem of Municipal Overburden

Taxable resources, then, are scarcer—and getting scarcer yet—in the core cities than in most other parts of metropolitan America. But what makes the picture even bleaker for urban schools is that cities cannot devote as large a share of the resources they do have to education as can suburban districts. The immense demands for general government services, the municipal overburden for health, public safety, sanitation, public works, transportation, public welfare, public housing, recreation, to name some of the most obvious, place a far heavier toll on the dense core than they do on the less populous environs. In the aggregate, this phenomenon may be seen in the fact that central cities devoted nearly 65 percent of their budgets to noneducational services; outlying communities devoted less than 45 percent of their expenditures to these purposes. The reverse of these figures may be obvious, yet they are so important they need stating: core cities can assign only a third of their funds to education, while neighboring communities spend consistent-ly over half of their public money for their schools.

Putting this in dollar terms for 1966, central cities spent an average of $230 per capita on noneducational expenditures while suburban areas spent only $138. Suburbs, however, outspent the central cities for education by $170 to $136 per capita. In total, then, despite their relatively deteriorating resource base, central cities have supported total expenditure levels 18 percent higher on the average than have their suburbs (Table 6).

Cities spend less per pupil for education than do other parts of metropolitan areas. The cities also raise about 30 percent less per capita (Table 7) for education from local taxes. As a result they are sometimes accused of placing a lower value on education than do their neighbors. In one sense, of course, the ch: .ge is a truism. In any meaningful sense, however, the idea that cities care less about education is entirely unsupported by the evidence at hand. This statement can be made only by those who fail to view education in the context of the other governmental services which make claims on urban tax dollars. Although problems of tax exporting make precision difficult, central city residents appear to pay at least 25 percent more total local taxes per capita than do residents of other parts of metropolitan areas. And their total tax efforts as measured by taxes as a percent of income is better than 40 percent higher (Table 8) than in surrounding areas. Given a tax burden of this comparative weight, the charge

TABLE 6.—PER CAPITA TOTAL, EDUCATION, AND NONEDUCATION
EXPENDITURES OF CENTRAL CITIES AND SUBURBS: 37 LARGEST
STANDARO METROPOLITAN STATISTICAL AREAS, 1966-67

Area	Total		Education		Noneducation	
	Central City	Suburbs	Central City	Suburbs	Central City	Suburbs
NORTHEAST	$408	$317	$126	$160	$282	$145
Washington, D.C.	564	316	148	179	416	137
Baltimore, Md.	375	286	124	168	251	118
Boston, Mass.	482	321	92	137	390	184
Newark, N.J.	540	390	169	144	371	165
Paterson-Clifton-						
Passaic, N.J.	270	273	97	151	173	122
Buffalo, N.Y.	392	372	128	207	264	165
New York, N.Y.	518	520	146	260	372	260
Rochester, N.Y.	499	403	158	265	341	138
Philadelphia, Pa.	293	255	126	139	167	116
Pittsburgh, Pa.	319	232	104	137	215	95
Providence, R.I.	241	201	94	109	147	92
MIDWEST	349	286	137	159	211	126
Chicago, Ill.	339	234	103	155	236	79
Indianapolis, Ind.	312	268	139	173	173	95
Detroit, Mich.	362	252	130	209	232	143
Minneapolis-St. Paul,						
Minn.	369	424	113	231	256	193
Kansas City, Mo.	303	238	137	127	166	111
St. Louis, Mo.	295	266	133	146	162	120
Cincinnati, Ohio	460	200	201	107	259	93
Cleveland, Ohio	328	282	132	144	196	138
Columbus, Ohio	299	267	111	162	188	105
Dayton, Ohio	353	228	161	132	192	96
Milwaukee, Wis.	416	383	151	165	265	218
SOUTH	271	271	113	155	158	116
Miami, Fla.	346	281	136	136	210	145
Tempa-St. Petersburg,						
Fla.	305	216	113	113	192	103
Atlanta, Ga.	316	279	134	154	182	125
Louisville, Ky.	284	250	126	161	158	89
New Orleans, La.	233	318	93	143	140	175
Dallas, Texas	219	290	91	177	128	113
Houston, Texas	260	326	113	209	147	117
San Antonio, Texas	204	208	101	145	103	63
WEST	406	368	149	199	230	138
Los Angeles-Long Beach,						
Calif.	454	376	164	184	290	192
San Bernardino-Riverside-						
Ontario, Calif.	471	435	202	219	269	216
San Diego, Calif.	383	391	135	209	248	182
San Francisco-Oakland,						
Calif.	486	463	131	216	355	247
Denver, Colo.	342	278	131	164	211	114
Portland, Oreg.	378	256	150	172	228	84
Seattle, Wash.	326	376	127	226	199	150
UNWEIGHTED AVERAGE ...	$363	$308	$136	$170	$230	$138

Source:
    Advisory Commission on Intergovernmental Relations. Metropolitan Disparities—A
Second Reading. Bulletin No. 70-1. Washington, D.C.: the Commission, January, 1970.
Table VIII.

TABLE 7.—PER CAPITA TOTAL, EDUCATION, AND NONEDUCATION TAXES
IN CENTRAL CITIES AND SUBURBS: 37 LARGEST STANDARD
METROPOLITAN STATISTICAL AREAS, 1966-67

Area	Total		Education		Noneducation	
	Central City	Suburbs	Central City	Suburbs	Central City	Suburbs
NORTHEAST	$223	$174	$ 61	$105	$159	$ 79
Washington, D.C.	340	147	NA	NA	NA	NA
Baltimore, Md.	193	127	NA	NA	NA	NA
Boston, Mass.	232	162	55	108	177	54
Newark, N.J.	259	224	57[a]	128[a]	202	95
Paterson-Clifton-						
Passaic, N.J.	180	214	74	135	106	79
Buffalo, N.Y.	221	172	40	55	181	118
New York, N.Y.	305	255	90	139	215	115
Rochester, N.Y.	213	176	68	116	145	60
Philadelphia, Pa.	176	139	51	85	125	54
Pittsburgh, Pa.	176	126	52	71	124	55
Providence, R.I.	157	169	NA	NA	NA	NA
MIDWEST	187	145	75	89	113	56
Chicago, Ill.	189	169	65	104	124	64
Indianapolis, Ind.	180	141	78	98	102	42
Detroit, Mich.	170	160	50	95	119	64
Minneapolis-St. Paul,						
Minn.	190	175	63	107	128	68
Kansas City, Mo.	206	113	86	66	120	47
St. Louis, Mo.	203	137	71	87	132	50
Cincinnati, Ohio	193	110	73	69	114	41
Cleveland, Ohio	181	172	81	112	100	59
Columbus, Ohio	129	146	67	108	62	39
Dayton, Ohio	217	113	107	78	111	35
Milwaukee, Wis.	203	163	73	55	130	107
SOUTH	135	104	45	52	90	52
Miami, Fla.	197	152	62	62	135	90
Tampa-St. Petersburg,						
Fla.	142	106	44	44	98	62
Atlanta, Ga.	159	105	56	55	103	51
Louisville, Ky.	135	110	39	76	96	34
New Orleans, La.	109	60	39	10	70	50
Dallas, Texas	142	108	51	60	91	48
Houston, Texas	122	154	41	99	81	55
San Antonio, Texas	71	34	28	11	43	23
WEST	230	173	95	91	135	83
Los Angeles-Long Beach,						
Calif.	250	225	100	100	150	125
San Bernardino-Riverside-						
Ontario, Calif.	234	202	115	99	119	103
San Diego, Calif.	169	177	73	87	96	91
San Francisco-Oakland,						
Calif.	322	222	85	127	237	95
Denver, Colo.	220	154	114	89	107	65
Portland, Oreg.	208	131	91	79	118	52
Seattle, Wash.	205	100	85	53	119	47
WEIGHTED AVERAGE						
FOR 37 SMSA'S	219	170				
WEIGHTED AVERAGE						
FOR 34 SMSA'S	217	172	73	96	144	76
UNWEIGHTED AVERAGES ..	195	150[b]	69[b]	84	126	66

Sources:
U.S. Department of Commerce, Bureau of the Census. 1967 Census of Governments,
Volume 4, No. 5, Compendium of Government Finances. Washington, D.C.: Government
Printing Office, 1969. 623 p.

[a] Educational taxes are for 1967-1968.

[b] For 37 SMSA's.

[c] For 34 SMSA's.

TABLE 8.—TAXES AS PERCENT OF PERSONAL INCOME IN CENTRAL
CITIES AND SUBURBS: 37 LARGEST METROPOLITAN
STATISTICAL AREAS, 1966-67

Area	Central City	Suburbs
NORTHEAST	7.2%	4.8%
Washington, D.C.	9.1	4.4
Baltimore, Md.	7.2	3.5
Boston, Mass.	8.4	4.0
Newark, N.J.	8.8	5.5
Paterson-Clifton-Passaic, N.J.	6.4	6.2
Buffalo, N.Y.	7.7	5.2
New York, N.Y.	8.0	5.6
Rochester, N.Y.	6.4	4.8
Philadelphia, Pa.	6.2	4.0
Pittsburgh, Pa.	5.8	3.9
Providence, R.I.	5.4	5.6
MIDWEST	5.9	3.9
Chicago, Ill.	5.2	3.9
Indianapolis, Ind.	5.3	3.9
Detroit, Mich.	4.9	4.2
Minneapolis-St. Paul, Minn.	5.1	4.8
Kansas City, Mo.	6.3	3.4
St. Louis, Mo.	7.0	3.8
Cincinnati, Ohio	6.3	3.5
Cleveland, Ohio	6.4	4.2
Columbus, Ohio	4.8	3.9
Dayton, Ohio	6.8	3.2
Milwaukee, Wis.	6.4	3.9
SOUTH	4.7	3.3
Miami, Fla.	6.7	4.6
Tampa-St. Petersburg, Fla.	5.3	4.2
Atlanta, Ga.	5.1	2.9
Louisville, Ky.	4.6	3.2
New Orleans, La.	3.7	2.1
Dallas, Texas	4.5	3.3
Houston, Texas	4.0	5.3
San Antonio, Texas	3.3	1.0
WEST	6.1	5.5
Los Angeles-Long Beach, Calif	6.3	6.3
San Bernardino-Riverside-Ontario, Calif.	8.2	8.0
San Diego, Calif.	5.2	6.1
San Francisco-Oakland, Calif.	7.1	5.7
Denver, Colo.	6.5	5.0
Portland, Oreg.	5.9	4.2
Seattle, Wash.	3.7	3.5
TOTAL	6.1%	4.3%

Source:
Advisory Commission on Intergovernmenta! Relations. Metropolitan Disparities—A
Second Reading. Bulletin No. 70-1. Washington, D.C.: the Commission, January 1970.

that city residents get what they deserve in lower educational support seems
entirely unfounded. The impact of vastly higher expenditures for non-
educational services must be considered in any comparison of city and
suburban effort at educational support.

At this point it may be useful to summarize the discussion thus far. We
have shown that large metropolitan areas are undergoing a relative decentrali-
zation that is leaving core cities—in comparison with outside central city
areas—poorer, blacker, less thriving in economic activity, and with a
deteriorating tax base. In addition, we have noted that urban areas devote a
much larger proportion of their expenditures to noneducational functions,
and while their expenditure level and tax effort are higher than suburban
areas, their expenditures for education are lower.

Higher Urban Education Costs

An additional consideration that lends particular poignancy to the plight of urban finance remains now to be discussed: dollar for dollar, central cities get less education for their expenditures than do other parts of metropolitan areas. Or to put it another way, urban education generally costs more per unit than does education elsewhere. The reasons for this phenomenon are twofold. First, many items in the school budget cost more in the city; second, the socioeconomic character of the urban school population imposes additional expenses.

Among the major educational budget items that are disproportionately higher for cities is the expense for instructional salaries. As Benson pointed out in a study for the U. S. Civil Rights Commission, "City costs are characterized by a general expenditure-raising phenomenon, namely, the age of their teachers. Central city school populations are not growing as rapidly as urban ones. Also, for institutional reasons, cities tend to make promotions internally. On both counts, central cities tend to have school systems that are staffed primarily by teachers of substantial seniority. Again for institutional reasons, teachers are paid largely on the basis of seniority. It follows that central cities must pay higher salaries for teachers even though their salary schedules are not as attractive as those to be found in the suburbs."[7]

In addition, wages and salaries for maintenance, secretarial, and security services are also more costly in large cities, where Bureau of Labor Statistics indexes consistently report higher standards of living. More active unionization and higher incidences of vandalism also play a role in pushing costs upward.

Land for school buildings also is more costly in cities. While comparisons are complicated by the more sprawling campus-style architecture of non-urban schools, the extraordinarily high cost associated with assembling plots for city schools appears to outweigh land costs outside the city. Murnaghan and Mandel reported that in Baltimore it was not uncommon to spend $300,000 an acre for elementary school sites.[8] An intensive study of education in Michigan found that in 1967 Detroit paid an average price per acre of $100,000 in contrast with approximately $6,000 per acre in surrounding school districts.[9]

But the major factor accounting for the inherently higher costs of education in the cities is the makeup of the school population. Higher proportions of the culturally disadvantaged, of the poor, of the handicapped, and of immigrants are in central cities. The special educational needs of these groups require far greater educational resources to enable them to achieve normal grade level performance. "Programs for the culturally disadvantaged, programs for non-English speaking adults and children, programs for children to whom standard English is virtually a foreign language, adult education in general, summer school, programs for the physically and emotionally handicapped (where costs per pupil are greater than normal child costs by a factor of four or five to one) and vocational education (Characterized by average costs of 1.35 times those of academic secondary schools)—these are all prominent aspects of urban education because of the ethnic and socioeconomic make-up of a city."[10]

The percentage of the Negro pupil population is one useful index to the need for more educational resources. Negro pupils tend to come from homes that suffer from generations of societal neglect resulting in lower average years of schooling, which frequently was acquired in inferior segregated schools. A host of recent studies have suggested the importance of parental educational background to pupil achievement.[11]

The high proportion of pupils from Negro families who are generally unable to provide substitutes and supplements that aid the formal educational process is far higher than the proportion in the general urban population. For example, in 1965 the Negro percentage of the general population of Newark,

TABLE 9.—PERCENT OF POPULATION IN LARGE
CENTRAL CITIES THAT IS NEGRO

Area	1900	1950	1960	1965 (Estimate)	Proportion Negro in public elementary schools
EAST					
Baltimore, Md.	16%	24%	35%	38%	64.3%
Boston, Mass.	2	5	9	13	23.9
Newark, N.J.	3	17	34	47	69.1
Buffalo, N.Y.	1	6	13	17	34.6
New York, N.Y.	3	10	14	18	30.1
Rochester, N.Y.	NA	NA	NA	NA	NA
Philadelphia, Pa.-N.J.	5	18	26	31	58.6
Pittsburgh, Pa.	5	12	17	20	39.4
MIDWEST					
Chicago, Ill.	2	14	23	28	52.8
Indianapolis, Ind.	9	15	21	23	30.8
Detroit, Mich.	1	16	29	34	55.3
Minneapolis, Minn.	1	1	2	4	7.2
St. Paul, Minn.	NA	NA	NA	NA	NA
Kansas City, Mo.-Kans.	11	12	18	22	42.4
St. Louis, Mo.-Ill.	6	18	29	36	63.3
Omaha, Nebr.-Iowa	NA	NA	NA	NA	NA
Cincinnati, Ohio-Ky.-Ind.	4	16	22	24	40.3
Cleveland, Ohio	2	16	29	34	53.9
Columbus, Ohio	7	12	16	18	26.8
Toledo, Ohio	NA	NA	NA	NA	NA
Milwaukee, Wis.	0	3	8	11	26.5
SOUTH					
Birmingham, Ala.	NA	NA	NA	NA	NA
Atlanta, Ga.	40	37	38	44	54.7
Louisville, Ky.-Ind.	NA	NA	NA	NA	NA
New Orleans, La.	27	32	37	41	15.5
Oklahoma City, Okla.	NA	NA	NA	NA	NA
Memphis, Tenn.-Ark.	19	37	37	40	53.2
Dallas, Tex.	21	13	19	21	27.5
Houston, Tex.	33	21	23	23	33.9
Norfolk, Va.	NA	NA	NA	NA	NA
WEST					
Long Beach, Calif.	NA	NA	NA	NA	NA
Los Angeles, Calif.	2	9	14	17	NA
San Diego, Calif.	NA	5	6	7	11.6
San Francisco, Calif.	1	6	10	12	28.8
Denver, Colo.	3	4	6	9	14.0
Portland, Oreg.-Wash.	NA	NA	NA	NA	NA
Seattle, Wash.	1	3	5	7	10.5

Source:
Sacks, Seymour. Educational Finance in Large Cities. Syracuse, N.Y.: Syracuse University Press, 1970. In process.

N. J. was estimated at 47 percent, yet the Negro percentage of enrollment in the public elementary schools was 69.1 percent. In Buffalo the comparable figures were 17 percent in the general population and 34.6 percent in the public elementary schools. Similar patterns may be found in all parts of the country. The implications for the real cost of education are immense (Table 9).

In summary, lower city educational expenditures take on an added significance when they are placed in the context of the higher costs inherent in urban education. It is apparent that city school systems would have to spend considerably more than their surrounding areas to provide equal educational results. In fact, as this paper has already noted, cities are actually able to spend less.

Intergovernmental Aid

Urban education systems, of course, do not face these costs alone. Intergovernmental regulation and aid has a long tradition and a central role in educational finance. In the current fiscal year (1969-70), for example, 52.5 percent of the nation's revenues for elementary and secondary education is raised locally. State governments foot 40.8 percent of the bill and the federal government provides the remaining 6.7 percent. We turn now to an analysis of the impact of state and federal financing for schools in large metropolitan areas of the country.

State regulations as well as state aid have a decided impact that frequently leaves cities at a competitive disadvantage vis-a-vis their environs. For example, Sacks has noted that in many states it is only the large school districts that must bear the costs of retirement systems, and in some cases, even where smaller districts are responsible for retirement contributions, a heavier assignment is charged to the large city school district or its overlying government. Sacks has also concluded that tax limits frequently are *"operative* only insofar as they affect the large cities."[12]

Support for this latter view may be found in a report prepared for the 1967 New York State Constitutional Convention. It noted that of the states' 62 cities, 10 were operating at better than 90 percent of their statutory tax limits. Included in that group were all six of the cities with over 125,000 population, and five of them were at 99 percent of their ceilings.[13]

In the area of intergovernmental aid (both state and federal) for education, suburbs received a decided edge in per-capita terms in the 37 largest SMSA's. Suburbs received $64 per capita in 1967; central cities, $48 per capita (Table 10). Mirroring the division of taxes and of expenditures discussed earlier, suburban aid was primarily devoted to education, (64 percent to education; 36 percent to noneducational services), central city aid mostly to noneducational services (38 percent to education; 62 percent to noneducational services).

While cities did somewhat better than their suburbs in noneducational aid, the amount has not been sufficient to compensate the cities for the added costs of urban government. In 1967, while the core cities of the 37 largest SMSA's received $105 per capita in total aid and their suburbs received $99 per capita, cities expended $50 per capita more for the total of

TABLE 10.—PER CAPITA EDUCATION AND NONEDUCATION
INTERGOVERNMENTAL AID TO CENTRAL CITY AND
SUBURBS: 37 LARGEST METROPOLITAN
STATISTICAL AREAS, 1966-67

Area	Total		Education		Noneducation	
	Central City	Suburbs	Central City	Suburbs	Central City	Suburbs
NORTHEAST	$133	$ 98	$ 46	$ 64	$ 86	$ 34
Washington, D.C.	182	81	21	56	161	25
Baltimore, Md.	174	101	40	65	134	36
Boston, Mass.	179	74	44	32	135	42
Newark, N.J.	144	53	68a	27	76	26
Paterson-Clifton-						
Passaic, N.J.	53	37	29	26	24	11
Buffalo, N.Y.	137	165	72	112	65	53
New York, N.Y.	220	163	66	119	154	44
Rochester, N.Y.	145	195	71	133	74	62
Philadelphia, Pa.	70	61	41	46	29	15
Pittsburgh, Pa.	87	69	35	54	52	15
Providence, R.I.b	67	76	24	35	43	41
MIDWEST	88	89	35	54	54	35
Chicago, Ill.	88	55	37	34	51	21
Indianapolis, Ind.	76	82	47	61	29	21
Detroit, Mich.	126	115	63	83	63	32
Minneapolis-St. Paul,						
Minn.	100	127	32	87	68	40
Kansas City, Mo.	64	73	48	49	16	24
St. Louis, Mo.	57	57	38	46	19	11
Cincinnati, Ohio	108	60	26	40	82	20
Cleveland, Ohio	85	59	22	24	63	35
Columbus, Ohio	61	34	23	53	38	31
Dayton, Ohio	73	72	27	46	46	26
Milwaukee, Wis.	134	190	18	67	116	123
SOUTH	65	87	47	74	18	13
Miami, Fla.	74	70	64	64	10	6
Tampa-St. Petersburg,						
Fla.	68	60	56	56	12	4
Atlanta, Ga.	68	110	39	95	29	15
Louisville, Ky.	72	72	44	54	28	18
New Orleans, La.	71	115	41	65	30	50
Dallas, Texas	34	75	30	72	4	3
Houston, Texas	45	85	40	83	5	2
San Antonio, Texas	90	107	62	104	28	3
WEST	136	133	59	78	76	55
Los Angeles-Long Beach,						
Calif.	129	147	47	75	82	72
San Bernardino-Riverside-						
Ontario, Calif.	196	174	103	90	93	84
San Diego, Calif.	140	176	65	91	75	85
San Francisco-Oakland,						
Calif.	187	147	42	73	145	74
Denver, Colo.	94	78	31	53	63	25
Portland, Oreg.	76	86	46	63	30	23
Seattle, Wash.	127	124	80	103	47	21
WEIGHTED AVERAGE						
FOR 37 SMSA'S	128	100	48	64	80	36
UNWEIGHTED	105	99	45	66	60	33

Source:
    Advisory Commission on Intergovernmental Relations, Metropolitan Disparities—A
Second Reading. Bulletin No. 70-1. Washington, D.C.: the Commission, January 1970.

    aEducational aid figures are for 1967-68.

    bFederal aid components are an average of 1965-66 and 1967-68 figures.

130

TABLE 11.—PER CAPITA EXPENDITURES, AIDS, AND NONAIDED
EXPENDITURES IN CENTRAL CITIES AND SUBURBS:
37 LARGEST STANDARD STATISTICAL AREAS,
1957, 1964, AND 1967

Fiscal item	Central city	Suburbs	Central city suburbs ratio
1957			
Expenditures	$198	$156	1.27
Aid	40	40	1.00
Nonaided Expenditures	143	116	1.28
1964			
Expenditures	304	265	1.15
Aid	78	78	1.00
Nonaided Expenditures	226	187	1.21
1967			
Expenditures	363	308	1.18
Aid	105	99	1.07
Nonaided Expenditures	258	209	1.23

Source:
 Advisory Commission on Intergovernmental Relations, Metropolitan Disparities—A
Second Reading. Bulletin No. 70-1. Washington, D.C.: the Commission. January 1970.

governmental services than did their surrounding areas (Table 11). In other
words, while cities appeared to be receiving more aid (educational and
noneducational) than their neighbors, the amount of aid they received was
not sufficient to offset their greater costs. Indeed, the excess of expenditures
over aid is approximately 25 percent greater in the core cities than it is in
their suburbs. Thus, cities suffer from both a substantial disparity in the
educational aid per capita they receive as well as in the *total* (education and
noneducational) aid they receive relative to their total expenditures.

When we examine the impact of state aid for education, we find that
aid systems continue to bear the marks of their origins. Education aid
formulas were designed in the first decades of the century to compensate for
disparities between the rich cities and the poorer outlying areas. Relative fiscal
positions are now reversed, but the formulas continue to give lesser
proportions of aid to cities than to suburbs as many studies have shown. In
1962, for example, the last year for which data on state aid to local schools in
the 37 largest SMSA's exist, only three central cities had higher state aid on a
per-capita basis than did their neighbors (Table 12). As aid has risen in recent
years, this pattern has tended to remain fairly constant, and reapportionment
of state legislatures has often operated to reinforce the rural and suburban aid
advantage.

The fiscal impact of the structure of federal aid to education is less
clear. ESEA I, because of its poverty formula and utilization of AFDC
eligibility, funnels more funds into central city than suburban school systems.
A number of other major programs, however, seem to aid outside-central-city
areas disproportionately. A U. S. Office of Education tabulation found that
in 1967 the 50 largest cities of the country, containing 21.3 percent of total
school enrollments in their combined 28 states, received a lower proportion
of their states' Vocational Education aid (15.9 percent), NDEA Title III aid

131

TABLE 12.—EDUCATION AID PER CAPITA IN CENTRAL CITIES AND SUBURBS:
37 SELECTED LARGE METROPOLITAN AREAS, 1962

Area	Central City	Suburbs	Total education aid as a percent of total education expenditures in Central City
New York, N.Y.	$30.19	$ 66.17	38.7%
Chicago, Ill.	15.31	20.45	23.2
Los Angeles, Calif.	36.19	102.30	35.8
Philadelphia, Pa.	17.45	24.17	31.9
Detroit, Mich.	23.62	39.49	25.2
Baltimore, Md.	19.83	31.61	24.6
Houston, Texas	31.33	51.98	49.1
Cleveland, Ohio	6.76	12.76	10.4
St. Louis, Mo.	18.20	24.83	32.9
Milwaukee, Wis.	13.43	11.91	20.6
San Francisco, Calif.	23.72	98.34	34.3
Boston, Mass.	6.54	7.78	13.0
Dallas, Texas	27.13	38.74	36.5
New Orleans, La.	29.06	39.01	69.6
Pittsburgh, Pa.	11.43	34.53	22.3
San Diego, Calif.	37.43	63.87	35.6
Seattle, Wash.	42.46	80.03	47.5
Buffalo, N.Y.	25.45	59.80	42.9
Cincinnati, Ohio	7.73	32.34	12.4
Memphis, Tenn.	22.20	32.34	45.7
Denver, Colo.	14.06	34.70	17.3
Atlanta, Ga.	21.25	39.02	37.0
Minneapolis, Minn.	19.51	93.73	31.7
Indianapolis, Ind.	18.53	27.89	26.5
Kansas City, Mo.	20.69	30.21	27.6
Columbus, Ohio	9.28	28.31	15.1
Newark, N.J.	15.48	12.04	16.5
Louisville, Ky.	17.53	28.02	40.9
Portland, Oreg.	21.05	53.52	26.6
Long Beach, Calif.	34.91	90.06	40.6
Birmingham, Ala.	31.70	37.85	78.3
Oklahoma City, Okla.	23.19	13.39	34.5
Rochester, N.Y.	24.56	67.05	30.9
Toledo, Ohio	8.54	47.51	10.5
St. Paul, Minn.	17.78	102.03	30.5
Norfolk, Va.	17.89	28.28	37.3
Omaha, Neb.	5.60	10.46	11.3

Source:
President's Task Force on Urban Education. "Report". Congressional Record 116:
E30; January 20, 1970.

(16.2 percent), ESEA II aid (18.1 percent), and ESEA Title III aid (20.5 percent). Only in ESEA Title I, where the same cities received 29.9 percent of their states' funds with 26.4 percent of the poverty eligibles, did the cities receive an amount proportionate to the number of pupils they have.[14] Existing federal aid programs, then, are clearly unable to compensate for the disadvantageous financial position of urban education systems. Difficulties in the timing of funds, uncertainties about appropriation levels, and the relatively marginal level of support (currently under 6.7 percent of elementary and secondary revenues) make federal aid a weak fiscal reed for drowning central city schoolmen.

Summary

Now to summarize. In examining the fiscal structure of school support we have suggested that large city school systems are currently in a

132

disproportionately beleaguered condition. Metropolitan decentralization has left them with a less affluent population and a resource base that is failing to grow at a rate sufficient to meet increasing needs. Because large urban areas have disproportionately greater needs for a wide variety of public services, a much lower proportion of their expenditures can be devoted to education than is true in suburban areas. The result, of course, is lower educational expenditures per capita and per pupil in cities than in their environs. Unfortunately these problems are compounded by the inherently more costly nature of urban education: costs per unit are higher in big cities and pupil populations include more children in need of expensive supplementary educational techniques. Nor do we find the structure of intergovernmental aid of any substantial help in alleviating the plight of central city education. State aid systems discriminate against the most urban areas, and federal aid does not work, except through ESEA Title 1, to offer cities compensatory financing.

In one sense this paper has described the impact of funding on urban schools. But in a more profound sense, we have barely scratched the surface. For the real impact behind the statistics on metropolitan disparities are evidenced in dropout rates, student performance below grade level, difficulties in attracting and holding qualified teachers, and overcrowded classrooms in aged and dilapidated school buildings. By each of those criteria, city school districts are performing more poorly than are districts in their surrounding suburban areas. The costs of these conditions are varied and immense. They are reflected in higher welfare, law enforcement, and job training expenses of the cities, in the flight of the middle class to the suburbs, and in the human tragedy and property destruction related to urban unrest.

To remedy these problems will require new kinds of teaching suited to the particular problems of urban youngsters. Small classes, special programs, and retrained teachers are widely recognized as basic to improved urban education. But though basic, they all cost dearly. Until the patterns of funding described in this paper are radically reformed, there appears to be little hope for significantly raising the quality of education in the large cities of the country.

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FOOTNOTES

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The Impact of Grants-in-Aid on State
and Local Education Expenditures

Stephen M. Barro

ONE YEAR AGO, The Rand Corporation received a grant from the Ford
Foundation to study fiscal impacts of state and federal aid to local
governments, primarily the decision problem faced by the grantor of aid, that
is, the state or federal supplier of funds, in choosing among alternative forms
of support to bring about desired expenditure patterns at the local level. To
strengthen the capability of grantor agencies to make those decisions, we
proposed to develop analytical tools or models that could be used to estimate
the fiscal impacts of alternative aid formulas, thus providing a base of
information for comparing rival proposals.

For concreteness, we focused on one broad category of state-local
spending rather than attempting to study intergovernmental fiscal relations in
general. We selected public elementary and secondary education as the study
area because it is the largest program in terms of both expenditure levels and
the volume of intergovernmental transactions, and because of complementary
Rand work in a variety of education studies. Therefore, this paper reports
essentially on the impact of alternative forms of intergovernmental aid to
education on local school district spending.

Of course, the question of the impact of alternative arrangements for
financing the public schools is a timely one. Changes are taking place, and
there are pressures for change in educational finance across the country, at
both state and federal levels. In California alone, at least eight bills that would
have substantially changed the method of financing education were con-
sidered during the last legislative session. Some of them would have provided
more money to school districts while preserving the existing financial system;
others would have required major changes in both the tax mechanism and the
aid distribution formulas. Also, there have been proposals, though their time
apparently has not come politically, for allocation of federal funds to
general-purpose aid to school districts. Thus, at each level we find an array of
alternatives. If intelligent choices are to be made among them, there is need
for comparative analysis of their fiscal implications. This analysis must deal

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with both the prospective impact of aid plars on levels of public-school spending and their probable effects on the distribution of spending among differently situated school districts.

Nature of the Study

The work we are carrying on at Rand belongs to a growing body of research on the determinants of public spending and the effects of intergovernmental aid. This research deals with fiscal behavior not only of school systems but also of states, municipalities, and county governments. While public education has many special financial problems, there are also important similarities between school districts and other types of local jurisdictions, especially with regard to their response to intergovernmental aid. Therefore, the whole body of research, in addition to those studies that deal specifically with education expenditures, can be drawn on to develop impact models for school districts.

Some of the work on expenditure determinants has been carried on within the education finance community; for example, James's study of determinants of educational spending in large city school systems.[1] But much of the pertinent work has been undertaken by economists working in applied public finance. In recent years, the *National Tax Journal* has been the largest single source of literature in this field.[2] There is also increasing interest in problems of intergovernmental finance, including educational finance, among more theoretically inclined economists, as evidenced by growth in the number of dissertations in the field. This trend is important because it marks a shift from primarily empirical research toward work aimed at developing a stronger theoretical understanding of the fiscal behavior of local governments. While some of that work may seem to take the long way around or even be irrelevant in terms of practical problems, in the long run it may well have the greater benefit. The payoff—if the work is headed in the right direction—should be a rise in the quality of empirical work to a higher plateau of sophistication leading to enhanced ability to develop policy-relevant conclusions.

The project under way at Rand comprises both theoretical and empirical work on the impact of aid. On the theoretical side, we have formulated several economic models of the expenditure behavior of local school districts. The models take into account the effects of state aid on spending and also the effects of other economic and demographic variables that have important effects on spending levels, such as community income and wealth, costs of education, property values and tax rates, and numbers of school children in relation to population. Two distinct theoretical approaches are being pursued, as I shall explain, and there are a number of variations within each approach.

The empirical work centers on development of econometric models that relate expenditures by individual school districts and by states to the same kinds of variables. One part of the work is an interstate analysis of variations in state-wide school spending; another part is an analysis of variations in per-pupil spending levels among districts within individual states (e.g., New York State and California school districts). An important

136

characteristic of the work at both the local and the state levels is that time series (longitudinal) as well as cross-section data are used to estimate the effects of the explanatory variables. This is in contrast to most studies of expenditure determinants, which have been limited to single-year cross-sectional analysis. It is also an important, and in fact necessary, characteristic of the work in light of the objectives of the study for reasons that I will discuss later.

We have attempted to build into the project a close linkage between the theory and the empirical studies. The reason for expending considerable resources on development of the theoretical models is that they have implications that can be empirically tested. So in pursuing several versions of each of two theoretical approaches the emphasis is on identifying differences in implications that make it possible to empirically determine which formulation is preferable. *This focus on theoretical aspects has not been maintained only for academic reasons.* If we were interested in developing a model that would be used mainly to predict future levels of public school spending, or even to "explain" variations in spending levels among jurisdictions, it might not be necessary to give so much attention to development of a detailed theory. However, the objective of being able to estimate consequences of alternatives—being able to answer hypothetical questions about the consequences of changes in the form as well as in the level of aid—is a more demanding one. It requires that a model based on past and current data be usable for prediction beyond the range of those data. This can be done, if at all, only if there is a valid theoretical framework, for reasons that I hope will become clear as I proceed.

The theoretical portion of the work is now largely completed; the empirical work is still under way. Consequently, I shall describe to you what we are doing on the theoretical front and also outline some of the empirical analyses and discuss some interim results. But the complete analysis of school district data will not be available for several months, and not until then will it be possible to report on specific policy implications of the study.

Theories of School District Spending

As I mentioned earlier, two theoretical approaches have been followed during the study. One has been to adapt the economic theory of constrained maximizing behavior. This approach, though originally based mainly on an analogy between government spending and consumer spending behavior, has now been applied to local government expenditure analysis by a number of writers and has been used to provide a framework for analysis of different forms of grants-in-aid.[3] The thrust of our work with these models has been to extend their usefulness as tools for analyzing school district spending by introducing additional variables and relationships and recasting the primarily graphical prior models into a more manipulable mathematical framework. Shortly I will describe one of these formulations. The second approach has been to develop models that more directly and explicitly represent budget-making behavior by local administrative units. These models, which embody "incrementalist" notions of the budgeting process,[4] seem more realistic in some senses than the constrained maximization models, but they

137

are less generalizable and appear to have a more, restricted range of testable implications. Because of time limitations I will be unable to include a detailed description of the second class of models in this discussion.

A Constrained Maximization Model
of School District Expenditure

As a way of conveying the flavor of this theoretical work, I will trace through the analysis underlying one type of model of school district fiscal behavior. This model, which belongs to the constrained maximization category, represents the spending and revenue patterns that would occur if school district behavior conformed to a particular kind of economic rationality. The assumptions used in deriving the model may not appear wholly realistic, but they are similar to equally unrealistic appearing assumptions that underlie the well-substantiated theory of consumer demand.

This particular model is based on the idea that a school district, in deciding on its per-pupil level of expenditures, faces a trade-off between higher program levels, as measured by real per-pupil outlays, and the level of educational taxes that it must impose on the community. Of course, with any given level of taxes the district would like to have as high a level of per-pupil spending as possible, and with a given expenditure level it would like to have the smallest possible tax rate. But the important question is how the district is willing to trade off the two: higher expenditures, which are valued, versus higher tax levels, which have obvious political disutility to the district decision-maker.

District preferences with regard to different combinations of expenditures and taxes may be described by specifying a mathematical function of expenditure and tax levels called the marginal rate of trade-off. For example, a district spending $800 per pupil and imposing a $500 tax per pupil might be willing to spend an additional $10 per pupil if it could do so by imposing no more than an additional $6 per-pupil tax. In that case, we would say that the margin rate of trade-off is $6/$10, or 0.6. If the same district were already spending $1,000 per pupil, it might value additional spending less highly at the margin and might be willing to tax itself only $4 for an additional $10 expenditure, a marginal rate of trade-off of 0.4. In general, we would probably expect the district to behave so that the more tax it was levying, at a given level of per-pupil spending, the less additional tax it would be willing to levy at the margin for an additional unit of expenditure. Similarly, the higher the level of spending with a given tax levy, the less additional tax it would be willing to levy for one additional unit of expenditure. These assumptions about district willingness to trade off increments in spending for increments in taxes at various levels of spending and taxing suffice to define a "preference function" for the district.

A district's preferences with respect to school spending and taxes can be represented graphically if we hold all other variables, such as incomes and prices, constant. In Figure I, the rate at which a district will trade off increments in per-pupil taxes (measured along the vertical axis) for increments in per-pupil expenditures[5] (measured along the horizontal axis) is indicated by the slope of the preference contours. Points along each contour

represent combinations of taxes and expenditures that are equally satisfactory to the district. The curvature of the contours reflects the assumptions that have been stated: The marginal willingness to levy additional taxes to provide additional expenditures declines with either increased expenditures or increased taxes, holding the other quantity constant in each case. Movement toward the lower right or southeast in the diagram represents progress toward preferred positions, i.e., combinations of higher per-pupil expenditure and lower per-pupil taxes.

Figure 2

Tax versus expenditure trade-off model of school district spending
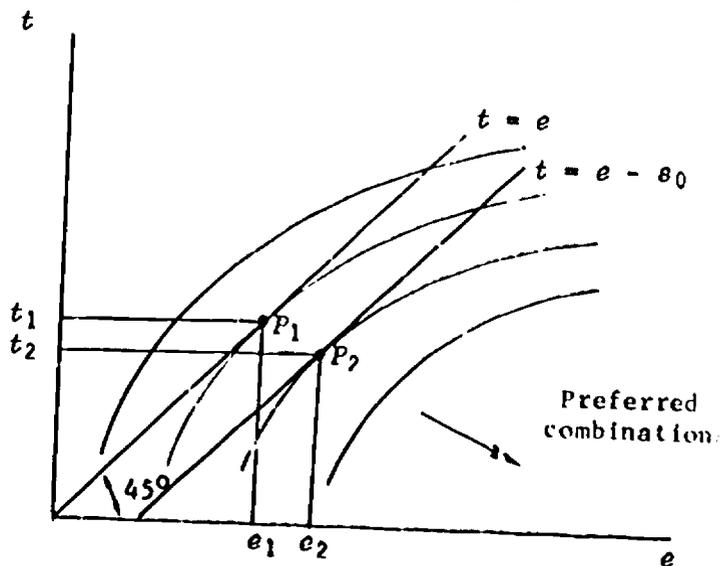
The basic behavioral premise that leads to a model of expenditure determination is that the district will select the best attainable combination of expenditures and taxes, subject to applicable budget constraints. That is, it will select a point along the most southeasterly preference contour it can reach. This is equivalent to the assumption of utility maximization in consumer economics. The next step, then, is to define the constraints to which a school district finds itself subject.

If no borrowing for current expenses is permitted and there is no state aid, the budget constraint is simply $t = e$, i.e., per-pupil expenditure equals per-pupil taxes. This constraint is represented in the diagram by the 45° line through the origin. Points on and above the line are accessible to the district, but only points along the line are relevant since for any point off the line there is one on the line that provides greater expenditures for no greater

141

taxes. The "best" point that is attainable is the point of tangency between the budget constraint line and the highest preference curve that touches that line, i.e., the point P_1.

In general, a district will not have to levy taxes equal to all the funds it expends because some of its revenues will be obtained as aid from state and federal agencies. To a certain extent, the effects of this aid can be studied graphically. If, for example, a flat grant of s_0 dollars of state aid per pupil is provided to the district, the new budget constraint becomes $t = e - s_0$, and the new "best" combination of taxes and expenditures is at point P_2, corresponding to an expenditure level e_2. Note that the level of per-pupil expenditure does not increase by the whole amount of the grant-in-aid, s_0. Only a fraction of that aid is additive; the remainder becomes a substitute for funds that would have been provided locally had aid not been available and results in a reduction of the tax level from t_1 to t_2. An important objective of the empirical analysis based on this model is to determine the proportions in which a dollar of lump-sum state aid translates into increased total outlay and reduced taxes, respectively. Many conflicting estimates of this substitution ratio have appeared in the literature, and it is hoped that careful specification of the model will make it possible to obtain a more reliable estimate.

The diagrammatic analysis can be used to study a number of aspects of district response to state aid. For example, it can be used to demonstrate that matching grants are generally more stimulative of local spending than lump-sum grants. It can also be used to study the effects of "floor" and "ceiling" stipulations, minimum tax rate requirements, and other characteristic features of state school aid formulas. However, the two-dimensional diagrams are too restrictive to permit analysis of many other phenomena of interest, such as effects of differences in income, wealth, and costs of education, proportion of the population in school, composition of the tax base, and equalization features of aid formulas. Therefore, rather than pursue the graphical analysis, which I have introduced mainly for heuristic purposes, I will now outline the mathematical approach to the theory, which can accommodate many more variables and which admits of direct translation into empirically testable econometric models.

Mathematical Formulation of the Model

A mathematical version of the constrained maximization model of school district expenditure requires the same two elements as the graphical version, namely, a description of the district's behavior in trading off expenditures versus taxes and a budget constraint relationship. With these two elements at hand, it is possible to derive a number of quantitative implications of maximizing behavior.

The analytical counterpart of the expenditure versus tax trade-off curves shown in Figure 1 is an explicit mathematical expression of the dependence of the trade-off ratio on each of a number of school district variables. The nature of the supposed variation of the ratio with levels of the expenditure and tax variables themselves has already been described. In addition, the mathematical framework permits us to introduce as hypotheses

140

for testing a number of propositions about effects of other variables on the trade-off ratio. Some of these hypotheses are as follows:

1. A district's willingness to raise taxes in order to raise expenditures, given the initial levels of those two variables, increases with community income or wealth; i.e., of two communities starting at the same point, the wealthier would probably be willing to accept a great per-capita tax increase for a unit increment in real educational outlay per pupil.

2. The higher the ratio of school enrollment to total population in the community, other things being equal, the more willing would the district be to increase per-capita taxes to obtain a unit increase in per-pupil educational outlay. An argument in support of this hypothesis is that the greater the enrollment/population ratio, the greater is the proportion of the households or voters in the community with children in school, hence with a direct interest in the level of school programs.

3. The trade-off ratio depends on the proportion of the local tax burden to be borne by homeowners as opposed to businesses (the greater that proportion, presumably, the less the willingness of the community to tax itself, and on the levels of other property taxes imposed on the community (the higher the level of other taxes, the less willingness to raise taxes for education). Note that the last proposition allows for treatment of the frequently cited "municipal overburden" problem as an integral part of the analysis.

To express all of these hypotheses, we define a marginal rate of trade-off function:

$$m(e, t_c : y \cdot t_y, a, h, t_g)$$

where m is the marginal rate of trade-off between school taxes and expenditures, as defined earlier, and

    e = real educational expenditure per pupil,
    t_c = real local school taxes (property taxes) levied per capita,
    y = real personal income per capita,
    t_y = real per-capita income taxes (federal and state)*
    A = average daily attendance,
    N = population of the school district,
    a = A/N,
    h = proportion of the local school tax borne by homeowners,
    t_g = real nonschool property taxes per capita.

Our hypotheses about the signs of the effects of the variables entering into the trade-off function lead to the following stipulations about its partial derivatives:

$$\frac{\partial m}{\partial e} < 0 \cdot \frac{\partial m}{\partial t_e} < 0 \cdot \frac{\partial m}{\partial (y - t_y)} > 0 \cdot \frac{\partial m}{\partial a} > 0 \cdot \frac{\partial m}{\partial h} < 0 \cdot \frac{\partial m}{\partial t_g} < 0$$

Two special features to be noted about this formulation are (a) that all of the dollar variables entering into the model are defined in "real" terms, i.e., in constant dollars, and (b) that of all the variables in the expression for m, only

the two to the left of the semicolon can be determined by district decision-makers; the others are exogenous school district or community characteristics.

The budget constraint relationship is nothing more than a statement that school district revenues must equal school district expenditures. However, it must allow for the availability of state or federal aid and for representation of the actual formulas by which that aid is provided. Moreover, since the key variables in the model have been defined in real terms, it is also necessary to take into account that the unit cost, or price, of educational resources as well as the general price level may vary over time and among districts. Making allowance for these features, the budget constraint equation may be written

$$P_e A e = p_x N t + p_e A s$$

that is, total expenditure = total local taxes + total state aid. The new variables are p_e, the price per unit of educational resources, p_x, the general price level, and s, the real value of per-pupil state aid to the local school district.[7] As indicated by the association of p_e with s, the real value of state aid is measured in terms of its *educational* purchasing power. For convenience, we can solve this equation for t and rewrite it as

$$t = \frac{P_e A}{p_x N} (e-s) = pa(e-s)$$

where $a = A/N$, and p is defined as p_e/p_x, the *relative price* of education.

State Aid Formulas

Having defined the budget constraint, we are also in a position to introduce the state aid formula into the model. In general, the amount of state aid, s, provided per pupil will depend on the property value per pupil in the district, as is the case under most equalization plans, and/or the level of per-pupil expenditures as is the case whenever an aid formula contains matching provisions. Therefore, a general functional expression for a state aid formula is

$$s = s(v, e)$$

where v is the assessed property value per pupil in the district. However, there is no need to leave matters at such a high level of abstraction since in virtually every state the aid formula consists of one or more of the following three components:

(1) A flat per-pupil grant
(2) An equalized per-pupil grant, in which the amount of the grant is inversely related to assessed property value per pupil (foundation program)
(3) A matching grant, in which the *local share* is inversely related to assessed property value per pupil (variable percentage matching).

In California, for example, all three of these are present in the forms of basic aid, equalization aid, and supplementary aid, respectively. Accordingly, we can assume that state aid, from the point of view of an individual district, will have the form:

$$s = f + (1 \cdot c)e$$

where f is the total amount provided either as a flat grant or an equalized per-pupil grant, and c is the local share of expenditures required by a matching formula. But when we compare across districts both f and c are seen to depend on the value of v, the property value per pupil in a district. That is, $f = f(v)$ and $c = c(v)$, with $\frac{2f}{2v} < 0$ if there is an equalized foundation program and $\frac{2c}{2v} > 0$ if there is variable percentage matching.

The aid formula may be incorporated into the budget constraint relationship that was specified earlier. The result of that combination is a transformed budget constraint:

$$t_e = pa[e - f - (1 - c)e]$$

$$= pa[ce - f].$$

Note that the "matching" part of the aid formula and the nonmatching foundation and flat grant parts enter differently into the equation. The significance of this will emerge shortly.

Maximization

In the graphical exposition of the theory, maximizing behavior was shown to imply movement toward a point of tangency between a preference contour and the budget constraint line. The mathematical counterpart of that tangency condition is the requirement that the marginal rate of trade-off between taxes and expenditures be equal to the slope of the budget constraint. From the equation above for t, that slope is

$$\frac{dt_e}{de} = pac$$

Therefore, the maximization condition is

$$m(e, t_e : y \cdot t_y, a, h, t_g) = pac.$$

If there are no matching provisions in the aid formula (which is to say, if the aid consists of flat grants or equalized foundation grants to districts), $c(v) = 1$ and the maximization condition simplifies to

$$m(e, t_e : y \cdot t_y, a, h, t_g) = pa$$

From whichever of these equations that is applicable, together with the budget constraint equation, we can proceed to derive implications about the responsiveness of real per-pupil expenditure, e, to changes in each of the exogenous variables that appear in the model.

I will not attempt to reproduce here the mathematics by which the response of per-pupil spending to each of the other variables is derived. The

process consists of differentiating both the marginal rate of trade-off equation and the budget constraint equation with respect to each variable and then solving the pair of equations for the change in e per unit change in that variable. The result is a set of implications, showing the expected sign of the eff, ct on spending of a change in each variable and, in some cases, the relative magnitude of the effect. These implications lead directly to formulation of regression equations that can be applied to the empirical data.

Implications of the Theory

The model set forth above proves to be consistent with the following empirically testable, linear demand equation:

$$e = b_0 + b_1(y \cdot t_y) + b_2af + b_3a + b_4h + b_5t_g + b_6pac.$$
$$+ \quad\quad + \quad\quad + \quad\quad - \quad\quad - \quad\quad -$$

The plus or minus sign under each coefficient indicated whether a positive or negative effect of that variable on real per-pupil expenditure is expected. Thus, the model implies that real educational outlay should increase with increases in disposable personal income and state aid and should decrease with increases in the proportion of local taxes borne by homeowners, noneducational property taxes. the relative price of education, and the local share of matching grants.

Some of these implications could easily be arrived at intuitively or by reasoning in terms of the fiscal capacity of school districts. For instance, there is nothing surprising about finding educational spending positively associated with disposable per-capita income and state aid and negatively associated with noneducational property taxes, all of which affect the ability to pay of the local district. On the other hand, the model has certain implications not intuitively obvious and not readily derivable by reasoning about the willingness or ability of a local community to support education, but that do significantly affect empirical analysis. Some of these implications deserve special attention, as they are not frequently discussed in the educational finance literature.

The Importance of Relative Price Changes

One such implication is that variations in the relative price of education need to be taken into account in developing empirical equations to explain or predict expenditure levels. There are two sources of such variation. One is the rise in educational resource costs over time, which can be measured by increases in salaries of instructional personnel and in prices of other resources purchased by school districts. The other is differences that exist at any given time among states or localities on the supply side of the market for teachers and other educational resources. In principle, the second kind of variation would be measured by differences in salaries paid (in the case of teachers) in different areas to obtain teachers of the same quality. Hwever, the problem of taking quality into account when comparing teacher salaries is a difficult and thus far an unsolved one from a conceptual point of view, and also a difficult one practically because of the scarcity of relevant data. Conse-

146

quently, the only real opportunity at present for determining the effect of relative price changes on spending is in analyzing the effects of changes in relative education costs over time. For this reason, inclusion of both cross-section and longitudinal data in the empirical analysis, which was referred to very briefly earlier in the discussion, is essential in te. ting the implications of the theory.

A few numbers may help to convey a feeling of the importance of including the price term in an expenditure model. In the United States during the 10-year period 1958-1968, real disposable personal income rose 33 percent. The cost of education, based on the trend in instructional salaries, increased roughly 30 percent, over and above the rise in the general price level. During the same period, real per-pupil outlay for current expenses increased 31 percent, or 2.8 percent per year. Based on some preliminary regression equations developed for state education expenditures, it appears that the price elasticity of real per-pupil expenditures, that is, the percentage change in real per-pupil outlay in response to a 1 percent increase in price is about -0.4, meaning that the price increase over the period would have accounted for a 12 percent decline in real spending per pupil had everything else remained unchanged. Looking at it differently, we see that of the increase in real per-pupil outlays that would have resulted from gains in income and all other variables, almost 50 percent was offset by school district responses to the change in relative prices. Therefore, it is apparent that the impact of price changes is not negligible and that in order to get an unbiased estimate of the impact of changes in state aid and other variables on levels of expenditure it is necessary to take account of price changes in the expenditure model.

The Effects of Changes in State Aid

The theory yields several implications about the impact of state aid on per-pupil expenditures. Of these, the most important is that the effect of a given increment in aid funds will be quite different depending on whether the aid is provided in a lump-sum form (e.g., by an increase in the foundation level or in the flat grant portion of an aid formula) or by some sort of matching arrangement. From the demand equation, it can be seen that an amount of per-pupil aid, s_1, results in an increase in real per-pupil expenditure equal to $b_2 a s_1$ if the aid is provided to the local district strictly as a lump-sum grant. However, if the aid is provided as a matching grant, the effect is to change the local share, c, from its initial value of unity (with no aid) to a new value, $1 - s_1/e$, resulting in an expenditure increase equal to $b_6 p a (s_1/e)$. It can be shown that the latter quantity is greater than $b_2 a s_1$, meaning that the stimulative impact of a given amount of aid money is greater if the aid is provided as a matching grant.

A related implication, which can be derived by inspection of the demand equation, is that a decrease in the local share of a matching formula by a given fraction should have precisely the same impact on spending as a decrease by the same fraction in the relative price of education. This is a common sense result. It simply means that a decision by the state to finance one-third of each district's budget (on the assumption that no state aid had

been provided before) would have exactly the same effect as a one-third reduction in the costs of all educational resources. Either way, from the point of view of the district, the same amount of resources could be obtained at two-thirds of their former price. This demonstration of the equivalence of price change and matching grant effects is highly significant in relation to the study goal of being able to predict effects of alternative aid formulas. Among the aid alternatives that we would want to analyze are many that involve some kind of matching arrangement. Yet, most states have little or no experience with matching formulas, having always provided aid via flat grant or foundation aid plans or other lump-sum aid formulas. The question that then arises is how is it possible to estimate the effects of matching grant formulas in the absence of past or current experience. The theory provides an answer: If we can estimate the response of spending to changes in relative prices, we will then be able to infer probable effects of matching formulas even in the absence of direct experience. This underscores the practical importance of longitudinal analysis, which has been shown to be necessary in determining the effects of price changes.

A final implication of the model that seems worth noting has to do with estimation of the rate of substitution of state aid for locally financed expenditures. Although it would be convenient to have a single numerical estimate of the rate of substitution, the model implies that no such number can be obtained because the rate of substitution depends on the ratio of school ADA to population in each district. As can be seen, that ratio, a, appears in both the lump-sum and matching grant terms of the demand equation. This means that whatever form of aid is provided, the impact on spending will be proportional to ADA/population. Stated differently, the impact of aid on per-pupil expenditure depends on the amount of aid provided per capita in the community rather than on the amount provided per pupil in ADA. This is a result that would probably not be obtained intuitively, but that follows from the basic formulation of trade-off behavior in the theoretical analysis.

Some Empirical Results

Although the empirical work on this project has not been completed, a discussion of some interim results may help to illustrate the kinds of studies that can be based on the theoretical model. These results are from the part of the work that deals with comparisons of educational spending among the states. That is, they are not based on financial data for individual school districts but on aggregative data representing spending by all school districts within each state.

Using selected data from the biennial survey of state school systems of the U. S. Office of Education[8] and economic data published by the U. S. Department of Commerce, Office of Business Economics, we were able to test an equation of the following form:

$$e = b_0 + b_1(y \cdot t_y) + b_2 \, as + b_3 \, ag + b_4 \, pa$$

146

where s and g are per-pupil grants from the state and the federal government, respectively, and the other variables are as defined previously. This is a truncated version of the equation shown earlier. It does not include the variables representing the composition of the tax base or the level of noneducational taxes in each state. We have not yet been able to construct appropriate sets of data for those two variables.

The relative price variable measures year-to-year variations in nation-wide unit costs of education relative to the general price level. It does not measure variations among the states. Relative costs of education in different years were obtained by extrapolating an educational cost index of the type developed by Woollatt.[9]

It was possible to apply the equation to data for seven school years beginning with 1953-54 and including alternate years up to 1965-66. Also, the equation was fitted to pooled data for all seven years. Table 1 gives the regression coefficients, standard errors of the coefficients (in parentheses), the coefficient of determination (R^2), the standard error of estimate, and the coefficient of variation for each equation. For each year, the equation accounts for 76 to 80 percent of the variance in expenditure among states, resulting in a standard error of estimate that is about 11 percent of the mean value of real per-pupil expenditures.

It is apparent from examining the tabulated coefficients and statistics that conversion of the financial data to real terms and inclusion of an explicit price term has resulted in a model that produces consistent results from year to year. This is in contrast to some earlier studies that found the explanatory power of a cross-sectional model greatly diminished when applied to later data. Consistency over time is one indicator of the validity of the basic formulation.

Let us turn to specific results. The equations seem to show that variations among states in the amount of aid provided per pupil account for only a very small part, if any, of the variation in per-pupil expenditure once other variables have been taken into account. In other words, increases in the proportion of school expenditures financed by the state appear to have only a slight positive effect on expenditure levels. Federal aid appears to have a more significant additive effect on spending, although the values of the coefficients applicable to federal aid per capita, which run about 2.0, correspond to only about 40 to 50 percent additivity of federal funds per pupil. Of course, the analysis is not yet complete, and changes in the form of the equation or inclusion of addition variables may significantly modify the results.

An analysis of the differences between actual and predicted values of per-pupil expenditures for individual states revealed that at least one additional factor needed to be taken into account. This was a South versus non-South regional difference. Our results confirmed the finding reported by others that expenditure levels in the South were significantly lower than in the rest of the country even after income differences were allowed for.[10] However, in the attempt to include a regional variable in the regression equation, it was found that the regional effect was somewhat more compli-cated than has been expected, as is illustrated by the following two equations:

(1) No regional variable:

$$e = 60 + .162 (y - t_y) + .424as + 1.95ag - 308pa \quad R^2 = .78$$
$$\quad\quad (.005) \quad\quad\quad (.108) \quad (.42) \quad (43)$$

(2) Regional variable included (R = 1 if a southern state, O otherwise):

$$e = 117 - 66R + .126(y - t_y) + (.55 + .79R) as + 1.97ag - 275 pa \quad R^2 = .82$$
$$\quad (10.6) \; (.007) \quad\quad\quad (.10) \; (.29) \quad\quad (.38) \quad (40)$$

Notice (a) that the explanatory power of the equation improves when the regional variable, R, is included; (b) that R appears twice in the second equation: first, as an additive term; second, as a term modifying the coefficient of state aid. This means that per-pupil expenditure is lower in the South, other things being equal, and also more responsive to the level of state-local transfers. It remains to be determined whether the latter difference can be attributed to specific characteristics of the school aid formulas used in the South. We also tested the same regional variable in the cross-section equations for individual years and found an even larger improvement in the equation statistics. However, those results showed a diminishing trend in the regional effect, to the extent that it was impossible to demonstrate a

TABLE 1.—REGRESSION RESULTS FROM AN INTERSTATE COMPARISON
OF EDUCATION EXPENDITURES

$$e = b_0 + b_1 (y-t_y) + b_2 as + b_3 ag + b_4 pa$$

Year	b_0	b_1	b_2	b_3	b_4	R^2	Standard error of estimate	Coefficient of variation
1953-54	159	.132 (.021)	.370 (.444)	1.49 (2.19)	−645 (251)	.76	31.9	.12
1955-56	189	.123 (.022)	.639 (.410)	2.70 (2.07)	−729 (251)	.76	31.5	.12
1957-58	152	.139 (.018)	.699 (.280)	3.88 (1.35)	−643 (203)	.81	29.5	.11
1959-60	116	.153 (.021)	.289 (.311)	2.46 (1.13)	−479 (219)	.78	31.3	.11
1961-62	173	.146 (.019)	.290 (.306)	2.11 (1.11)	−605 (213)	.77	32.4	.11
1963-64	131	.154 (.019)	.390 (.272)	2.27 (1.04)	−504 (201)	.76	34.1	.12
1965-66	106	.163 (.017)	.543 (.224)	1.72 (.842)	−492 (180)	.79	32.9	.10
Pooled	60	.162 (.005)	.424 (.108)	1.95 (.416)	−308 (42.7)	.78	31.9	.11

Figures in parentheses are standard errors of the coefficients.

148

significant South versus non-South difference in 1965-66, the final year of the analysis. This is a finding with potential policy significance, but one that needs to be confirmed by further work.

At the present time, we are seeking to extend and improve the analysis in several respects. First, as I mentioned, we hope to be able to include variables to represent variations among states in the composition of property tax bases and in levels of state taxes and local taxes for functions other than education. Also, we have been experimenting with different ways of developing measures of differences in education costs and in the general price level among states. Finally, we are now trying to systematically compare state aid formulas among states to see whether differences in the characteristics of aid formulas can be used to help explain expenditure variations, especially the North-South differences in the responsiveness of expenditures to levels of aid.

Apart from these improvements, we will shortly be able to extend the scope of the analysis considerably by making use of the annual estimates of state school statistics compiled by the Research Division of the National Education Association.[11] Using those data, which provide a continuous 17-year time series on state school expenditures and revenue, we will be able to look at longitudinal data for individual states as well as the annual cross sections. This should make it possible to test hypotheses about the fiscal behavior of individual state school systems that could not be investigated with the biennial U. S. Office of Education data.

Using a Model in Policy-Making

At the beginning, I identified the goal of this project as being able to assist decision-makers at the state or federal level in choosing among alternative aid formulas. Therefore, having discussed the technical aspects of the work at some length, it seems appropriate to refer back to that objective and say a few words about how econometric expenditure models may be used as policy-making tools. As an illustration of the potential applicability of such a model, we will consider its use at the state government level in planning state financial aid to local school districts.

Suppose a state education department or the education committee of a state legislature is considering proposals for changing an existing foundation aid plan: One alternative might call for distribution of an additional flat grant per pupil; another might call for an increase in the equalized foundation program; a third might call for replacement of the foundation aid formula with a plan for state matching of locally provided funds. Each plan can be represented by aid formula parameters. Depending on the formula, these parameters might include the level of flat grants, the foundation level, the minimum required local tax rate (if applicable), the local share (for the matching plan), and so forth.

Assume that a model has been developed that predicts school district expenditures from information on district income, population, ADA, property value, and other variables, including the values of the parameters of the aid formula. Assume that data on the relevant variables are available for each district or for each of several classes of districts in the state. In analyzing each alternative the analyst would apply the model to each district or class

of district, inserting the appropriate values of district characteristics and aid parameters. He would obtain estimates of total and per-pupil educational expenditures that would be forthcoming under that alternative. From these he would calculate any of a number of measures of fiscal impact that might be of interest to concerned executives or legislators. For example, one relevant measure might be the change in local educational outlay per dollar of state aid. This would indicate the degree to which a proposed aid increment would be likely to add to or substitute for local educational spending. Such a measure could be calculated both for the state as a whole and for specific categories of districts. Other measures would include different indexes of inequality of educational expenditures per pupil among districts. These would serve as indicators of the distributional impact of the aid proposal. Of course, to make comparisons possible, the same measures would be calculated for all three alternatives and for the "null" alternative represented by continuation without change of the existing aid formula.

It would be the job of the responsible decision-makers to assign weights to the different indexes of aid "performance" to use in evaluating and choosing among the alternatives. Or the analyst might suggest new alternatives that could combine desirable features of two or more of the original proposals. Thus, an iterative process might ensue in which the fiscal impact model was applied at each stage until a preferred alternative was selected.

Why would such information be desirable? As things now stand, officials considering proposed changes in state education aid formulas are able to look at data on the amount of aid to be received by each district, the existing level of expenditure in each district, and the total cost of each aid plan to the state. They are provided with no information, because none is available, on the probable fiscal response of the districts to enactment of the different plans. Consequently, either the officials can draw no conclusions about how the plans will affect expenditure levels, or, what is more likely, they judge each plan as if all of the increased aid were to be added to the existing level of district expenditure. In general, the latter would not be correct. Some aid formulas may result in substitution of increased state aid for local funds; some may stimulate increased local spending. It is even possible that one plan would produce a greater over-all increase in educational spending than another that requires greater outlays by the state. Moreover, because alternative aid arrangements may have differential effects on different districts it is possible that two plans could have different distributional implications though they appear to involve similar patterns of aid apportionment. Therefore, since the full implications of an aid formula are unlikely to be readily apparent, analysis may well lead to development of a better plan than might otherwise have been selected.

150

FOOTNOTES

[1]James, H. Thomas; Thomas, J. Alan; and Garms, Walter. *Determinants of Educational Expenditures in Large Cities of the United States.* U. S. Office of Education, Cooperative Research Project No. 2389. Stanford, Calif.: Stanford University, School of Education, 1966. 198 p.

[2]Many of the recent articles in the field are referenced in: Wilde, James A. "The Expenditure Effects of Grant-in-Aid Programs." *National Tax Journal* 21:340-48; September 1968.

[3]Williams, Alan. *Public Finance and Budgeting Policy.* New York: Frederick A. Praeger, 1963. p. 171-80.

Wilde, James A., *op. cit.*

Wilensky, Gail S. R. *State Aid to Education.* Doctoral dissertation. Ann Arbor, Mich.: University of Michigan, 1968.

[4]As developed, for example, in: Davis, Otto A.; Dempster, M. A. H.; and Wildavsky, Aaron. "A Theory of the Budgetary Process." *American Political Science Review* 60:529-47; September 1966.

[5]Expenditures refers to total current expenses of education. Capital outlays are not included in this analysis.

[6]Note that the quantity y · t_y is real *disposable* income per c $_p$ita.

[7]To keep the exposition simple, only state aid will be included in the model. An analysis of the effects of federal aid would proceed along parallel lines.

[8]U. S. Department of Health, Education, and Welfare, Office of Education. *Statistics of State School Systems, 1965-66.* Washington, D. C.: Government Printing Office, December 1968. 77 p. See also equivalent publications for earlier years.

[9]Woollat, Lorne H. *The Cost of Education Index, 1939-1958.* Baltimore, Md.: Board of Education, Bureau of Research, December 1958.

[10]A South versus non-South difference in Expenditure patterns was reported by James in the study cited earlier. Also see: Shapiro, Sherman. "Some Socioeconomic Determinants of Expenditures for Education: South and Other States Compared." *Comparative Education Review* 6:160-66; October 1962.

[11]National Education Association, Research Division. *Estimates of School Statistics,* annual compilation.

Federal Income Tax Rebates to the States

L. L. Ecker-Racz

YOUR INTEREST IN the suggestion that the federal government share its income tax collections with state and local governments reflects your concern with the financing of public schools. Adequate financial support of the public schools is a persistent problem. But will revenue-sharing contribute to a lasting solution?

The dramatic growth in the financial support of schools over the past 20 years has come as a welcome surprise. None could have anticipated the high rate of increase in school revenues during the 1950's and particularly during the 1960's. You are familiar with the figures: a doubling at 7- or 8-year intervals. Surprisingly, too, all three levels of government—local, state, and federal—contributed generously.

Good past performance notwithstanding, most school systems critically need more revenue. I know of none that looks forward to easy financial sailing. In most places needs exceed resources in prospect; the immediate future is especially grim.

Pressures for expenditure increases emanate from diverse sources: the improving bargaining position of public employees is escalating the budgetary requirement for salaries and fringe benefits, price inflation is pushing up the cost of capital improvements and maintenance, and the level of interest rates makes debt service more burdensome. At the same time, efforts to improve program quality—also a cost factor—are continuing, albeit at a slow pace.

Meanwhile, revenue growth is slackening. The expected economic slowdown will be reflected in tax collections. Improvement in state support and particularly in federal support is coming almost to a halt. Political resistance to state and local tax increases is widespread, encouraged in the case of school taxes by public dissatisfaction with the contribution of past tax increases to the quality of educational programs and in part by the desegregation issue. The National Administration's emphasis on the need for retrenchment to contain inflation is also reinforcing anti-tax sentiments at local levels.

The disparities in fiscal capability between central city and suburban systems are persisting, even becoming aggravated. The high cost older

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industrial cities frequently are at or near the politically acceptable tax rate ceiling; at the same time, the slow-down in intergovernmental aid is restricting further the all too feeble equalizing influence of state and federal funds.

In this fiscal environment, the suggestion of the Administration that the federal government share its income tax collections with state and local governments falls on welcoming ears. It is not an overly bold suggestion. As proposed by the President, the amount earmarked for state and local governments would build up from $275 million next year to about $4 billion over the succeeding four years. Over this same period the needs of these governments for new revenue are expected to increase by over $50 billion. The program will not solve their financing problems, not even a significant share of them. It will establish, however, the principal of revenue sharing and this devise has substantial potential for growth.

Revenue sharing is not a new idea. Several states have shared some of their tax income with local governments for many years. If one stretched the point, even federal precedents could be cited. The proposal that the federal government share its income tax collections, voiced here and there in learned journals some years ago, became an actively debated idea only a half dozen years ago, following its public espousal by Walter Heller. You are familiar with his persuasive logic from his previous associations with this group.

Two features of the revenue-sharing proposal are particularly interesting: that the states with their local governments would be allotted an amount equal to a specified percentage of the taxable income of the people, so that the amount shared will increase as the people's income grows regardless of what happens to federal taxation; and that unlike present federal grants-in-aid, these funds may be used as freely by the recipient governments as they would use funds raised from their own sources.

Heller proposed revenue sharing for various purposes, among them: to assist hard-pressed states, to reduce the tax drag on the economy, and to improve the distribution of the country's aggregate tax burden. He is understandably troubled, as all should be, by reductions in federal income tax rates while regressive consumer and property taxes break through one ceiling after another.

The Administration's version of the revenue-sharing proposal comes packaged in the context of those objectives it embraces by the term "New Federalism." Its aim is to strengthen leadership at the state and local levels and to permit de-emphasis of direction at the national level. All too much power, it holds, has been grabbed by Washington. The compatibility of this doctrine with the future of federalism in general and strong school finances in particular, warrants more thought than has been given it. If it be true that decentralized decision making inevitably takes excessive license with reason and the public interest in the name of political necessity, because elected local officials are obliged to vote the pocketbook interests of their constituencies to stay in office—and I believe that it does—political power may be too decentralized already for our national well-being. I shall return to this provocative assertion presently.

You have observed that some of the most vocal advocates of strong federal financial support of local and state functions, particularly education,

have been cool to revenue sharing and that several of the politically most effective groups have opposed it. Their position is not without logic. They know that federal funds are always limited, they prefer to preserve priority for functions of particular interest to them, and they are preoccupied with particular functions.

Closely related is a deep-seated distrust of state legislatures. A prime political objective in state capitals is to avoid tax increases. Consequently, unrestricted federal aid such as revenue sharing could lessen local tax effort rather than buttress spending levels. Critics also charge state legislatures with allocating available revenues in proportion to political muscle rather than on the basis of need, with a bias in favor of rural, and more recently, suburban areas, discriminating at the same time against the old urban centers where needs and problems are most acute.

There is no denying that if the Congress should have the budgetary latitude to increase federal aid by $5 billion, for example, education would be better served if it appropriated those billions specifically for this function. It is an incontrovertible assertion although educators have a vital interest in the quality of all governm ntal programs, the support of public education has been a major preoccupation of most state legislatures in recent years, and a large share of state aid is earmarked for education.

The prospect of federal financial aid moving changing funds restricted to specified functions and to general purpose funds may well concern the friends of schools and local government generally for another reason as well.

The dramatic growth in federal financial support since World War II, and particularly during the 1960's, came in response to pleas that state and local governments were unable to meet urgent needs out of their own resources. And certainly none can contest the comparatively stronger fiscal position of the national government. However, it is also irrefutable that local and state government inability is partly the result of obsolete political structures, overly restrictive constitutional and statutory provisions, excessive governmental fragmentation, exclusionary zoning practices, and so forth. Although study after study has concluded in favor of constitutional and statutory changes to conform political institutions and practices to contemporary circumstances, precious little has been accomplished. Indeed, precious little should have been expected. These restrictive institutions were voted into existence in response to politically compelling pressures and have been preserved by them.

Popularly elected representatives in state and local governing bodies feel obliged to reflect the views of their constituencies, and constituencies want their self-seeking interests protected. As political sophistication has improved, the electorate's control has increased. Moreover—and the point merits emphasis—local and state officialdom has found it practicable to preserve the anachronisms voted by their predecessors and to neglect urgently needed reforms that would increase local fiscal capability in part because federal and state financial aid increased rapidly and helped to relieve revenue pressures without maximum increase in local effort.

Indeed, it may not be an overstatement to conclude that the dramatic increase in federal financial support, and in some measure, of state support,

154

has tended to subsidize obsolete and divisive institutions that should long since have been banished. If outside support had been less generous, compelling expenditure pressures would have forced more of the needed reforms upon reluctant state and local lawmakers.

If you share this view, you will want to look critically at the current trend in the philosophical approach to intergovernmental relations: that political power must be shifted from the national to the state and local levels; that state political freedom needs to be enhanced; that to these ends strings on federal funds should be relaxed to give state and local political leaders more license in the use of federal funds because they "know best." They well may "*know* best" but political realities are more likely than not to prevent them from *doing* the "best."

Incontestably, this governmental system suffers from fiscal imbalance. Needs for domestic government tend to be concentrated at the state and local levels while revenue resources tend to drift to the national level. Inevitably, federal financing of domestic governmental needs will have to continue to increase. In the process, however, political influences cannot be allowed to atrophy local revenue-raising capability. A society with an aversion to paying taxes perpetually undernourishes its public sector and handicaps its ability to respond adequately to people's needs. The battle for adequate public budgets is unending, and it behooves those concerned with the public interest no less than with their personal pocketbooks to protect revenue-raising capability at the local and state levels while they seek to slacken the purse strings at the federal level.

A century of experience testifies to the effectiveness of federal grants in overcoming political barriers to required local action. This federal system's time-honored technique for promoting one or another state or local activity deemed to be essential in the national interest—be it in the area of welfare, health, or education, in road or hospital construction, in water conservation or curbing of pollution—is to buy it with financial aid. I submit that the available federal funds are too scarce to be distributed for the taking while long delayed reforms in local institutions can be had only by buying them. Our enthusiasm for the offer of additional federal dollars to state and local governments should not be allowed to obscure the fact that these federal dollars are capable of helping to push state and local governments toward reforms urgently desired in the public interest and in furtherance of important national policies—reforms not attainable in other ways because they conflict with local political pressures.

I would regret it if what I say here is interpreted as critical of the concept of revenue sharing. Of course, I favor revenue sharing. In view of the fiscal imbalance in this federal system, increased national financial support of state and local government, whatever its form, will necessarily contribute to the effectiveness of this governmental system. However, it can maximize that contribution only if it ceases to subsidize anachronistic institutions that foster divisiveness, and is used instead as a positive instrument for riding the state constitutions and statutes of these anachronisms.

Voter Behavior in School Bond and Tax Elections in Ohio

Byron H. Marlowe

During the 1960's Ohio, like other industrial states, was faced with increasing taxpayer resistance to passing school bonds and tax increases. This declining voter support of local school tax levies has created a school financial crisis, for schools in Ohio derive most of their financial support from local property taxes, assessed and collected within each county. A 10-mill limitation is granted to the County Budget Commission which in turn allocates a portion of that money to school districts. Most school districts in Ohio receive from 3 to 5 mills of this millage. Additional property tax millage must be approved by the voters. Since 1968, these levies may extend for indefinite periods of time, whereas prior to 1968 most levies were for a fixed number of years.

State aid in Ohio accounts for 31 percent of school district expenditures; however, all districts do not receive equal per-pupil amounts. The percent of state aid has remained the same; thus the major burden of financing school districts has rested with additional property tax levies. As a consequence the average school district millage has risen from less than 20 mills in 1960 to over 30 mills in 1970.

Trends, 1946-1969

School districts, like other taxing jurisdictions, experienced little difficulty passing tax or bond issues until the mid-1950's. As shown in Figure I, schools experienced a downward trend in voter approval of new levies during the late 1950's and the 1960's. This decline in voter support has accelerated in the late 1960's when school districts faced the problem of rapidly rising costs. This trend has affected both new money requests (new operating tax and bond issues) and renewal issues. Thus, it is clear that although renewal issues almost always pass, voters are expressing increasing opposition to any tax levy.

Figures I and II show the declining percentage of successful issues during the 1960's. Figure III presents dramatic evidence for the financial crisis of school districts. The index of new issue size clearly demonstrates that during an inflationary period schools must be on the ballot with increasingly large issues. The size of new issues was proportional to the consumer price index until the last two years.

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Figure I

Distribution of New Tax Issues
by Voter Percent Yes, 1954-1969
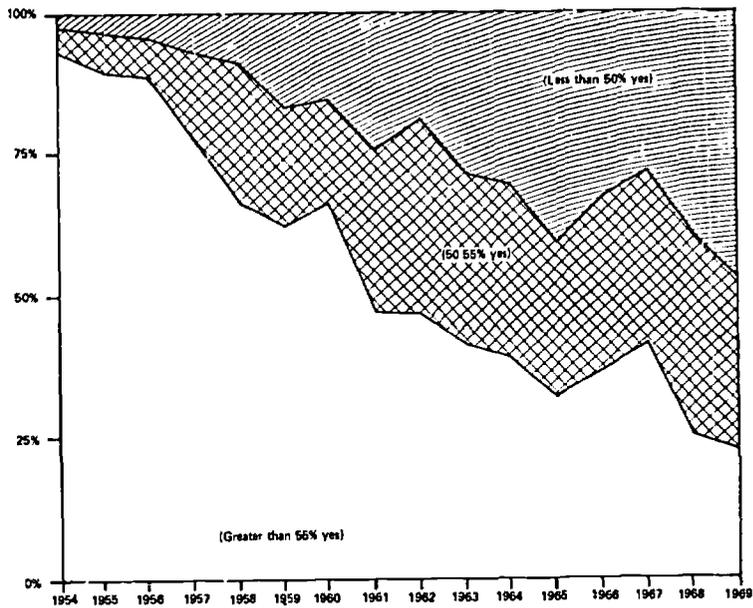
Figure II

Average Percent Yes Vote
for All New and Renewal Issues,
1952-1969

159
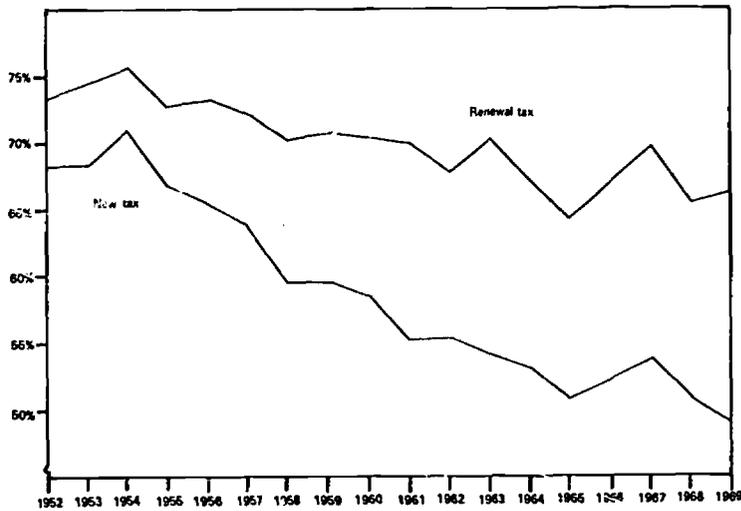
Figure III

Size of New Tax Issues and Consumer Price Index 1957-1959 = 100
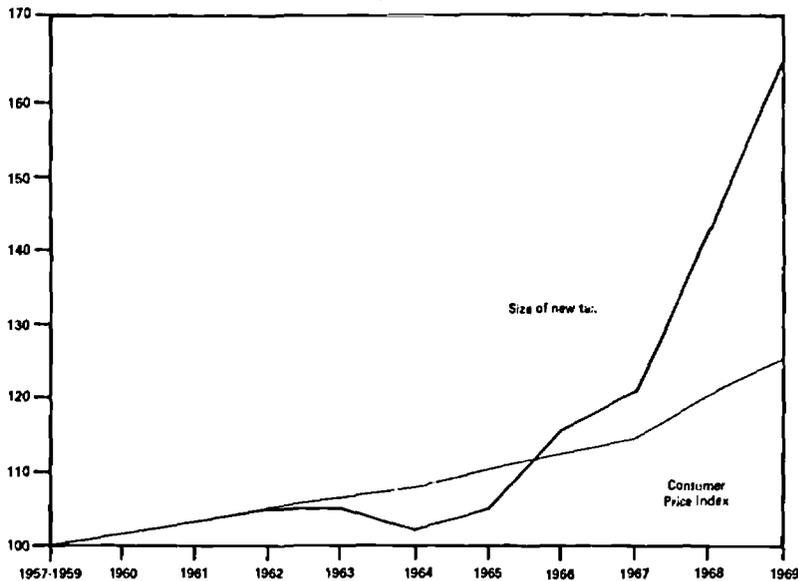
We also notice that during this period, as represented in Figure IV, school districts were on the ballot with increasing frequency during the past decade. The average number of issues per district shows that most districts are now on the ballot every year or so.

The increased difficulty in passing school levies requires that we examine the factors leading to voter disapproval. In the larger study, of which this paper is a part, I examine all school bond and tax elections in Ohio since 1946 in an attempt to better understand the phenomenon of voter resistance to school levies. This paper is a brief discussion of two questions: Is there a "best" date to be on the ballot? What types of issues in what types of districts are the most difficult to pass?

Scheduling of Elections

Several previous studies looked at the question of when to schedule school elections, but findings were inconclusive. In the case of school districts in Ohio, I noted two scheduling patterns during the early and mid-1960's and concluded: (a) A greater percentage of issues will pass in a presidential

160

election year than in a congressional or off-year election. (b) Within any given year more issues will pass in the general election than at the primary or at specials. As a consequence, off-year and non-general elections are characterized by greater extremes of voter support or rejection of tax issues. Until recent years very few tax issues were scheduled in special elections. As shown in Figure V, the number of specials generally increased during the 1960's, reaching 102 in 1969.

As the percentage of issues approved continued to decline, schools held special elections to go on the ballot alone or to reschedule a previously defeated levy. As voters began to disapprove levies, school officials shifted to special elections in an attempt to isolate the issue of their district financing from other financial questions. This pattern paralleled the experience with bond issues; however, the results differed substantially.

Bond issues at special elections during the 1950's experienced a higher rate of passage than those scheduled in May or November. They tended to be smaller issues and were most often for districts of under 3,000 pupils. Thus, it is safe to generalize that those districts faced with the most pressing building needs as a result of population growth or consolidation were able to successfully schedule relatively small issues at any time during the year.

Figure IV

Number of School Issues per District
1957-1969

161
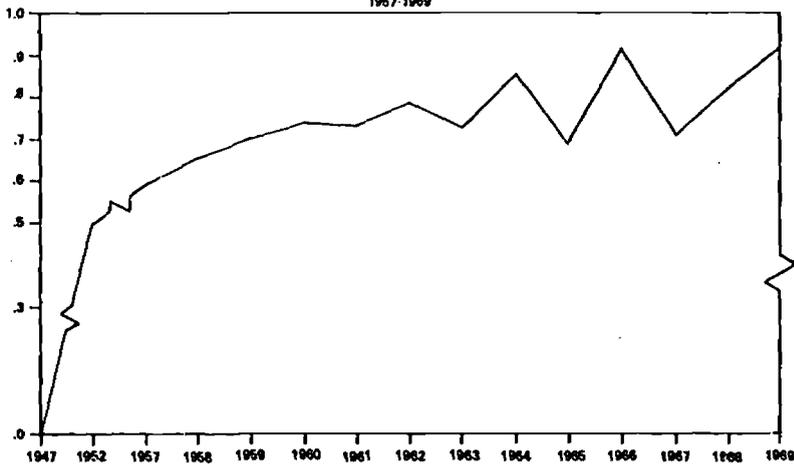
Figure V

Scheduling of New Elections
in Special, Primary, and General Elections,
1960-1969
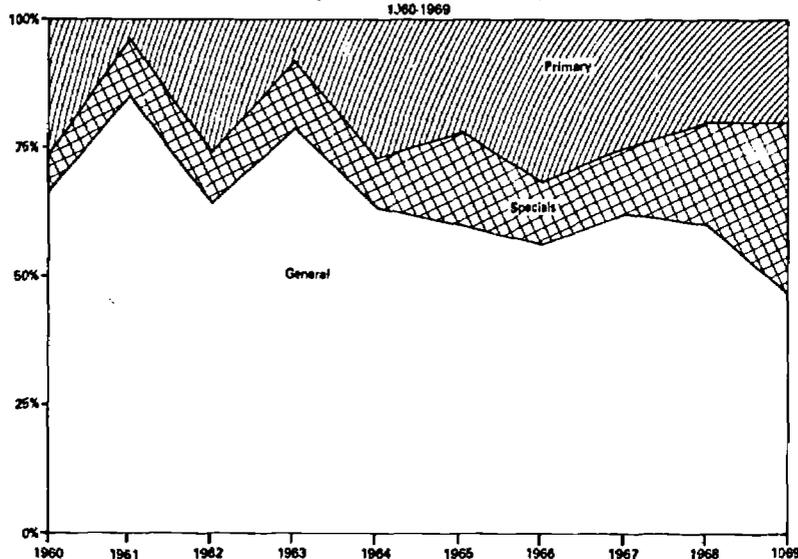
Our experience with new tax issues in the 1960's was much different.
Those scheduled at special elections were seldom successful. As shown in
Table 1, a tax issue's chances of success were much better during the primary
or general election.

TABLE 1.—PERCENT OF NEW TAX ISSUES FAILING IN OHIO
BY DATE OF ELECTION, 1966

Type of district	May	June-October	November	December
State	30.0%	66.7%	27.2%	67.6%
City	29.0	100.0	23.0	78.0
Locals	28.0	50.0	29.0	67.0

[a]Breakdown by city and local may not equal state figures because exempted village
school districts are not reported.

The second reason for using special elections is to make a second or
third try for passage of a defeated issue. Table 2 reports on the second or third
try pattern during 1968. The most common pattern is to schedule an issue in
November, and if it is defeated, to reschedule it in December because Ohio
taxes approved in December are effective January 1. The school district
attempts to portray to the voter a "last chance" situation in December. The
second most common pattern is to hold the first election in May, and if
defeated, a second try in November. Since Ohio allows three elections during

a calendar year, the May to November schedule has the advantage of making a third try in December if it is necessary.

TABLE 2.—NEW TAX ISSUES VOTED ON IN OHIO TWO OR MORE TIMES, 1968

Election results	May-November	May-Special	Special-November	November-December	Other	Total
Fall-fall	13	12	5	24	1	55
Fall-pass	22	7	14	39	2	84
Total	35	19	19	63	3	139

As we can observe from Table 2, the pattern of voter approval differs rather substantially among the special, primary, and general elections. The November general election remains the best opportunity for most Ohio districts to pass tax issues.

Characteristics of Defeated Levies

The following premises were examined: that the larger new tax issues fail, that the higher the total millage of a district the greater is voter resistance to increased expenditure, and that the greater the wealth of a district the easier it is to pass issues. Additional variables under examination include the effect of district size, the expenditure level per pupil, and the voter turnout per pupil. At this time we can make only limited generalizations from the data; however, there seem to be some very intriguing relationships within and between several of these variables.

Size of Tax Issues

Voters did not distinguish between large and small tax issues until 1963. Since the mid-1960's, however, larger issues have been defeated with more regularity and by larger margins each year. The smallest school districts (under 3,000 pupils) were the first to experience consistent defeats of large tax issues, while medium size districts (3,000 to 10,000) were the last. During this same time school districts also found it necessary to schedule larger issues. There is something of a parallel with bond issues since there is a consistent pattern of voters approving the small bond amounts per pupil and

TABLE 3.—PERCENT FAILURE BY SIZE OF BOND ISSUE PER ADM, OHIO CITY AND LOCAL DISTRICTS, 1967

Area	Size of bond/ADM		
	$50	$50-$99	$100 or More
State	24%	27%	40%
City	20	0	0
Local	24	40	50

disapproving the larger per-pupil issues. Table 3 reports the rates of failure by bond amount per ADM. The very clear difference between city and local districts indicates that voters in urban and rural areas have very different perceptions about what are appropriate amounts for bond issues.

Total Tax Millage

We have traditionally assumed that the higher the district's property tax millage the greater the resistance to new tax levies. However, the data, especially for the early 1960's, challenges this assumption. In nearly every year the highest rates of voter approval of new issues occur in districts which have tax rates at both extremes of the existing property tax scale. The highest percentages of issues passed are usually in districts of under 20 mills; however, the second highest rate of passage often occurs in districts levying over 50 mills (especially local districts). Districts with average tax millage consistently have the most difficulty passing new issues. In the case of bond issues the opposite of the common sense assumption is true—voter approval tends to increase with increased total millage.

Property Tax Valuation per Pupil

It seems a safe assumption that approval of new tax issues will be highest in those districts with the most taxable wealth. Although this common-sense assumption is supported by the data of Ohio city school districts, wealth makes no significant difference in the rate of passage in local (rural) school districts. Table 4 shows the contrast between the city and local districts during 1966.

TABLE 4.—PERCENT OF NEW TAX ISSUES FAILING IN OHIO
BY TAX VALUE PER PUPIL, 1966
(State Average = $15,000)

Area	Less than $10,000	$10,000-$19,999	$20,000 More
State	50.9%	52.7%	55.5%
City	50.4	52.2	61.8
Local	51.4	53.0	53.9

Size of District

As indicated above, the size of the school district influences several other variables. (Large new tax issues were first heavily defeated in districts' with fewer than 500 pupils, bond issues were hardest to pass in districts with fewer than 3,000 pupils, and small districts were the first to experiment with special elections.) Until 1957 the very small school district (under 500 pupils) experienced a level of voter support 10 to 15 percent higher than that for other districts; however, there are indications now that the smallest school districts now have the most difficulty passing new tax levies.

164

Expenditure per Pupil

During the 1950's and early 1960's the strongest support for new tax issues was in those districts spending the least money per pupil, but since 1964 there has been little difference in the state-wide approval of issues by different expenditure levels. Although expenditure per pupil no longer shows a state-wide pattern on passage of issues in the 1960's, we find an interesting contradiction; in city districts (generally urban) support of school issues increases as the expenditure level increases, whereas in local school districts support of issues decreases as the per-pupil expenditure increases.

Vote per Pupil

There is no more intriguing variable in this study than voter turnout. Although other studies have shown very clear relationships between voter turnout and passage or defeat of issues, this examination of voter turnout per pupil on a state-wide basis is inconclusive. I must therefore conclude that there are certain types of districts in which voter turnout is an important variable; however, I do not have the necessary district-by-district data to identify those districts.

A detailed examination of the repeated issue in 1968 (Table 2 above) gives us some clues about the importance of voter turnout. In 90 percent of the cases the "yes" voter was under-represented in elections held earlier in the year, judging by the November election turnout, lending support to the contention that the "no" voter is more consistently represented at elections than is the "yes" voter. However, the cases of success between November and December are most commonly characterized by a falling away of "no" voters. Lending further support to the importance of vote per ADM is the fact that most of the defeated bond and new tax issues are characterized by low voter turnout per ADM. In contrast, the occasional renewal defeat usually comes with an especially high turnout, probably representing substantial community conflict or lack of consensus.

Bond issues during the period of this study generally show a negative relationship—as voter turnout increases passage of issues decreases. New tax elections in city school districts show a positive relationship with higher voter turnout resulting in increased passage of issues. In local school districts higher turnout leads to greater passage in even-numbered years, but a lower rate in odd-numbered years.

As briefly described above, the results of examining these variables against state-wide election patterns do not clearly identify those factors leading to levy defeats, except for an indication of urban-rural differences. To determine the characteristics of districts where voter resistance is having its greatest effect during the late 1960's, I will conclude with an examination of these selected Ohio school districts.

Characteristics of Troubled Districts

Fifty-five Ohio school districts experienced defeat of new tax issues two or three times during 1969, resulting in a dozen school closings. Many times this number of closings are expected during the last months of 1970.

Generally speaking, districts that have faced continued levy defeats are not concentrated within any particular typology. They include medium sized to small districts, wealthy and poor districts, and are in all geographical areas of the state. However, these districts, as shown in Tables 5 and 6, show very different characteristics when separated by rural and urban differences.

TABLE 5.—CHARACTERISTICS OF OHIO DISTRICTS EXPERIENCING THE GREATEST DIFFICULTY PASSING NEW LEVIES, 1969

| (100 percentile is highest rank) | Number of Districts by Percentile | | | |
| | Tax value/ADM | | School millage rate | |
	City	Exempted village and local	City	Exempted village and local
81-100 percentile	6	2	5	10
61-80	6	5	2	7
41-60	6	6	4	7
21-40	1	12	5	3
1-20	1	10	4	8

City school districts tend to be average or above average in wealth and receive a low percentage of state aid, while the local school districts are most often below average in taxable wealth and thus heavily dependent upon state aid.

TABLE 6.—PERCENT OF STATE AID IN TROUBLED DISTRICTS, OHIO, 1969
(Average = 31%)

| Type of district | Percent state aid | | |
	Over 35%	25% to 35%	Less than 35%
City	3	7	8
Exempted village and local	25	11	1

To further characterize these financially troubled districts, I have compared their relative position in the state on tax valuation per pupil and school tax millage. By subtracting the tax rate from the property valuation rank, I have created a millage/wealth index, measuring the amount and direction of the spread between these two variables. Thus, at the extremes of Table 7 I have either (a) districts with high tax rates and/or low tax valuation per pupil, or (b) districts with low tax rates and/or high tax valuation per pupil.

Although districts are spread on both sides of the "equity" point, the city districts tend to be concentrated in the "underpay" side of the index (low millage and/or wealthy), while local districts are concentrated on the "overpay" side. It is important to realize that different economies of

166

**TABLE 7.—DISTRIBUTION OF TROUBLED DISTRICTS IN OHIO
BY MILLAGE/WEALTH INDEX, 1969**

| | Number of districts by rank difference | | | | | | |
| | High tax and/or low value/ADM | | | | Low tax and/or high value/ADM | | |
Type of district	500 400	300 200	100	Equity	100	300 200	500 400
City	0	2	3	3	4	5	3
Exempted village and local	5	11	5	6	1	5	2
Total	5	13	8	9	5	10	5

operation seem to be occurring between urban and rural districts. It is with this perspective in mind that the state-wide election returns will continue to be analyzed.

Trends in State Support of Public-
School Capital Outlay

W. Monfort Barr

A CBS DOCUMENTARY PROGRAM on January 22, 1970, was closely
related to the theme of our conference, A Time for Priorities. During the
1968-69 school year, according to the *New York Times*, of January 12, 1970,
a total of $3.9 billion in bond issues for school purposes was submitted to the
voters; only $1.7 billion, or 43.6 percent, of the dollar value was approved.

What was the real election issue? Were the voters rejecting the need for
school facilities or were they rejecting the assumption of the cost of the
facilities by the property taxpayer, as is mandated in a number of states?
Perhaps, as stated by a West Coast voter recently, "A school election is the
only time when a man can stand up and be counted. My negative vote was
against high taxes in general and against any further increase in property taxes
in particular." This disgruntled voter had a point. In his state a school bond
issue is retired and interest is paid by property taxpayers and only by
property taxpayers, if the shifting of incidence of taxation is ignored.

The U.S. Office of Education in 1968 presented to the Congress a
report on the nation's classroom needs. Classroom shortages exceeded
500,000, and the shortage has not been reduced since that time. In fact, the
annual construction of classrooms dropped from 75,400 to 69,700 during the
next year.

Classrooms to house educational programs closely related to the
country's societal needs comprised a substantial portion of the deficiency.
Included in the projects rejected by the voters were classrooms for the
economically and educationally disadvantaged, for children of preschool age,
for the technical and vocational training of our youth and adults, for
compensatory education, and for special education.

Spiraling interest rates on municipal bonds resulted in deferment of
bond sales in a number of states because the maximum interest rate permitted
by the school code was lower than the going rate in the municipal bond
market. Municipal bonds offered in 1969, but unsalable, totalled $2.9 billion
according to the Investment Bankers Association. Admittedly many localities
do not utilize the permissible tax levies and bonding to the maximum which

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Capital Outlay Project.*

the state permits. On the other hand district after district, using every avenue of obtaining funds which the state permits, finds itself in a financial straitjacket. Many districts have no remaining leeway for providing school construction funds within the maze of tax rate limits, debt limits, and other state deterrents which they face.

The National Capital Outlay Project, a satellite of the National Educational Finance Project, recently compiled data regarding state grant and/or loan programs for public school capital outlay and related debt service and lease-rental payments.

State Grants for School Construction[1]

Grants for public elementary- and secondary-school construction or debt service were made by 25 states in 1968-69. In addition state funds provided for school construction in Hawaii. The amounts distributed ranged from $175 million in New York, $66 million in Florida, and $50 million in Maryland and Pennsylvania to token amounts of less than $2 million in Illinois and Missouri. Since fiscal 1951 the amount granted for capital outlay in the country increased from $78 million to more than $633 million in 1968-69.

Funds in Indiana were distributed primarily for debt service and in New Hampshire for bond retirement. The remaining states granted funds for construction of public school buildings. Debt service as well as capital outlay could be paid from grant proceeds in 12 states. At least two states, New Jersey and Utah, permitted the accumulation of granted funds in local capital reserve funds.

Several state capital outlay grant and loan programs specifically provided additional funds for other than regular classrooms. The California loan program, which may be superseded by a state grant program, provided loans for special education classrooms and for space needs related to poverty, social tensions, low achievement, and migratory workers. Regional school districts received additional construction grants in Connecticut, Maine, and Massachusetts. Enrollment increases were recognized by specific grants in Florida. Credit for local funds used in school construction was an added feature of the New Hampshire grant program.

A number of states recognized the space needs of special educational programs by including them in the building project which was approved for reimbursement. The cost of area or regional vocational, technical, agricultural, junior college, and community college facilities was a state responsibility in some states or was partially reimbursed by the state in others.

The principal source of funds for state capital outlay grants in 23 states was an appropriation from the state general fund. The number of states using the yield of state bond issues was 12. The permanent school fund was the source in one state and earmarked tax receipts in four states. Various combinations of these above sources were used in 25 states.

Local taxpaying ability was considered in the grant program of 14 states, resulting in equalizing grants for capital outlay. The typical measure of need utilized in the programs in 1968-69 was a specified portion of the approved project cost.

Fifteen states had no provisions for state capital outlay grants, loan programs, or school building authorities. Local property taxation and local school bond issues repaid by property tax revenues were relied upon almost exclusively for school construction funds in those states.

State Loan Plans[2]

Fourteen states reported loan plans in fiscal 1969. State loan plans have a long and distinguished history, having been utilized in Virginia as early as 1810 and in Wisconsin in 1844. A logical source of funds for state loans was the permanent school fund, derived in part from the Congressional land grants of the nineteenth century. Of the 14 states reporting state loan funds in 1968-69, six were utilizing permanent school funds as a source; six other states had turned to state bond issues for a source, thus substituting state for local credit; and the other two states utilized appropriations from the state general fund as a source.

State loans are used primarily to provide funds for construction of school facilities. Two states also provide for refunding of outstanding bond issues and at least two states permit use of the funds for local school district debt service. An unusual feature of several of the loan programs is the bypassing of local debt limits through an advance of state funds which would normally flow to the local district through the state school support program.

Considerable ingenuity has been used by the states in devising workable loan plans. Illinois, North Dakota, and Wyoming utilize lease-rental arrangements as a means of avoiding an increase of direct debt by local districts. Virginia purchases local school bonds. Georgia, Maine, and Pennsylvania have state school building authorities. Sale of bonds by these nongovernmental agencies does not incur direct state indebtedness; lease-rental arrangements with local school districts avoid direct local debt.

Advantages of the state loan programs and related arrangements are provision of a broad-based source of funds, economical state borrowing, and in some instances lower local debt service levies. Disadvantages are the limited amounts available in several states, a stop gap approach to the needs of financing local facilities, and a tendency to use subjective rather than objective criteria for allocating loans.

Loan programs, when adequately funded and when supplemented by state grants for debt service to fiscally weak local school districts, provide substantial assistance in meeting the acute classroom shortage. An inherent danger is that as operated in some states a loan program may be analogous to sweeping the problem under the rug. There can be no substitute for long-term fiscal planning for meeting the costs of needed classroom construction.

An Impasse

Preliminary findings of the National Capital Outlay Project indicate that state-local revenues cannot meet the classroom needs of the decade ahead. Recent experience has shown that state-local borrowing cannot close the gap between needed nonrevenue receipts and needed school construction funds.

168

A recent projection of the cost, in 1969 dollars, of providing needed classroom space for the country's public schools indicated an annual need of $7.8 billion during the decade ahead. A projection of anticipated state-local revenues for the same period indicated a serious dollar gap between revenues for schools and needed funds.[3]

Among several alternatives to the prospect of a partial moratorium on school construction are:

1. A major increase in the proportion of state-local revenues allocated to school construction

2. Creation of a governmental loan bank for provision of construction funds for public school facilities

3. Federal and/or state tax credits for that portion of local taxes which is paid for school construction and debt service

4. Federal tax sharing with the states as a source of funds for school construction

5. Federal grants to the states for public school construction.

Suggestions for Financing Public-School Facilities in the 1970's

1. Conduct school facilities needs studies in each state, financed by state and federal funds.

2. Develop an adequate coordinated grant and loan program in each state in support of public school construction and debt service.

3. Remove state contraints on provision of funds for school construction. Among these are:

   a. Low and arbitrary debt limits unrelated to local school district revenues

   b. Unrealistic interest rate ceilings on local and state bond issues

   c. State provisions that require that school construction funds and debt service be provided principally from property tax revenues

   d. State restrictions that prevent flexible governmental and nonge vn-mental cooperative financing of public school facilities

   e. Requirements of more than a majority vote for passage of bond issues and capital financing arrangements

   f. Limited tax rates for debt service.

4. Develop cooperative federal, state, and local financing of approved public school construction. rojects.

5. Provide for coordinated governmental and nongovernmental financing of public facility needs.

The NEA Research Division has estimated public school capital outlay to be $4.7 billion during fiscal 1970. As indicated above, $7.8 billion annually (in 1969 dollars) will be needed to adequately meet classroom needs during the decade ahead. Since this paper concerns primarily state-local funding of public school capital outlay, I will conclude by listing a few

guidelines for developing coordinated state and local support programs for capital outlay and debt service.

Guidelines for Developing State
Capital Outlay Support Programs

1. The state has primary responsibility for establishing and enforcing school construction standards.

2. Each state should conduct a long-range school construction planning program.

3. Final determination, within state regulations, of a school building project should be local.

4. State grants-in-aid and/or loans should be made only to school districts that have obtained state approval of school building projects.

5. Reimbursable project costs should be objectively determined, should be realistic, and should reflect variations in construction and site costs in various regions of the state.

6. The state share of capital outlay or debt service of a local district should vary inversely with the taxpaying ability of the district.

7. The measure of need for state capital outlay programs should be the approved project cost. This cost can then be converted to a per pupil or instructional unit cost for inclusion in the foundation program.

8. Credit for expenditures incurred for construction in years prior to the establishment of a state capital outlay program should be included in the measure of need used in the state program.

Footnotes

[1]Based on: Wilkerson, William R. *State Grants for Public School Construction.* Prepared for the National Capital Outlay Project. Terre Haute: Indiana State University, January 1970.

[2]Hudson, C. Gale. *State Loan Plans.* Prepared for the National Capital Outlay Project. Lincoln: University of Nebraska, January 1970.

[3]Prepublication data from the National Capital Outlay Project.

Revised Handbook II

Allan R. Lichtenberger

From all the questions I receive every week, every day, almost every hour about new Handbook II—when will it be ready and what will it look like—I am tempted to quit talking about a revised manual and, instead, to refer to the dawn of a New Age. Old Handbook II, after all, is quite a book; it represents an era. A great many people want a new representative of a new era, whether it is called *Financial Accounting for Local and State School Systems—Standard Receipt and Expenditure Accounts,* or is given some other title. For now, we are calling it Revised Handbook II.

All that old Handbook II has done is bring to school finance information the highest degree of comparability ever achieved, stimulate more improvements in school finance accounting than had occurred in the almost 100 years before it was developed and published, and anchored the State Educational Records and Reports Series which will be the basis for the development of comprehensive systems of educational information. That is all—enough to make it a candidate for nomination as the most important educational document in this century. It was published in 1957, 13 years ago, 100,000 copies ago, six printings ago, many thousands of implementations ago, and has made a difference—a significant difference—in American education.

This, then, is Handbook II, the manual now being revised. Why is it being revised? Simply because it is obsolete. It should have been revised five years ago, and again now. School finance accounting, in fact educational accounting, is moving that fast.

When will Revised Handbook II be completed? The contract was initiated last June 1969. It is to terminate in June 1970. There will then be one draft copy. It will be reproduced in a sufficient number of copies, perhaps 500, to serve as working material for regional conferences. By best estimate, printed copies will be ready early in 1971.

It is not my intention to pose as someone who knows something about the new manual that you do not know, or to be coy about Revised Handbook II. Most people involved in school finance accounting have surely foreseen that the new handbook must be multi-dimensional in structure, contrasting

sharply with the single dimension structure of old Handbook II. We have all known for a long time, too, that these dimensions cannot be limited strictly to school finance categories. Consequently, a group of school finance managers, selected at random, each one given an hour of time and working alone, would probably come up with a list of dimensions quite similar to those which are shown in the incomplete materials now being edited.

The expenditure transaction dimensions in the draft are 12 in number:

1. Fund
2. Fiscal Year
3. Instructional Organization
4. Function
5. Object
6. Source of Revenue
7. Term
8. Facility
9. Scope
10. Activity Assignment
11. Subject-Matter Area
12. Program Cost Accounting.

Inherent in the multi-dimension concept is a complexity. It is unavoidable, part of the price of essential flexibility in educational accounting. There is no point in suggesting that Revised Handbook II is a simple document. None of the dimensions, alone, is sufficient to provide complete accountability, or viable management data. In combinations and interrelated, they are capable of producing wider ranges of information than can possibly be drawn from the single dimension of the old manual and of being much more useful in every respect.

All well and good—for the school system with modern data processing equipment! There are school systems with limited data gear, or none at all—many of them. If ever specifications were made clear that Revised Handbook II must serve both data processing and manual accounting—for schools both large and small—they were made clear in the specifications for the contract to revise Handbook II. If what I can see in present working materials produced by the contractor has the quality I believe it has, the new manual *will* serve the small school systems, the school systems not equipped to do machine accounting, and will serve them very well. It is simply through identification of minimum accounting dimensions that this is accomplished.

Revised Handbook II sets forth the dimensions basic to development of comprehensive systems of educational information. The dimension called Facility, identifying an expenditure transaction with a *location* or a *place*, is clearly a linkage from the finance file to the school property file. When the school property terminology manual is revised, this linkage can be strengthened.

The dimension called Activity Assignment is a direct linkage to the staff information file. In similar manner, there is a linkage to the curriculum file through the dimension, Subject-Matter Area.

Questions will be raised as to why there is no dimension concerned with pupils. The answer is simply that there is no direct linkage between the finance and the pupil information files. Pupils are not units of strict financial accountability. Costs relating to pupils are derived by analysis. This analysis occurs through the other files, generally through Function and Program classifications. In its narrative presentation, Revised Handbook II must recognize the pupil information file as being critical in the comprehensive system of educational information, but not as a finance accounting dimension.

The Function dimension of Revised Handbook II can be expected to be considerably different from the Function category in the old manual. There will probably be three main Functions: Instruction, Supporting Services, and Community Services. Instruction is the most changed; it is limited to teaching, the daily circumstance of teacher-pupil interaction, the *direct expenses* for and *direct services* of teaching.

All other expenditures except those classified as Community Services are to be shown under Supporting Services. One business manager has observed that this is logical, but that it will cause him some problems. "When I couldn't find any other place to record an expenditure," he said, "there was always Instruction. Now, where will I charge those expenditures?"

Under each of the three main Functions there are two descending orders of detail. For example, under Supporting Services, at least now, the first descending orders are: Board of Education; General Administration; School Administration; Information Services; Instructional Media; Pupil Personnel Services; Pupil Transportation Services; Food Services; Fiscal Services; Research, Planning, Development, and Evaluation; Statistical Services; Data Processing; Staff Services; General Services; Operation and Maintenance of Plant; and Facilities Acquisition and Construction.

Just to illustrate the second descending order of detail, take Pupil Personnel Services, and under it, in addition to a management responsibility, the items are: Guidance Services, School Psychological Services, Attendance Services, Social Work Services, and Health Services. All of the first orders are open-ended.

Note that there are no Functions or Subfunctions called Fixed Charges, Capital Outlay, or Student Body Activities. These are absorbed in the Object classifications and other Functions.

Some sharply asked questions about *Source of Revenue* as an expenditure dimension are not only expected, they have been accumulating. It is not my intention to debate this point. Where school finance records are maintained on the basis of accrual accounting, and in view of the requirements attendant to categorical aid records, there seems to be agreement that the dimension is needed. There is a strong trend toward accrual-based accounting, and I presume the dimension will remain about as it is. Of course, not all expenditure transactions can be classified according to Source of Revenue.

The Program Cost Accounting dimension is not simply open-ended; it is entirely open. Clusters of activities for which accountings of costs are wanted and needed for management purposes can be established as cost centers in

this dimension. The programs or projects involved would surely be those that cut across more than one Function or orders of detail, may vary considerably from school system to school system, and are not seen as standardized. This dimension will be the most innovative contribution of the new manual, opening an avenue to management by program and objective, and conceivably a change in budgeting procedures.

Revised Handbook II does not present a design for a planning, programming, budgeting system. It is not a systems manual. The primary purpose of the new handbook is comparability and compatibility of educational information. It should be, however, a most useful device for systems development and for those who wish to move in the direction of PPBS.

I sense a kind of wait-and-see attitude concerning this first venture into contracting for the development of a handbook of standard educational terminology. Frankly, some of my own early concerns have been considerably reduced. The cooperative procedure is being preserved commendably well. Field inputs are probably greater than for any of the previously developed handbooks with the possible exception of the one on curriculum terminology. That manual has required six years of difficult work.

A responsible contractor can bring to bear on one of these terminology projects a range of expertise which our small unit cannot supply in terms of staffing, and the work can be accomplished in a shorter time.

The learning process in this project has not been a one-way street. Not all responsibility rests with the contractor. The contracting agency must have a sense of the time required to do the job well. If it does not allow enough time, responsible contracting firms will not even bid for the job. Results could then be almost disastrous.

It is incumbent on the contracting agency, too, to describe the problem well enough that the contractor cannot misunderstand the nature of the work to be done. Furthermore, the contracting agency must describe the work itself in enough detail to assure that the product is what it must be, but not in so much detail that there is no lee-way for the exercise of professional expertise on the part of the contractor.

It is wasteful, also, to go into a contract of such importance as the revision of Handbook II without having first developed and evaluated significant resource material in the form of background reports. Fortunately, backing up this contract, we have the reports of two conferences arranged and conducted by Erick L. Lindman at the University of California, Los Angeles, and a report of a study and conference by the academic research interests. These have been highly significant.

Finally, concerning the contracting procedure, monitoring is an art which needs to be learned. Without monitoring, even the most responsible contractor is at a disadvantage. One of the most vital forces in the contract work on revising Handbook II is the service of the national committee, certainly in the arena of monitorship.

There can be over-monitoring, too, leaving a contractor frustrated and virtually helpless. If the contracting agency is determined to supervise every detail and every step of the project, it does not really want or need the

services of a contracting firm, but simply some temporary help to do the chores.

In my opinion, the contractor for this project has done exceedingly well. The assigned specialists have been seasoned educators, strong in school finance competencies, and they want to stay in business.

A diary should be maintained during the life of a project such as the one on revision of Handbook II.

Many people are asking if we are doing something about mandating accrual accounting in this manual. One of the surest ways of destroying the entire handbook program would be to include even a suggestion of mandates. We cannot issue mandates, anyhow, and are not about to try.

So, what is to be done about this matter of accrual based accounting? The school finance community has adopted the accrual approach, not so much because of accountability demands, but principally to meet management requirements. As a consequence, Revised Handbook II will probably open with a list of balance sheet accounts. The list frightens me, speaking frankly, and the approach to it needs to be considerably refined and softened. In my concern, though, I have discussed this part of the manual with several school administrators. Their reactions have been revealing. They want the list of balance sheet accounts included, and they like the present placement. What this means, of course, is that both administration and school finance management have moved ahead far more than is generally recognized. School finance is committed to move toward accrual practices, and the new handbook must share in that commitment.

Many people have apparently found out that although old Handbook II is now out of print, we still have a limited supply. Requests for the manual continue to come in. A recent one, by telephone, was from a man I have known for many years. He wanted 20 copies of the old Handbook. When I began to explain that the book is being revised, he interrupted, explaining that he was not calling me about the new manual. He wanted 20 copies of the old manual, and would I please get them in the mail.

If there is a point to this incident, it is an understanding of the need for implementing the terminology and dimensions of Revised Handbook II as early as possible. Slow implementation brings on problems, and delays the benefits which are the main reason for rebuilding the manual. Furthermore, it emphasizes the importance of an across-the-board commitment to use the terminology and definitions in the revised handbook. This includes state education agencies and national agencies.

Revised Handbook II is not entirely without a plot. Its dimensions adapted to systems do tell a kind of story, the story of education in a community. What that story really is can be . .ly dramatic, or depressing, or somewhere in between. The new manual ought to tell whatever that story is.

There is always a question, too, about coding. Will the new handbook present a logical and practical system of identification numbers and codes? The answer is "yes," a requirement to be met in the contract. It is a critical requirement in view of the importance of the design for comprehensive coverage expected of the revised manual. When the national committee reviews the draft, the coding scheme will be considered with special care.

In final comments, I take the liberty to express some personal views. First, Revised Handbook II should serve as an avenue of communication from this generation to a next generation, and before many years pass, it should be *revised* to extend the communication still further.

Second, Revised Handbook II should be a dependable basis for communication among the major local and state school system efforts in process and to be initiated. It is not a document designed to serve itself, but to serve other undertakings of education at all levels, especially in their communications with each other. When people working in any promotion, any project, or any effort elect to depart from agreed-upon terminology and definitions, confusion and frustration are created all along the line.

Lastly, Revised Handbook II, as each of the other handbooks, must deal not only with standard terminology, but also, to some extent, with standards per se. It follows, then, that involvement of users is not only a good thing in any handbook development project, it is an essential. It is incumbent on all of us to think about how we can preserve and improve the cooperative procedure of standard terminology development and about how we can improve the climate of this working together which has served our needs very well. We are committed to an essential human unity and to a determination to work at a high level of excellence. These add up to a mission and to achievements of truly significant consequence.

Awards in School Finance Research

Diversification and Scale in High Schools:
A Study at the Micro Level

John D. Bowser

TODAY THE TAXPAYING public is asking questions and demanding from educators accountability for the money that is being spent for education. Educators must be ready and willing to provide a sound rationale and empirical data to justify the need for increasing costs and increasing taxes. Frequently they must also consider the manner in which funds are to be allocated. Certain opportunities to change the educational program in one area may have to be foregone to change the program in another area. Yet another decision may be necessary if an attempt is made to "hold down" costs; that is, whether or not to reallocate funds from existing programs to add programs in other areas. In all cases, the cost of the particular components of the educational program is an important factor in determining the best possible program. Therefore, unit cost analysis should greatly assist educators in making better decisions on changing and improving the educational program.

The decisions involving changes in program and the costs associated with these changes involve another dimension, however, and that is scale. The effects of school size upon the educational program and the costs of the program must be considered in many instances before additional funds are appropriated by state and local agencies. School district reorganization and consolidation frequently raise problems of the costs of different levels of quality of possible educational programs associated with schools of differing sizes. Also, within districts many problems of community growth and ethnic and socioeconomic changes face educators as they plan the educational program of the schools. School size and the costs and benefits associated with size also must receive serious consideration in this planning.

Hence, if educators are to make the best decisions with respect to implementing, operating, and evaluating educational programs, they must perform some type of cost-benefit analysis. This analysis may not be highly structured, but even at a relatively unsophisticated level, it should provide meaningful information to the decision makers.

Nature of the Study

This exploratory study was stimulated by the question of whether a given educational program may be provided more economically in large

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schools than in small schools. Other research, most of which has been conducted at the aggregate or macro level, has failed to answer this question conclusively. This study, therefore, examined the size of high schools, the breadth and depth of the educational programs, and the cost of the components of these programs at the micro level. It addressed itself to this primary question: What variables characteristic of secondary schools are related to economy of scale?

To examine this question, the writer developed a production function[1] which relates the outputs, defined here as those services provided by the school for the educational benefit of the pupils, to inputs which include the personnel, space, equipment, and supplies required to provide the services, the costs of which are expressed on a per-pupil-per-day basis.

Applications of the theory of economies of scale to education are quite recent. Research studies reveal inconclusive or conflicting evidence as to the existence of economy of scale in education, for most of them examined total expenditures per pupil and some quantitative measure of the breadth and depth of the educational program as they relate to size. Also, the studies considered schools as one-product firms, that one product being pupils educated to a given level; instead it may be more realistic to consider schools as producing multiple products, defined as educational services.

The sample of schools in this study was too small to determine the central tendency and variance of the cost curves of an entire population of schools. However, for a small number of schools an attempt was made to identify and describe the educational program changes and cost trends as school size increases. To determine these changes and trends, 1964-65 cost and curricular data were collected from two sets of four high schools each, in high school districts in Illinois. The enrollments of these schools ranged from approximately 700 to 2,700 pupils. The schools in one set had net operating expense below the state average per pupil and the other set ranged above.

Cost evaluation procedures developed within the study were utilized to process the financial data. These procedures were applied in the analyses of costs for courses, for subject fields, and for schools as a whole. Linear regression and correlation techniques were utilized to establish the significance of relationships among scale, program diversification, and cost variables.

Certain key definitions were formulated. Costs, viewed as what must be given up in choosing a commodity, service, or activity, is defined for the purposes of the data analysis to include those expenditures necessary for the operation of the school plus the implicit costs for depreciation and interest on capital outlay. Service mix refers to the combination of services necessary to achieve the goals of the schools. Changes in the service mix occur in two ways: (a) by replication, and (b) by diversification. Replication refers to an increase in the number of units of a specific output, and diversification refers to changes in the service mix that take the form of ability grouping, an increase in variety of services, and an increase in the scope of the service mix.

Findings

As one might suspect, average class size is the most significant variable in the determination of per-pupil costs courses offered in the educational

programs. The data analyses reveal strong relationships between average class size and average daily attendance (r = .83); between average class size and the average cost of all courses ($r^2 = .59$); and between average class size and the total cost per pupil per day for all subject fields ($r^2 = .65$). Language arts, mathematics, home economics, and physical education are just some of the examples of subject fields.

Variations in average salaries of teachers, both among subject fields and among schools within fields, seem to have little influence upon the differences in per-pupil costs between fields and between service mixes. Also, the presence or absence of expensive facilities and equipment seems to have only a limited effect upon the cost of courses within particular fields. A more important determinant is the degree of utilization of the facilities and equipment.

As school size increases, replication, which refers to an increase in the number of classes per course offered in the educational program, was also studied. Replication ratios developed from the data reveal that large schools tend to have greater replication of courses than small schools. The range is from 2.1:1 for the smallest school to 4.6:1 for the largest school. In the small schools, however, most of the courses which comprise the service mix are required for graduation; hence, there is a "fixed" demand for these courses. Replication is therefore the major form of educational program expansion in the small schools. But because of larger enrollment and the greater total demand for all the courses, the rate of replication within the large schools is still greater than in the small schools.

An increase in the variety of courses in many fields is apparent as school size increases. A sharp increase in the number of courses between the smallest school in each set (enrollment approximately 700) and the three larger schools (enrollments of 1,400-2,700) is observed. The increase in variety of courses seems prevalent in most fields, except that the form in which the variety occurs varies from field to field. Ability grouping seems to be more prevalent in those fields that contain several required courses. New courses are added in many fields, especially in those fields, such as foreign language, business, industrial arts, and music, in which few courses are required for graduation.

As diversification increases, the cost of the courses added to the educational program are in general higher than the cost of the existing courses. As school size increases, new courses are added in most fields and ability grouping occurs in several fields; and for most of these courses, the cost per pupil is higher than the average cost of the particular field in which the course is found. The higher costs seem to be attributable to a smaller average class size than is found in the existing courses within the subject field. Some of the new courses, which are frequently offered at advanced levels, tend to have smaller classes partly because educators believe such small classes are necessary if effective instruction is to occur. On the other hand, the primary reason for small average class size in most of the new courses seems to be that the demand for the new courses is limited, at least at the beginning of the operation of the course.

Few economies of scale appear within the particular courses examined in this study. If the sample had included more schools in a broader range of

180

size, the error variance in the cost factors (personnel, space, equipment, and supplies) might have diminished, permitting the emergence of more consistent cost patterns. On the other hand, significant economies of scale appear in the relationship between average daily attendance and the per-day cost of a given set of courses in which the average pupil may enroll.

In summary, an increase in diversification within the educational programs appears as school size increases, and the costs of the new courses or services are in general higher than the costs of courses that have been a part of the educational program. At the same time, replication of existing courses as well as of the new courses seems to be occurring at a faster rate than diversification as school size increases. Consequently, economies of scale resulting from replication are apparently offsetting the increasing costs of diversification so that some economies of scale appear within the subject fields as a group.

Implications

The impact of such a study as this may possibly not be found in its contributions to the question of whether economies of scale are present in schools or in other areas of educational endeavor, but rather to its method of approaching the question. Rather than look at the total cost picture for a set of given schools, this study disaggregated these costs and examined the cost variables within the curricular offerings. Its principal value may rest, therefore, in providing a means for administrators to weigh alternatives of educational programs rather than to evaluate individual programs in isolation.

The disaggregation of costs provides several advantages. The cost of providing certain specific courses can be compared within a school as well as among schools of different sizes. Also, a cost component, such as personnel, can be compared with other components, such as space or equipment, within a given course or service. The availability of these unit costs provides the opportunity for educators to make comparisons between the costs of alternative educational programs. In other words, the total cost of certain programs, some containing more diversification than others, can be compared. If, at the same time, possible educational benefits of each alternative educational program can be determined, the decision maker can select the program that offers the most favorable balance between benefits and costs.

Footnote

[1]Adapted from: Kiesling, Herbert J. *High School Size and Cost Factors.* Washington, D. C.: U. S. Department of Health, Education, and Welfare, Office of Education, March 1968. p. 2.

Kiesling defines a production function as a set of causal relationships between outputs of a process and the various combinations of inputs.

A Nonschool Public Services Burden Correction Factor for Use in a State Equalization Formula for Education

Alan R. Cullum

IT IS GENERALLY RECOGNIZED that densely populated communities provide a greater number of public services to their citizenry than is provided in communities,with a smaller population. The greater costs of these services is partially offset by the greater per-capita wealth in the larger communities. But the balance of the increased costs must be met by higher taxation or, all too frequently, by diverting tax dollars from education to these services.

Within the past decade educational finance experts and legislators have become increasingly concerned with the adverse effect of diverting of tax dollars from education to other public services. Although many authorities have expressed concern about this problem, few objective steps have been taken to alleviate the situation.

The purpose of this study was to consider the feasibility of devising a factor to correct for the decreases in ability to finance educational programs in Tennessee counties that have had a relatively high nonschool public services burden. Within the counties elements were identified that could be utilized in conjunction with the existing educational equalization formula.

From these elements a factor F was derived which could be used in conjunction with the general state equalization formula[1] for the minimum foundation program causing it to become:

Ca · Rv(F) = state school support

Where C was the amount per pupil to be guaranteed by the state for all school districts participating in the minimum foundation program

a was the number of pupils attending the public schools in the county

R was the pertinent local tax rate(s) required in all local school districts to provide the local share of guaranteed amount per pupil

v was the assessed valuation of taxable property in the school district, true valuation, economic index, or some other measurement of wealth.

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The procedures used to derive the factor F were as follows: The actual nonschool public services burden was defined as:

$$\frac{\text{Total nonschool local sales and property tax levies}}{\text{Average expected local sales and property taxes}}$$

The denominator was the rate of yield of local sales taxes in counties that had such a tax (.0084) times the county's total retail sales added to the product of the state-wide average net effective property tax rate (.0162) times the county's total estimated true property valuation.

Since this measure of actual services burden was subject to manipulation, an indirect measure of services burden had to be found to provide a workable system. To accomplish this, 18 independent variables were correlated to the actual services burdens of the various counties by step-wise multiple regression.

These were:

X_1 The percentage of the state's total average daily attendance that resides within the county

X_2 The percentage of the state's total population that resides within the county

X_3 The logarithm of the population of the county

X_4 The logarithm of the average daily attendance within the county

X_5 The rate of population change of the county from 1950 to 1960 expressed as a T-Score

X_6 The rate of the average daily attendance change of the county from 1957 through 1966 expressed as a T-Score

X_7 The area of the county in square miles

X_8 The unemployment rate of the county

X_9 The percentage of households in the county with an annual cash income of $2,999 or less

X_{10} The estimated total true property valuation of the county in millions of dollars

X_{11} The total retail sales of the county in millions of dollars

X_{12} The effective buying income of the county in millions of dollars

X_{13} Per-capita income

X_{14} Per-capita local sales and property taxes

X_{15} The county's percent of the state's urban population

X_{16} Density of population

X_{17} Total local sales and property tax levies

X_{18} Per-capita estimated true property valuation

In the formula for the prediction of the services burden (Y) eight variables were found to be significant at the .05 level, as may be seen in the final prediction formula:

$$Y = -35.67119 + (-22.16209)\ (X_2) + 22.56786(X_3) + \\ (-.28961)\ (X_6) + (-.31864)\ (X_{11}) + .83383(X_{14}) + \\ 8.43471(X_{15}) + .00618(X_{17}) + (-.00795)\ (X_{18})$$

From this calculation the F factor was derived using the following formula:

$$F = \frac{\text{Predicted state mean services burden}}{\text{Predicted county's services burden}}$$

This F factor was inserted into the general state equalization formula described previously.

Findings

Statistically speaking, the findings were quite significant. The prediction formula was significant at the .05 level of significance. The standard error of Y was revealed to be 6.11988. A multiple regression of Y to the significant independent variables was .917302.

When the F factor was applied to the general state equalization formula, it was found that 41 counties would be required to contribute less to the minimum foundation program. The decreases ranged from a low of $132 in Fentress County to a high of $1,553,190 in Davidson County, with Shelby County a close second with a $1,530,759 decrease. Among the counties which would be required to pay more, the range was from a low of $522 in Wayne County to a high of $222,983 in Washington County.

Conclusions

1. The services burden in Tennessee lends itself well to analysis by multivariant techniques.
2. The urban population relationships among the counties were not more significant than were the over-all population ones.
3. In Tennessee the counties with a population over 125,000 had above average services burdens. Counties with a population between 40,000 and 125,000 consistently had a services burden below the state average.
4. The county's average daily attendance as a percentage of the state total was not found to be significant.
5. Any state attempting to correct for services burdens through its equalization formula can adapt the procedures outlined in this study.

Recommendations

1. The formula should be utilized to effect both increases and decreases in the required county contributions to the minimum.
2. The salability of this formula to state legislators or other state fiscal officials may be increased by the insertion of some predetermined fraction. If, for example, the acceptable effect was determined to be only one-half of the originally computed one under this formula, each increase or decrease required under this formula would be reduced by one-half.

This formula claims neither perfection nor total equitability. But it does offer a degree of objectivity which is likely to be lacking if the state legislators do not use some similar approach to the relief of public services burdens in financially distressed population centers.

Footnote

[1]Adapted from: Lindman, Erick L. "School Support and Municipal Government Costs."
Long-Range Planning in School Finance. Proceedings of the Sixth National School
Finance Conference. Washington, D. C.: National Education Association, 1963. p. 133.

Kentucky State Aid and the Educationally
Disadvantaged Child

M. David Alexander

THE UNDERDEVELOPMENT OF certain segments of society has been brought to the forefront of public attention in the past two decades. This has been due largely to a combination of social, economic, and political factors. Although Americans have been aware of economic and social disparities which have existed universally, nowhere have these events caused so much concern as in the United States in the second half of the twentieth century.

Education today is faced with the underdevelopment of human resources that make for social disadvantage and economic deprivation. These problems that affect large numbers of children in many communities offer the greatest single challenge to existing arrangements for state structuring and financing of education. The allocation of state money for public education may not offer equality of educational opportunity unless the needs of compensatory education are recognized.

The purpose of this study was to investigate the effectiveness of the Kentucky Foundation Program in meeting the needs of educationally disadvantaged children and to select social and economic factors that might better identify these children.

The 13 selected factors were obtained from other studies and from consultation with experts. The factors used were:

1. *Foundation program allotments per pupil:* The dollar measure of state support plus the amount of local support required for participation in the foundation program

2. *Achievement scores:* A measure of important knowledge, skills, and understanding commonly accepted as desirable outcomes of the major branches of the curriculum

3. *Pupil-teacher ratio:* The average number of pupils per class whom individual teachers will instruct daily

4. *School holding power:* Percent of ninth-graders who graduate from secondary school

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5. *Median grade level of the community:* The author use definition of the U. S. Bureau of the Census which is the median level of schooling achieved by citizens of a census unit who are 25 years old or older

6. *Title I children:* The total number of children eligible under Public Law 89-10 (ESEA 1965), Title 1, divided by the school census for each particular district

7. *Current expenditures per pupil:* The amount of money spent per year per pupil for all current expenses, including administration, instruction, attendance, health services, pupil transportation, operation and maintenance of plant, fixed charges, and community services

8. *Personal income per capita:* The total personal income of the district divided by the population of the district

9. *Percent of attendance:* The average daily attendance (ADA) divided by the total membership of a given school district for the period of one school year

10. *Enrichment expenditure:* The amount spent by a local district above the amount needed to participate in the foundation program

11. *Average teachers' salaries:* The total salaries of all teachers in a district divided by the number of teachers

12. *Assessed valuation per pupil:* The assessed valuation of property divided by the number of pupils in average daily attendance for selected Kentucky school systems

13. *State allotments per pupil:* The dollar measure of state support per pupil in average daily attendance for school purposes.

A multiple correlation analysis was computed to determine the factors that correlated highly with foundation program allotments per pupil, Title I children, and achievement scores. Through this analysis it was possible to tell if districts with a higher incidence of educationally disadvantaged children were receiving proportionately higher amounts of foundation money, and, also, to see what factors correlated highly with Title I children, and achievement scores

Three statistical analyses were presented in this study. These were zero-order correlation (the extent of the relationship between two variables), the coefficient of multiple correlation (the strengths of relationships between one dependent variable and two or more independent variables when taken together), and the square of the coefficients of multiple determination (does not imply causation, but merely defines a degree of covariation).

Findings

1. *Foundation program allotments per pupil (dependent variable):* The foundation program allotments per pupil when correlated with the selected factors showed three of these factors significant at the fourth-, eighth-, and eleventh-grade levels of achievement. These factors were pupil-teacher ratio, current expenditures per pupil, and Title I children. All of these factors had a statistical significance equal to or greater than the .05 level of confidence.

The pupil-teacher ratio factor correlated negatively with the dependent variable while the factors, current expenditures per pupil and Title I children,

both correlated positively with the dependent variable, foundation program allotments per pupil.

The coefficient of multiple correlation for the relationship between foundation program allotments per pupil and selected factors ranged between .7635 and .8135 with the lower figure having fourth-grade achievement scores as an independent variable and the upper figure having eleventh-grade achievement scores as an independent variable. Application of the F-test for statistical significance showed that these results were significant.

The coefficient of multiple determination, therefore, was significant and accounted for 58 to 66 percent of the variance in the foundation program allotments per pupil, depending on which grade level of achievement scores was used as an independent variable.

2. *Title I children (dependent variable):* When Title I children was used as a dependent variable, 9 of the 12 selected factors were found to be significant. These nine factors were common to all three statistical analyses using fourth-, eighth- and eleventh-grade achievement scores. These factors were achievement scores, average teachers' salaries, assessed valuation per pupil, state allotments per pupil, personal income per capita, enrichment expenditures, median grade level of the community, school holding power, foundation program allotments per pupil, and percent of attendance. All of these factors had a statistical significance equal to or greater than the .05 level of confidence. On all the analyses, Title I children correlated higher with state allotments per pupil (.731, .755, .774) than with foundation program allotments (.335, .353, .439).

The following factors correlated negatively with the dependent variable: achievement scores, average teachers' salaries, assessed valuation per pupil, personal income per capita, enrichment expenditures, median grade level of the community, school holding power, percent of attendance. The factors, state allotments per pupil and foundation program allotments per pupil, correlated positively with the dependent variable.

The coefficient of multiple correlation between Title I children and the selected factors in combination had a range of .8730 to .8768. Application of the F-test for statistical significance showed that these results were significant.

The coefficient of multiple determination, therefore, was significant and accounted for 76 to 77 percent of the variance in Title I children, depending on which grade level of achievement scores was used as the independent variable.

3. *Achievement scores (dependent variable):* When achievement test scores were correlated with all selected factors, three factors were common to all three simple correlations. These factors were assessed valuation per pupil, state allotments per pupil, and Title I children. All of these factors had a statistical significance equal to or greater than the .05 level of confidence.

Achievement scores correlated slightly higher with state allotments per pupil than with Title I children.

The factors, state allotments per pupil and Title I children, correlated negatively with the dependent variable while assessed valuation per pupil correlated positively.

The coefficient of multiple correlation between achievement scores and the combination of selected factors had a range from .6261 to .7285. Application of the F-test for statistical significance indicated that these results were significant.

The coefficient of multiple determination accounted for 39 to 53 percent of the variance in achievement scores when the selected factors were correlated

4. *General findings:* These findings were observed within the analysis of data but did not exist on a one-to-one relationship with the basic design. (a) There was no significant relationship between achievement scores and teacher-pupil ratio. The simple correlations for these two factors in all three segments of the study were .132, .180, and -.045; these were not statistically significant. (b) Educationally disadvantaged children correlated higher with fourth-grade achievement scores than with eight-, or eleventh-grade achievement scores. All three levels of achievement scores significantly correlated with educationally disadvantaged children, but fourth-grade achievement scores had a correlation coefficient of -0.516 while eighth-grade and eleventh-grade achievement scores had correlation coefficients of -.296 and -.478, respectively.

Conclusions

1. State allotments per pupil identify educational disadvantaged children as well as or better than Title 1 children when measured against achievement scores.

2. The present state allotments have a greater equalizing effect than does the foundation program. The state allotments per pupil correlated higher with Title 1 children than foundation program allotments per pupil. Although the foundation program did correlate significantly with educationally disadvantaged children, it had a tendency to negate some of the equalization of state allotments when local money was added to the foundation program.

3. Achievement test scores appear to be a good method of identifying districts with a high degree of educationally disadvantaged children in Kentucky. Of the three achievement levels used in this study, fourth-grade achievement scores appear to be a better means of identifying concentrations of educationally disadvantaged children than do eighth-grade or eleventh-grade achievement scores. Fourth-grade achievement scores correlated higher with educationally disadvantaged children than did eighth- or eleventh-grade achievement scores.

4. The other factors selected for this study did not appear to be of sufficient importance to increase the validity of achievement scores in identifying concentration of educationally disadvantaged.

Recommendations

1. The state portion of the foundation program allotments per pupil should be increased to provide additional support for districts with a high incidence of children with low achievement.

189

2. Certain factors presented in this study were statistically significant, but further research should be conducted to identify sociological factors related to concentrations of educationally disadvantaged children. A study could be made to identify factors that might have a higher correlation than those presented in this study.

3. Studies should be done in other states to see if state support programs are meeting the needs of educationally disadvantaged children as measured by achievement scores.

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