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ABSTRACT

The project described in this paper was designed to test specific ways of improving the dissemination of school finance information in two big city school districts (St. Louis and Kansas City, Missouri), in order to enable them to compete more effectively for State aid. Part I presents the political and fiscal environment in which Kansas City and St. Louis lobby for increased State education aid. Part II contains the project history: a chronology of collaborative activities carried on by two cities and by the Education Policy Research Institute, and an overview of the products that emerged from their collaboration. Part III assesses the impact of the project on changing the capacity of the two school districts to lobby more successfully for State school aid and on their ability to work more collaboratively with each other and with other school districts on this issue. Part IV outlines the components of an urban educator's handbook on state school finance policy processes. Attached to the report are (1) a 26-page paper on the Missouri School Finance Formula; (2) a dissemination conference outline; (3) information on Missouri's general data file layout; (4) an overview of and sample output from the School Finance Equalization Management System (SFEMS); (5) tables of contents for SFEMS manuals, and a training agenda; and (6) a 22-page paper on measuring school districts fiscal capacity. (CMG)

DISSEMINATION OF SCHOOL FINANCE SERVICES IN URBAN SCHOOL DISTRICTS

FINAL REPORT

N.I.E. Contract No. 400-81-0009

Submitted to National Institute of Education

by

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Table of Contents

Attachments

Table of Contents (cont'd)

Page

DISSEMINATION OF SCHOOL FINANCE SERVICES IN URBAN SCHOOL DISTRICTS

FINAL REPORT

Purpose of the Project

Like many of their suburban and rural counterparts, big city school systems are finding their financial fortunes increasingly determined by state legislatures. In 1981-82, fifty percent of local school district revenues came from state sources; the corresponding figure was 40 percent ten years ago. As cutbacks in federal education aid programs grow larger, the nation's large cities will desperately need even more state assistance. Yet, most large city school districts are not well-equipped to process or disseminate the crucial financial information on which to base an effective case at the state capitol. Often they are hampered by three institutional weaknesses: (1) lack of practical experience in the state policy process; (2) limited staff expertise on school finance issues; and (3) inadequate tools for identifying school districts with similar financial interests.

This project was designed to test specific ways of improving the dissemination of school finance information in big city school districts. The Education Policy Research Institute (EPRI), working collaboratively with the center city school districts of St. Louis and Kansas City, Missouri, planned and conducted a series of practical exercises designed to enhance the capacity of these two school systems to compete more effectively for state education resources. This Final Report summarizes the substance of the exercises and evaluates the success of these activities. It is divided into four parts.

Part I presents the political and fiscal environment in which Kansas City and St. Louis lobby for increased state education aid. Part II contains the project history: a chronology of activities carried on by all three participants and an overview of the products that emerged from these collaborations. Part III assesses the impact of the project on changing (1) the capacity of the two large city school districts to lobby more successfully for state school aid and (2) their ability to work collaboratively with each other and with other school districts on this issue. Part IV outlines the components of an urban educator's handbook on state school finance policy processes.

Part I: The Environment of Missouri School Finance Policymaking

Missouri is a socially, politically and fiscally conservative state. A now forgotten Congressman, William Vandiver, declared in 1889: "Frothy eloquence neither convinces nor satisfies me. I am from Missouri. You have to show me." Today the Random House dictionary even includes a definition of the phrase "from Missouri;" it means: "unwilling to accept without proof, skeptical."[1] Although the state has two major metropolises within its borders, the state capitol and governor's mansion in Jefferson City have generally been controlled by rural and small-city legislators and by governors who place somewhat between moderate and conservative on an ideological scale.

Political Environment

Missouri is currently governed by a Republican, second-term (and lame-duck) Governor, Kit Bond, and a Democratically-controlled legislature. Bond

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[1]Neil Peirce, The Great Plains States (New York: W.W. Norton and Company, 1973), p. 34.

has taken a strong anti-tax increase stance, preferring to "tighten the State's belt" and collect unpaid taxes due the inefficient Department of Revenue. The governor's stand will run into little opposition on either side of the aisle in the General Assembly. The Senate, historically much more conservative than the conservative House of Representatives, usually rejects taxes that (a) would hurt business, (b) would hurt banks or farmers or (c) would be used to create new programs and services.

Missouri has a diverse social and economic composition. Its two largest cities, St. Louis and Kansas City, have the usual litany of urban ills: declining tax bases, large minority populations (the St. Louis public schools have a 79 percent minority enrollment while those in Kansas City have a 73 percent minority population), and the higher costs of maintaining an aging infrastructure and of supporting an aging and impoverished population. A large gulf exists between these two metropolitan areas and the rest of Missouri that is characterized by small sized cities and rural populations.

Most political battles in Jefferson City are fought along these rural/urban lines. A dispute over the distribution of new state education revenues in the 1981-82 legislative session is an example. The House favored the inclusion of two factors in the formula that would direct more aid to the cities and their suburbs: a cost-of-education index and an adjustment for declining enrollment. The rurally-dominated Senate, however, was strongly opposed to these changes. This deadlock almost doomed chances for the increase in the cigarette tax which was earmarked for education; a similar

"Mexican standoff" killed a proposed half-cent sales tax for education the previous year. The ongoing desegregation litigation in St. Louis has aggravated the urban/rural tensions. The federal court recently ordered Missouri to pay one-half the cost of intra-city integration programs in St. Louis with the check to be drawn directly from the state treasury. Several members of the legislature responded to this action by introducing anti-busing amendments to school aid legislation in the 1982 session.

Fiscal Environment

The social and political conservatism of Missouri is reflected in its fiscal policies. Among the 50 states, Missouri ranks 46th in state tax effort, 47th in per capita state expenditures for education and 50th in per capita state expenditures on all functions.[2] Average teacher salaries are low, with a rank of 37th nationally, and the current expenditure per pupil (ADA) of $2101 in 1980-81 is 32nd in the nation.[3] These facts have become the focus of efforts by education interest groups and, most recently, the State Board of Education to generate more state tax revenues in support of the Foundation Aid program.

Facing the double whammy of federal cutbacks and a stagnant economy, state legislators limited the growth in the major state education aid programs to 3.5 percent a year in fiscal 1981 and 1982. The legislature passed a fiscal year 1983 budget which increased state expenditures by a mere 2.5 percent. Few new programs were funded and state employees received only token

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[2]National Education Association, Rankings of the States, 1981 (Washington, D.C.: NEA, 1981).

[3]Ibid.

pay raises. Proposals by the House Speaker to increase a variety of tax rates to bail out the State from its fiscal problems and to make the state tax system more equitable failed due to opposition from the Governor and the Senate President. Only two tax increases were passed: a four-cent increase in the state cigarette tax dedicated to education, and a four-cent increase in the state gasoline tax. Proceeds from the increase in the cigarette tax rate, coupled with a small increased allocation from general state revenues, will raise state education aid by seven percent in FY 1983.

Structure of State Aid to Education

In 1980-81, Missouri's school districts derived 10.1 percent of their support from the federal government, 36.9 percent from state funds, and the remaining 53.0 percent from local revenues. The local share has decreased by five percentage points since the mid-1970's, in part the result of a reform formula which was implemented in 1977-78 and in part due to growth in federal aid.

Nearly three-quarters of Missouri's education aid is allocated through a Basic Grant Program. The Basic Grant Program consists of two formulas: the Minimum Guarantee Program and the Guaranteed Tax Base Add-on Program. At least 75 percent of the basic grant program must be spent for teachers' salaries during the year in which aid is received.

The Foundation level is set at 75 percent of the state average current expenditure per pupil for the second preceding year. Pupils are given an additional 0.25 weighting if they are orphans or live in families receiving Aid with Dependent Children (AFDC). The required tax rate, 57 percent of

the state pupil-weighted levy for the second preceding year, is applied to property valuation per pupil. This tax rate is adjusted by each district's relative income per return. Thus, those districts with below average incomes will have a lower required tax rate than those with average or above average incomes.

The Guaranteed Tax Base Add-on program (GTB) applies to all districts which levy a school tax rate above the required rate, and that have a property valuation per pupil at or below the 88th percentile wealth.

Exceptional Pupil Aid (Special Education) represents 8.8 percent of total state aid. These funds are allocated on the basis of approved special education classroom units, ranging from $7,425 to $9,784. The reimbursement rate is adjusted annually to reflect changes in the legislative appropriation. This aid must be spent on staff salaries. The appropriation process lumps Basic Grant Aid, Special Education and Transportation aid together. Special education and transportation aid are taken "off the top" of each year's allocation; the remaining Basic Grant funds are then prorated downward.

Table 1 shows the allocations for these three programs over the last seven years. Three trends emerge. First, while total appropriations grew at a rate of 12 percent a year between 1976-77 and 1980-81, in the last two years, the fiscal crisis has limited this growth to 3.5 percent a year. Second, transportation funding has been drawing off money from other programs over the last six years, with its share of the foundation program appropriation growing from 6.6 to 10.5 percent. Special education's share of the fund has

Table 1

Appropriations for Foundation Program (in millions) and Percent of Total

Year	Total Approp.	Special Education	Transportation Aid	Basic Grant
1976-77	$ 428.8	36.2 (8.4%)	28.4 (6.6%)	364.2 (85.0%)
1977-78	480.8	42.0 (8.7%)	41.1 (8.5%)	397.7 (82.7%)
1978-79	526.8	50.2 (9.5%)	46.1 (8.8%)	430.5 (81.7%)
1979-80	593.6	57.2 (9.6%)	53.7 (9.0%)	482.7 (81.3%)
1980-81	683.6	66.6 (9.7%)	66.0 (9.7%)	551.0 (80.6%)
1981-82	707.6	70.2 (9.9%)	74.5 (10.5%)	562.9 (79.6%)
1982-83 (Estimated)	759.6			

grown slightly from 8.4 to 10 percent. Third, as a result, the Basic Grant program currently garners 80 percent of the Foundation Program, down from 85 percent in the mid-1970's. Coupled with the slowed increase in total appropriations, growth in Basic Grant funds has been miniscule.

St. Louis and Kansas City receive considerably different amounts of aid under the Basic Grant formula. For purposes of computing state equalization aid, Kansas City is a wealthy district; its per pupil property valuation was $50,459 in 1979-80, a figure that was 169 percent of the state average. St. Louis' property valuation, on the other hand, was $28,931, a value slightly below the average. As a result, Kansas City received only $14.6 million in Basic Grant aid in 1980-81, or $417 per pupil, compared to St. Louis' receipt

of $55.4 million, or $984 per pupil. Even when all other state aids are included, Kansas City received only 25.2 percent of its education revenues from the state, while St. Louis received 46.9 percent of education dollars from this source.[4]

Part II: Project History

The project contract was let in January 1981, at the beginning of the state's legislative session and after the deadline for introducing new bills. Therefore the calendar of activities was arranged so that the simulation capability and "options" paper would be available in time to develop new proposals for the 1982 legislative session.

Organizational meetings were held separately in St. Louis and Kansas City on February 5 and 6, 1981. Project participants arrived at a consensus on four major activities for the project and on a structure for administering the project. The activities identified were:

(1) Identifying the specific training and simulation needs of the St. Louis and Kansas City school districts, and identifying state school finance issues that are of greatest concern to the two districts;

(2) developing training materials and providing training sessions on the operation and impact of the Missouri state aid formula on the state's largest cities, related urban school finance issues, and the development and evaluation of alternative state school finance programs;

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[4]Missouri State Board of Education, 1980-81 Report of the Public Schools, LEA Tables 1, 2, 4.

(3) conducting a feasibility study of the implementation of a school finance simulation model in the participating school districts, and, where possible, testing computer software and data bases and training staff in the use of these software; and

(4) preparing a series of brief memoranda for the collaborating school districts summarizing state-of-the-art knowledge about selected issues in urban school finance and other issues as identified by the two districts.

The governance structure is shown in Figure 1. Margaret Goertz was responsible for coordinating activities among EPRI, the St. Louis Public Schools and the Kansas City Public Schools. William Pearson and Gerald Moeller oversaw project activities in the St. Louis and Kansas City School Districts respectively, in direct consultation with the district superintendents.

Since the project was initiated in the middle of the two districts' budget seasons, it was difficult to convene a meeting of superintendents and their staff in the spring to discuss school finance issues. Project staff prefered to focus on school finance training activities and the testing of software and data base systems in the spring and summer of 1981, leaving a detailed discussion of their common school finance problems and legislative programs for the 1982 session for an October 1981 meeting.

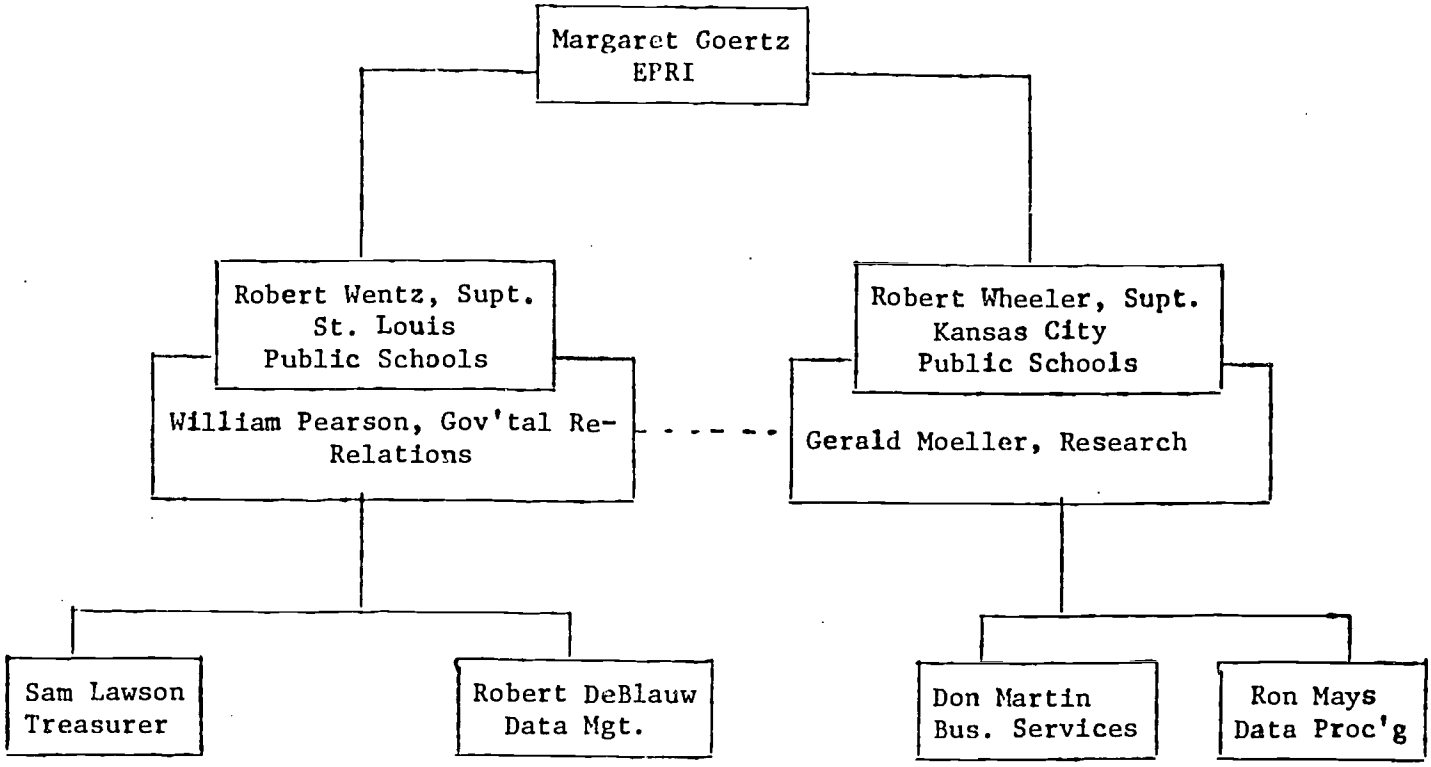
School Finance Training Activities

During the spring of 1981, EPRI staff developed a guidebook which describes the operation of the current Missouri state education aid formula. (See Attachment A.) This guidebook was used along with a previous NIE publication, Plain Talk About School Finance, in training sessions conducted in St. Louis and Kansas City on May 21 and 22, 1981. These materials were

Figure 1

Proposed Organization Chart

Dissemination of School Finance Services in
Urban School Districts



also available for distribution to other interested parties by the staff of both districts. The training sessions covered the operation and impact of the current Missouri education aid formula and alternative formula provisions which meet specific urban school finance problems. Attachment B presents the agendas for these two meetings. State legislators representing each of the cities, members of the district school boards, and school district office staff were invited to these sessions. Participants at the Kansas City training session also included representatives of interested citizen groups, such as the Junior League and Kansas City Today.

Developing Computerized Simulation Capabilities

EPRI staff conducted initial assessments of the computer capacities of each of the school districts in spring 1981. EPRI's software package, the School Finance Equalization Management System (SFEMS), could provide the necessary simulation and analytic capability if the program were compatible with St. Louis Public School and the Kansas City Public School computer systems. It was found that the computer in St. Louis could run the SFEMS program without any problems. The computer system in Kansas City at that time was unable to run SFEMS without major difficulties. As that district was in the process of obtaining a larger, more modern system, EPRI did not look for alternative simulation programs to fit their old computer.

Between June 1, 1981 and October 1, 1981, EPRI completed three more tasks in the development of a computerized simulation capability in the St. Louis and Kansas City school districts. First, with the assistance of the Missouri State Department of Education, EPRI compiled a set of school finance

data for all districts in the state, including those elements used to compute the current state aid formula (1979-80 wealth, tax rates and pupil counts) and education aid payments for the 1980-81 school year. This information is required to simulate the existing state education aid formula and alternative aid formulas, and to compare the impact of alternative plans against current distribution of aid. A copy of this data base is contained in Attachment C.

Second, changes were made to EPRI's software package SFEMS so that it could replicate the current Missouri education funding system. Attachment D shows sample output from a simulation of the Missouri formula, including the steps required to run the simulation, detailed reports for Kansas City and St. Louis, a per pupil report sequencing all districts by per pupil property valuation, and a report with district aggregate figures listed by district code. Each report compares the 1979-80 basic aid allocation with 1980-81 aid payments, and summarizes the number of districts gaining or losing aid. Also included is a description of the SFEMS.

Finally, much of September was spent identifying key school district personnel who would utilize the computer software package and developing materials to be used in the training of these staff.

In October 1981, SFEMS was installed in the St. Louis Public Schools; staff were trained in its use on October 22 and 23, 1981. Attachment E contains the agendas for the St. Louis training session and the tables of contents for the "policy users" and "technical users" materials.* Kansas

*Because of the bulkiness of these materials they could not be included as an attachment to this report. One complete copy was submitted to the Project monitor with the Final Report.

City Public Schools installed an IBM 4341 computer in January 1982. This machine gave the district the storage capacity to run SFEMS, but the district did not have the FORTRAN compiler needed to process the program. In late May the district looked at a number of alternative ways of overcoming this problem, and ultimately asked their IBM representative to have the program compiled for them. A training session was scheduled in Kansas City for August 24 and 25, 1982, but cancelled by the district at the last minute for two reasons: (1) the key personnel involved in this project left the district's central offices in mid-August, leaving no staff with the interest or knowledge in school finance issues to use the computer system and (2) the program was not compiled by IBM and district data processing personnel were at a loss as to how to run the system on their computer.

Identifying Common School Finance Issues

On October 23, 1981 the staff of the collaborating school districts met with the project director in Columbia, Missouri to (1) review current state legislative activity in the areas of school finance and state taxation; (2) review the proposed legislative packages of the St. Louis and Kansas City school districts; (3) discuss topics for state-of-the-art papers; and (4) generate specific proposals which could be tested on the computer simulation model and which might lead to joint support of proposals for the 1982 legislative session. The participants included deputy and assistant superintendents, financial officers, and lobbyists from both school systems.

A review of the districts' proposed legislative packages revealed some common interests and some that were unique to the needs of each city. The common interests were (1) increased state aid to education; in particular,

support of legislation introduced by Rep. Gary Sharpe that would incorporate a cost-of-living index and declining enrollment factor into the equalization aid formula; (2) liberalizing the requirements for voter approval of local school levies; (3) increasing local home rule (e.g., giving school districts authority to levy new, additional taxes); and (4) grandfathering the current AFDC count used in the equalization aid formula. The specific concerns were:

Kansas City

- Developing urban add-ons to the state aid formula that would be 80 percent off the formula and 20 percent in the equalization aid formula;
- allowing industrial revenue bonds to be used for capital improvements to the schools in order to by-pass the two-thirds vote needed to pass educational improvement bond issues; and
- minimizing the effects of reassessment on the calculation of formula aid and local tax rates.

St. Louis

- "Improving" the foundation program but not "tampering" with the current formula;
- collective bargaining;
- getting more balance in the membership of the Retirement Board;
- a more flexible school day and school year;
- legislation that would not penalize districts with a loss of state aid for days lost due to staff strikes; and
- more balancing of staff re: age (using Minnescta's teacher mobility bill as a model).

The school district officials agreed informally to some legislative tradeoffs (i.e., I'll vote for your bill because it doesn't affect my district if you'll do the same for my bill). It was obvious, however, that

it will be difficult to work out a consensus on changes to the major state education aid program as it impacts so differently on the two districts. St. Louis gains aid whenever any new state dollars are allocated using the existing equalization aid formula; Kansas City is a "saveharmless" district and does not. Therefore, compromise must revolve around formula aid adjustments that help Kansas City without hurting St. Louis.

There was agreement that the most useful "state-of-the-art" papers would address issues that are unique to urban school districts and could lead to the development of "urban add-on factors" to the state aid formula: redefining fiscal capacity, the higher costs of educating students in cities, and special education. As considerable research has been conducted on cost-of-education differences in Missouri by the Education Commission of the States, there was no need to prepare a paper on this topic. A paper was written on the topic Measuring Fiscal Capacity in Support of Education and is included as Attachment F. Insufficient research was available at the time to prepare a background paper on the unique costs of special education in the cities, and this project lacked sufficient funds to look at the special circumstances of St. Louis and Kansas City.

Part III: Assessing the Project's Impact

As stated earlier in this report, our project had two general goals: (1) enhancing the capacity of the St. Louis and Kansas City school districts to lobby more successfully for state school aid by increasing their technical expertise and analytic capabilities in the area of school finance and (2) enhancing the districts' ability to work collaboratively with each other and with other school districts on this issue.

Enhancing School District Capacity in School Finance

The first project goal was addressed by providing technical training on the operation of Missouri's school finance formula and by testing, installing and training staff in the use of a computer simulation package, SFEMS. The impact of these activities will be limited, however, unless school district personnel have a commitment to apply this training and these tools to developing new school finance policies.

It appears that this commitment is lacking in both the St. Louis and Kansas City school systems for three reasons. First, school finance is not a day-to-day operational issue in an urban, or any other, school district. The primary consideration in school districts is how to allocate increasingly scarce resources, not how to raise them; state aid is viewed as just another item on the district's balance sheet. It seemed that much more of the top staff's attention was devoted to federal aid, although in both districts, and especially in St. Louis, federal aid provides less revenue than state aid. Each federal aid program requires a separate application form, due at different times during the year, and prepared by different offices within the district. Applying for state aid is a more routine exercise with established forms and data collection.

Second, there are few staff knowledgeable about the topic of school finance in Missouri's urban school districts, or in any urban school district in the country. In addition, the districts' school finance "experts" have other, much broader responsibilities as central office administrators, and have no staff assigned to the issue of state school finance. In the case

of St. Louis, the resident expert is the district's Treasurer who is divorced from the setting of intergovernmental policy. This staffing situation reflects the low priority given to the topic of school finance in the districts and as school district budgets are increasingly seqeezed by inflation, declining tax revenues and shrinking federal funds, there will be no extra staff available to focus on this topic. In Kansas City, for example, the school district raised funds through a business-based public education coalition to pay for the services of a lobbyist in Jefferson City.

The school finance and computer software training sessions involved staff from other departments of the school district. But these are not people who deal with school finance on a regular basis, and there is no reason to believe that the training alone will get them more involved developing school finance policy.

Finally, the central administrations of these city school districts are not structured to deal with long-range policy issues like changing a state education aid formula. Few school districts have developed a capacity for long-range planning and the financial squeeze facing these systems has led to a "management by crisis" management style. For example, one phase of this project was to conduct an assessment of the information needs for school finance policymaking in Kansas City and St. Louis. Questions included: What would be the role of a school finance simulation model in making policy decisions in the district? Where should this capability be housed? What technical and policy staff should be trained in its use? What state aid issues are of most concern to the district? The project staff seemed disinterested in carrying out this type of assessment, however, and could not see the need for it.

The lack of this assessment process has resulted in confusion over who is responsible for maintaining and operating the computer simulation system. SFEMS, because it is a computer program, is housed in the data processing departments of school districts. The data processing staff wait for "someone from research" or "someone from the superintendent's office" to tell them what to do with the program. The policymakers, meanwhile, expect the data processing staff, who are not involved in substantive issues in the department, to design the analyses (policy questions) as well as run the software. Until top management specifies the questions that the computer simulation should address and assigns personnel to be responsible for generating these questions and interfacing with the data processing staff, SFEMS may collect dust.

Increasing Collaboration among School Districts in Missouri

A second goal for this project was increasing the capacity of St. Louis and Kansas City to identify school finance issues of common concern to each other, and to other school districts in the state, for purposes of building coalitions in support of school finance reforms. For example, the two city school districts would benefit from the incorporation of a cost-of-education index in the current state aid formula. Computer simulations would identify other districts, most likely located in suburban Kansas City and St. Louis counties, that would also receive increased aid under this type of adjustment.

It is difficult to measure the degree to which this second goal has been achieved. The driving force behind the development of collaborative efforts was the Kansas City Public Schools. As noted earlier in this report, it is

this school system that has the incentive to press for modifications to the existing state aid formula. Their staff was interested, for example, in examining the impact of changes in the fiscal capacity measure, such as moving totally to an income factor in the formula, on Kansas City and other urban and rural school districts. Since installation of their new computer precluded the installation of SFEMS during the 1982 legislative session, EPRI ran some simulations for Kansas City to show who would have the most to gain, and who the most to lose, under this type of alternative. A sample of this computer analysis is included in Attachment G. With the departure of Dr. Moeller and his assistant, Dr. Susan Hartley, from the central office, I suspect that there will be little call for this kind of analysis in the near future.

A coalition of lobbyists and elected officials from Kansas City, Jackson County (suburban Kansas City), St. Louis and St. Louis County did successfully support a number of related bills in the 1982 legislative session:

- allowing governments to sell bonds with approval by four-sevenths, rather than the present two-thirds requirement;
- allowing school districts to increase their operating levies from $3.75 up to $5.25 on $100 of assessed value with only a simple majority voter approval, rather than the current two-thirds requirement (Amendment 4);
- providing a four-cent-a-pack increase in the cigarette tax earmarked for education; and
- eliminating the Merchants and Manufacturers tax on inventories and lessening the impact of statewide reassessment on homeowners and farmers (Amendment 7).

Amendments 4 and 7 were placed on the August 4th primary election ballot; number 4 was defeated while number 7 passed. The cigarette tax does not have to go before the voters.

The two [illegible] been collaborating for a number of years on this type of legislation. Both school districts are politically very savvy and employ lobbyists in Jefferson City. There are limits to the extent of this collaboration however. Although they share many common educational problems, the two school districts operate within different economic and political environments. For example, while St. Louis supported the inclusion of cost-of-education indices and declining enrollment adjustments in the current state aid formula, they could also support greater funding of the formula without these changes. Kansas City could not, and has pushed to have new state education aid dollars distributed on a straight per pupil basis. Thus, while the districts concur on the need to increase the state's contribution to education, they part company on many of the ways of distributing these dollars.

The Role of a Research and Development Organization in This Type of Collaborative Effort

An R & D organization, such as EPRI, can make four contributions to a collaborative effort like the one developed in this project.

(1) Helping the collaborators determine what questions to ask of their state school finance system. This requires training in how the state aid formula operates and in how to identify those key variables that help or hurt the cities.

(2) Identify other finance issues, such as the structure and funding of programs for special needs populations, or the funding of teacher pension programs, that should be of concern to the collaborating districts.

(3) Provide timely and relevant information on how other states have dealt with simular problems. A number of organizations, many with N.I.E. support, conduct research and disseminate information on the operation of state school finance systems. It is the role of the R & D firm to sift through this literature, determine which is relevant to the collaborators' situation, and design alternative policies based on the existing "state-of-the art."

(4) Provide an analytic framework and tools for evaluating the impact of existing and proposed education funding programs. This type of training builds on that provided in the first activity, but focuses on how to simulate alternative proposals, either manually or mechanically, and on how to evaluate their impact for purposes of building political coalitions with other school districts.

However, certain conditions must exist prior to the involvement of the R & D organization for this type of collaboration to be successful.

- The collaborating school districts must all have a well-defined and a long-term stake in school finance reform.
- The districts must be willing to commit on-going resources to this activity. The personnel who are directly involved can, and perhaps should be, middle-level staff who have the time to commit to this project, and who won't be continually distracted by other day-to-

day concerns. Yet, these staff must have access to top-level decision-makers in the district, to those personnel who will be negotiating support from other school districts and from legislators at the state capitol.

- The districts must be willing to view school finance reform as an integral part of their administrative activities. A number of staff, often located in different parts of the organization and reporting to different supervisors, will be involved in school finance evaluations -- finance, data processing, research and evaluation, and intergovernmental relations. Someone in the administration must be responsible for defining the purpose of the project, for setting priorities and for coordinating activities across departments.

If these preconditions do not exist, the R & D organization will not have any "capacity" to build up.

How can one tell whether the necessary conditions exist to support a successful collaborative effort in the area of school finance? What kinds of questions should a contractor, such as NIE, ask before funding such a project? I believe that the St. Louis/Kansas City project provides some valuable lessons.

First, one should determine more specifically what the products of the collaboration will be before the collaboration begins to insure institutional commitments to all activities. For example, the goals of this project were to "increase capacity" and "enhance collaboration." The details were to be spelled out in a series of planning meetings after the contract was let. There was little interest, however, in either school district in undertaking this planning process. The list of project activities was developed by EPRI, with the result that the districts did not have a major stake in their conduct.

Second, the structure of the collaboration should be spelled out more clearly in a proposal, showing the staff to be involved, their role in the project, and how they will be held to their "in-kind" contribution of

time. These guarantees are necessary to insure that staff understand the nature of their contributions and their importance to the success of the project.

Finally, collaborators should make clear how the project meets institutional priorities and how project activities will be absorbed into the structures of their organizations. For example, both Kansas City and St. Louis were interested in knowing more about state school finance issues so that they could increase the flow of state aid into their coffers. But this issue did not concern many district staff, school finance personnel were scattered throughout the organization, and the district administrators did not take steps to pull this group together, even on an ad hoc basis.

There are some problems that cannot be foreseen by a contractor, however. One is the impact of fiscal cutbacks on these kinds of collaborative efforts. Another, which is sometimes related to the first, is staff turnover. By the end of this project, both school district superintendents had left, and key personnel working on the project had found other jobs either inside or outside the district. When these staff stopped working on school finance activities, any long-term impact of the capacity building program was negated, and we do not know if the new leadership will retain school finance as a district priority.

Part IV: An Urban Educator's Handbook

The urban school finance problem, as it has been defined, has four dimensions. First, the cities have a resource base (fiscal capacity) that is insufficient to meet increasing educational costs. Second, education costs are greater in the cities due to the large number of students requiring special educational services (educational overburden) and to the higher prices paid

for all goods and services. Third, the far greater demand for noneducation services in cities places a disproportionately higher drain on the urban tax dollar than in nonurban areas (municipal overburden). Finally, state aid formulas are generally insensitive to these problems and therefore fail to compensate for the unique fiscal disadvantages of large urban school districts.

A handbook on urban school finance issues should (1) outline the dimensions of the fiscal capacity, educational overburden and municipal overburden problems; (2) provide basic information on how state-local school finance systems operate and show the reader how he or she can evaluate the impact of the state's school funding programs on his or her school district; (3) summarize current urban-oriented adjustments in state aid formulas; and (4) raise policy questions related to implementing urban provisions in state school finance systems.

The "state-of-the-art" paper on measuring fiscal capacity that was prepared for this project (Attachment F) provides an example of how one can define an urban finance issue for policymakers and set forth recommendations for changes in school finance formulas. A similar approach could be applied to the issue of educational overburden, drawing on recent work by Kakalik et al., [5] Moore, Walker and Holland,[6] and McGuire.[7]

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[5] James Kakalik et al. The Cost of Special Education. R-2858 ED (Santa Monica, Calif: Rand Corporation, 1981).

[6] Mary T. Moore, Lisa J. Walker and Richard P. Holland. Finetuning Special Education Finance: A Guide for State Policymakers. (Washington, D.C.: Education Policy Research Institute of Educational Testing Service, July 1982.)

[7] C. Kent McGuire. State and Federal Programs for Special Student Populations. Report No. F82-2. (Denver, Colo.: Education Finance Center, Education Commission of the States, April 1982.)

The handbook must be sensitive, however, to the different political and fiscal environments and state school finance structures in which urban school districts operate, as well as to the common core of problems facing them. A section on policy questions will alert the user to such issues as: (1) will your city (and/or other cities in your state) receive more aid under a particular urban-oriented adjustment? (This is largely a function of the relative fiscal capacity of the urban districts and the way in which the adjustment is structured.) (2) Are the data required to calculate the adjustment readily available? (3) Will the distribution of aid under the adjustment be politically acceptable?

In order to answer these questions, the policymaker must be familiar with the operation of his or her state's school finance formulas and with the techniques used to evaluate the outcomes of these formulas. A generalized handbook cannot train educators in the specifics of each state's formula, but information on the structure of the basic school finance formula types will aid in an understanding of how a particular formula operates. Materials of this sort can be found in Margaret Goertz's Plain Talk About School Finance, which was recently revised for N.I.E.

ATTACHMENT A

A Guide to The Missouri School Finance Formula

by

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Prepared under National Institute of Education
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Table of Contents

A GUIDE TO THE MISSOURI SCHOOL FINANCE FORMULA

Introduction

The total amount of money available to school districts is a sum of locally-raised revenues, state aid, federal aid and miscellaneous revenues. In Missouri, 9.5 percent of total education revenues came from federal aid in 1979-80, 37.2 percent from state aid and 53.3 percent from local sources.[1] The primary role of state aid in this resource pool is to compensate for differing abilities among districts to support education.

Locally-raised revenues are generally based on the wealth and tax-effort of the community.

Locally Raised Revenues for Schools = Tax Effort x Wealth

"Tax effort" is usually defined as the school tax rate and "wealth" as taxable property or property valuation.

This relationship between wealth and revenues makes it possible for a rich district to raise more revenue for education than a poor district even though both are applying the same tax rate. For example, a "wealthy" district with a property valuation of $100,000 per pupil and a tax rate of 20 mills, (or 2 percent of valuation), could raise $2,000 per pupil, (.02 x $100,000 = $2,000); while a "poor" district with a valuation of $25,000 per pupil and the same 20 mill tax rate could raise only $500 per pupil, (.02 x $25,000 = $500).

State aid to education can be introduced to overcome disparities in expenditures that are caused by variations in local wealth. This is the

[1] National Education Association, Estimates of School Statistics, 1979-1980.

traditional definition of "equalization." This distribution of money for "equalization" usually takes place through a formula where state dollars are distributed in inverse proportion to local wealth. In other words, the lower the district wealth, the more state aid it receives. As a result, the combination of state aid and local revenues enables a poor district to spend more nearly at the same per pupil level as a rich one.

The subject of this booklet is how Missouri's education finance plan undertakes this equalization objective; how state aid is distributed to make up for the differences among districts in needs, demands, and abilities to pay. This presentation is predicated on the assumption that evaluating your state's plan for financing education requires a working knowledge of how it operates. Therefore, the major features of Missouri's equalization aid programs are outlined, including the step-by step calculation of a school district's state aid allocation. These steps, however, may not always follow the same order as those on the state aid entitlement sheet. The emphasis is on enhancing your understanding of why, as well as how, these formulas work in the way they do.

Missouri provides aid to school districts through a number of programs. The largest of these, the Basic Grant Program, accounted for 76.4 percent of total state aid to education in 1978-79.[2] Other aid programs include those for transportation, special education, vocational education, and textbooks. The Basic Grant Program consists of two formulas: the Minimum Guarantee Program and the Guaranteed Tax Base Add-on Program.

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[2]Esther O. Tron, Public School Finance Programs, 1978-79.

Minimum Guarantee Program

Under the Minimum Guarantee portion of Missouri's state aid formula, each school district is guaranteed a basic amount of money for the cost of each pupil's education. This guaranteed amount is known as the Foundation Amount. Local school districts must contribute to this guaranteed amount. The local share is determined by levying a tax rate on a district's wealth. The amount raised by a district for the cost of each pupil's education from the state set tax rate is known as the Required Contribution. State Aid per pupil is the difference between the Foundation Amount and the district's Required Contribution. Thus,

$$\begin{array}{l}\text{State Aid}\\ \text{Per Pupil}\end{array} = \begin{array}{l}\text{Foundation Amount}\\ \text{Per Pupil}\end{array} - \begin{array}{l}\text{Required Contribution}\\ \text{Per Pupil}\end{array}$$

Foundation Amount

Missouri's education finance plan guarantees a fixed amount of dollars for each student's education called the Foundation Amount. This amount is intended to cover the basic cost of each student's education. The Foundation Amount established for Missouri's aid formula is 75 percent of the State Expenditure Factor. The State Expenditure Factor is the average current expenditure per pupil for the second preceding year. For 1979-80 aid calculations, the Foundation Amount was $1,049, (75 percent of $1,399). A district is expected to contribute to this guaranteed amount. Substituting in the general foundation formula above, State Aid per pupil is the difference between the state guaranteed $1,049 and a district's Required Contribution. Thus,

$$\begin{array}{l}\text{State Aid}\\ \text{Per Pupil}\end{array} = \$1{,}049 - \begin{array}{l}\text{Required Contribution}\\ \text{Per Pupil}\end{array}$$

Counting Pupils

For the purposes of distributing aid under the Minimum Guarantee Program, Missouri uses a pupil count known as Weighted Eligible Pupils. To compute the number of Eligible Pupils in a district, one takes the average of pupils in Membership and those in Average Daily Attendance (ADA). Membership is the average of the number of pupils enrolled in September and January (and who have attended one day or more of the preceding ten school days), while ADA is computed as total attendance days of students divided by the number of days in session.

In addition, pupils who are orphans or who live in families receiving Aid to Families with Dependent Children (AFDC) receive an extra weighting of 0.25. Table 1 shows how Weighted Eligible Pupils are calculated for a hypothetical school district.

Table 1

Calculation of Weighted Eligible Pupils

Pupil Count	Weighting	Number of Pupils	Weighted Eligible Pupils
Membership	0.50	400	200
Average Daily Attendance	0.50	350	175
AFDC and Orphans	0.25	100	25
District Weighted Eligible Pupils			400

Required Contribution

The next step in determining the amount of State Aid per pupil for a district is to calculate the district's Required Contribution. A

district's Required Contribution is a district's property valuation multiplied by a state determined tax rate, known as the Required Tax Rate. Thus,

Required Contribution	=	Property Valuation	x	Required Tax Rate

Calculating a district's Required Contribution is a multi-step process in Missouri since the State uses a number of different wealth measures and applies different Required Tax Rates to them. In order to make the explanations more manageable, values will be expressed in per pupil terms.

Step 1: Calculate Total Assessed Valuation. In the first step, one sums the Equalized Assessed Valuation of a district and its Railroad and Utilities State-assessed Valuation. Appendix A gives more detail on how these valuations are computed.

Example:			
		Equalized Assessed Value/Pupil	$28,500
	+	State Assessed RR & Util./Pupil	1,500
	=	Total Assessed Valuation/Pupil	$30,000

Step 2: Apply a Required Tax Rate to the Total Assessed Valuation. Missouri requires each district to levy a required school tax rate to qualify for aid under the Minimum Guarantee Program. The Required Tax Rate is 57 percent of the state Pupil-weighted Levy for the second preceding year. The Pupil-weighted Levy is the average operating tax levy for all districts "weighted" by the number of pupils in each district. This average changes each year as districts change their operating levies. The Pupil-weighted Levy was $2.97 in 1979-1980; the Required Tax Rate was $1.69, (.57 x 2.97). This rate can be expressed as dollars per hundred dollars of valuation (e.g., $1.69) or it can be expressed as 0.0169 per

dollar of valuation (1.69/ 100 = 0.0169). Remember, to determine a district's Required Contribution one multiples the district's Total Assessed Valuation by its Required Tax Rate.

Example: $30,000 x 0.0169 = $507 per pupil

Districts with higher valuations per pupil will have a larger Required Contribution than districts with less wealth. For example, Table 2 shows the Required Contribution per pupil for three school districts. District A with an adjusted valuation of $10,000 per pupil must contribute $169, whereas District C with a valuation of $50,000 must contribute $845.

Table 2

Required Contribution Per Pupil (with no income adjustment)

District	Per Pupil Total Assessed Value	Required Rate Tax	Required Contribution per Pupil
District A	$ 10,000	0.0169	$ 169
District B	$ 30,000	0.0169	507
District C	$ 50,000	0.0169	845

However, in Missouri, the Required Tax Rate is not applied uniformly in all districts. Instead, the Required Tax Rate is modified by the relative income of residents in each district.

Step 2A: Compute the district's Income Factor. Each district's Required Tax Rate is adjusted to reflect the relative income wealth of its residents. Income is measured as Adjusted Gross Income (AGI), as reported on the state income tax forms, divided by the number of returns filed. The Income Factor is computed as follows:

1. Divide the District Average AGI per Return by the State Average AGI per Return.
2. Add one (1) to this ratio.
3. Divide the result by two (2).

For example, assume that a district's average AGI per return is $8,000 and the state average AGI per return is $10,000. That district's Income Factor would be:

1. $8,000/$10,000 = 0.80
2. 1 + 0.80 = 1.80
3. 1.80/2 = 0.90

Thus, if a district has a below average income, its Income Factor will be less than 1. If the district has an above average income, its Income Factor will be greater than 1.

Step 2b: Apply the District Income Factor to its Required Tax Rate and Calculate the True Required Contribution. In this step, the Required Tax Rate is adjusted by each district's Income Factor as computed in Step 2a.

Example: $1.69 x 0.90 = $1.52

We will call this adjusted rate the District Required Tax Rate. Those districts with below average incomes will have a District Required Tax Rate that is less than the Required Tax Rate of $1.69. Those districts with above average incomes will have a rate higher than the Required Tax Rate. The impact of this adjustment on the Required Contribution is shown in Table 3.

Three hypothetical districts with the same Total Assessed Valuation per Pupil have different average AGI's per return. As a result, their District Required Tax Rates differ, and so do their Required Contributions.

Table 3

Required Contribution per Pupil with an Income Adjustment to the Required Tax Rate

District	Per Pupil Total Assessed Valuation	Average AGI per Return	Income Factor	District Required Tax Rate	Required Contribution
District B-1	$ 30,000	$ 10,000	1.0	0.0169	$ 507
District B-2	30,000	8,000	0.9	0.0152	$ 456
District B-3	30,000	12,000	1.1	0.0186	$ 558

Remember, without an income adjustment, a district with a valuation of $30,000 per pupil would be required to contribute $507 in local revenues under this aid program. District B-2 with below average income wealth need only contribute $456, while District B-3 with above average income is required to contribute $558.

Step 3: Calculate Required Contribution from other sources of revenues. Districts must also contribute 57 percent of their Intangible Tax Receipts (for school purposes) and Fines, Forfeitures and Escheats.

Example:	Intangible Tax Receipts/Pupil	$ 12.
	+ Fines, Forfeitures, Escheats/Pupil	+ 2.
		$ 14.0
	x 57 percent	= $8

Step 4: Sum the District's Required Contributions. The district's total Required Contribution is the sum of the dollars raised from the adjusted Total Assessed Valuation and from the Intangible Tax Receipts, Fines, Forfeitures and Escheats.

Example:	Dollars raised from Total Assessed Val.	$169/pupil
	+ Dollars raised from the other sources	8/pupil
	= Total District Required Contribution	$177/pupil

State Aid

Now that you have seen how to determine the Required Contribution, you can determine State Aid. Remember,

State Aid = \$1,049 - Required Contribution Per Pupil

Recall that our example district with a valuation per pupil of \$30,000 and an average income (District B-1) had a Required Contribution of \$515 per pupil. Thus, State Aid for this district is:

State Aid Per Pupil = \$1,049 - (\$507 + \$8)

= \$ 534

One purpose of the Missouri Minimum Guarantee Program is to lessen the disparity in the ability of districts to raise revenues. Therefore, low wealth districts receive more State Aid than high wealth districts. You have already seen in Table 2 that the Required Contribution increases as the valuation per pupil increases. Table 4A shows the State Aid per pupil for the same three districts. District A receives \$872 in State Aid whereas District C receives only \$196. Once a district's per pupil wealth exceeded \$62,000 it would not have been eligible for aid under this program in 1979-80 because its total Required Contribution would have equaled or exceeded the Foundation Amount. If the district had a below average income, however, it could have still qualified for aid with a slightly higher valuation.

Table 4A

State Aid

District	Property Valuation Per Pupil	Foundation Amount	Required Contribution Per Pupil			State Aid Per Pupil
			TAV	Other*	Total	
District A	$ 10,000	$ 1,049	$ 169	$ 8	$ 177	$ 872
District B	30,000	1,049	507	8	515	534
District C	50,000	1,049	845	8	853	196

*Includes required contribution from Intangible Tax Receipts, etc. It is assumed that all the hypothetical districts contribute the same $8 per pupil.

Figure 1 shows the Required Contribution and State Aid as components of the Foundation Amount for the three districts in Table 4A.

Note in Figure 1:

- o The property value per pupil is listed at the bottom of each bar.
- o The Foundation Amount is displayed at the top of each bar.
- o The Required Contribution is the shaded area at the bottom of each bar.
- o State Aid per pupil is represented by the white area. State Aid makes up the difference between the Foundation Amount and Required Contribution.
- o It is assumed that all three districts have average incomes.

Figure 1

Required Contribution and State Aid as Components of Foundation Amount

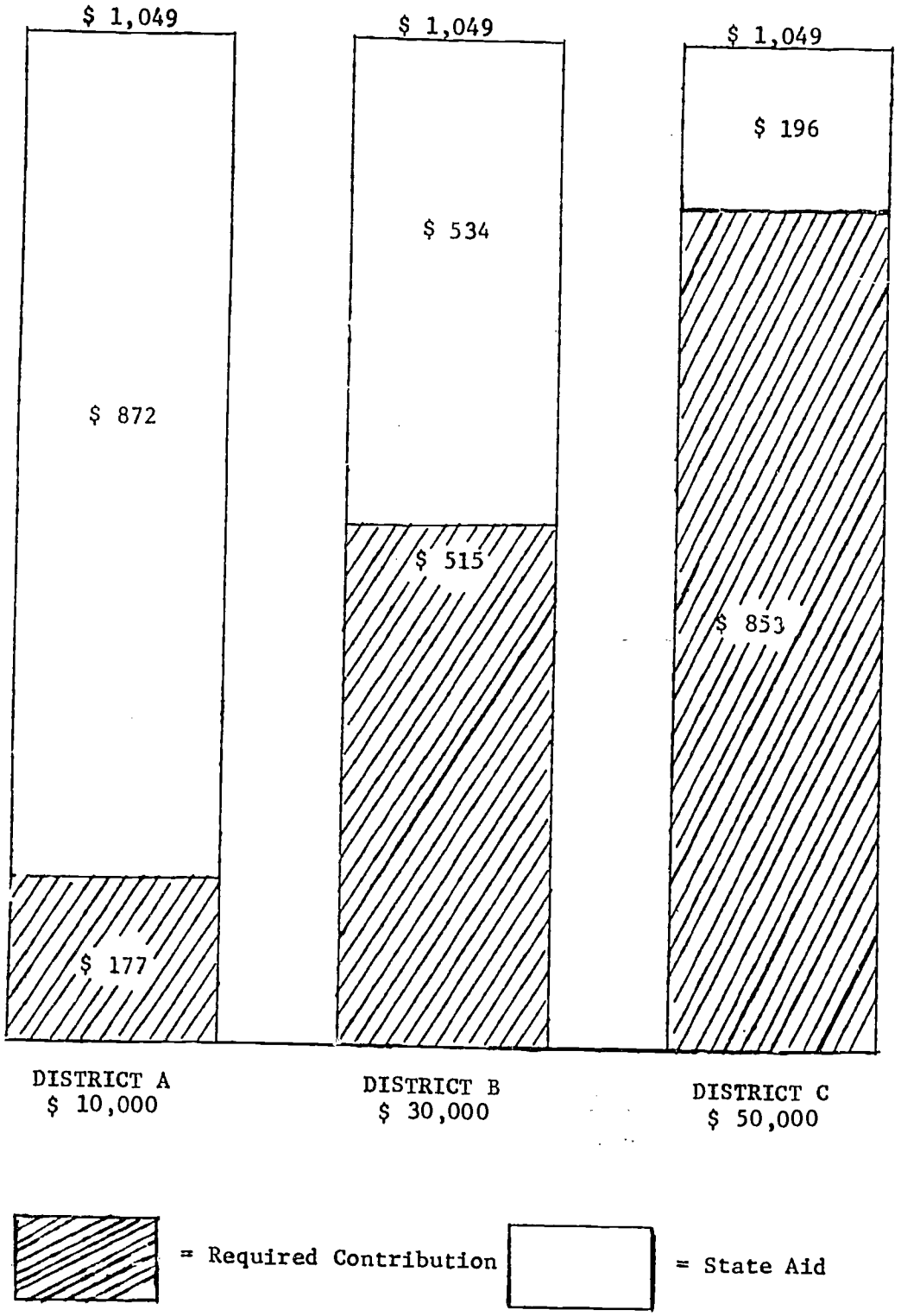


Table 4B shows State Aid allocated to the three districts from Table 3. Although all three districts have identical per pupil valuations, the variation in average AGI per return results in nearly a $100 difference in state aid payments between Districts B-2 (with below average income) and B-3 (with above average income).

Table 4B

State Aid

District	Property Valuation Per Pupil	Foundation Amount	Required Contribution Per Pupil TAV	Other	Total	State Aid Per Pupil
District B-1	$ 30,000	$ 1,049	$ 169	$ 8	$ 515	$ 534
District B-2	30,000	1,049	456	8	464	585
District B-3	30,000	1,049	558	8	566	483

To calculate a district's entitlement under the Minimum Guarantee Program, that is, the aggregate amount of aid due to it, one must multiply State Aid per pupil by the district's number of weighted eligible pupils.

Example: For District B-1

District Foundation Entitlement = $534 x 400 Weighted Eligible Pupils

= $213,600

Guaranteed Tax Base Add-on

The Minimum Guarantee Program allows a participating district to tax itself at a rate above the District Required Tax Rate. Known as a "local leeway," this add-on has always been an integral part of Minimum Foundation programs. The supporters of the original foundation plan

felt that local option would encourage adaptability and change within the educational system. However, under a foundation program a tax rate higher than the required tax rate will not cause an increase in state aid. Therefore the ability to raise revenues above the foundation level varies with the wealth of the district.

Let us assume that our sample Districts A, B and C choose to tax themselves at a rate of $2.69: $1.69 for the Minimum Guarantee Program plus $1.00 local leeway. For the additional $1.00 tax rate, District A can raise $100 in local revenue ($10,000 x .01), District B can raise $300 from local taxes and District C, $500 of additional revenue. Table 5 shows the result of local leeway.

Table 5

Local Leeway

Minimum Guarantee Program

District	Valuation	Required Local Contribution	State Aid	Minimum Program
A	$ 10,000	$ 169 + 8	$ 872	$ 1,049
B	30,000	507 + 8	534	1,049
C	50,000	845 + 8	196	1,049

Minimum Guarantee Program Plus Local Leeway

District	Property Valuation	Minimum Program	Yield $ 1.00 Local Leeway	Total Revenues
A	$ 10,000	$ 1,049	$ 100	$ 1,149
B	30,000	1,049	300	1,349
C	50,000	1,049	500	1,549

With the same tax effort, a tax rate of $2.69, District C can now spend $1,549 whereas District A can only spend $1,149. The impact of state aid has become less equalizing with the addition of "local leeway."

In an attempt to equalize this "local leeway," Missouri has adopted a Guaranteed Tax Base Add-on provision as part of its operating aid formula. Unlike the Minimum Guarantee Program, the Guaranteed Tax Base (GTB) Program provides districts with an incentive to increase tax effort since aid increases proportionately for every increase in the tax rate. We will first discuss how a Guaranteed Tax Base Plan works in general, and then look at its application as an add-on provision in Missouri's formula.

Guaranteed Tax-Base Formula

While the Minimum Guarantee Program emphasizes the state guaranteed spending level, the Guaranteed Tax Base Plan emphasizes the state-determined tax base and the district's local tax effort. First, the Guaranteed Tax Base Plan is designed to assure that every district in the state can act as though it has a tax base the same as some state set level. Under a guaranteed tax base program, the local school district chooses its tax rate for education. This tax rate is then applied to the guaranteed tax base and the actual tax base for the school district. State aid is the difference between what would be raised with the guaranteed tax base and what can actually be raised from the local tax base. The greater the difference between actual and guaranteed wealth, the larger the amount of state aid. The Guaranteed Tax Base formula is:

$$\text{State Aid} = (\text{Guaranteed Tax Base} \times \text{Local Tax Rate}) - (\text{Actual Tax Base} \times \text{Local Tax Rate})$$

Let us assume that a state guarantees a tax base of $50,000 per pupil. Let us also assume that District A with its per pupil valuation of $10,000 and District B with its property valuation of $30,000 pupil each have a local tax rate of 10 mills, or 1 percent. Table 6 shows the state aid for these two districts under a pure GTB formula.

Table 6

Guaranteed Tax Base

District	Guaranteed Tax Base	Local Tax Base	Tax Rate	Guaranteed Revenues	Local Revenues	State Aid
A	$ 50,000	$ 10,000	.01	$ 500	$ 100	$ 400
B	50,000	30,000	.01	500	300	200

Since each district has the same tax rate of 1 percent, each is guaranteed revenues of $50,000 x .01, or $500 per pupil. District A raises $100 from its local tax base, ($10,000 x .01 = $100). Thus, District A receives $500 - $100, or $400 in state aid. District B with a larger tax base receives only $200 in state aid.

Let us assume that each district doubles its tax rate to 20 mills or 2 percent. Each district now has a revenue guarantee of $50,000 x .02, or $1,000. District A raises $10,000 x .02, or $200, in local revenues and receives $800 in state aid ($1,000 - $200). District B raises $600 in local revenues ($30,000 x .02) and receives $1,000 - 600, or $400 of state aid.

Criteria for Participating in GTB Add-on Program

Not all districts that receive aid under the Minimum Guarantee Program are eligible for aid under the GTB Add-on Program. In order to participate in this second aid program, school districts must meet two criteria.

- Their Total Assessed Valuation per Eligible Pupil must be less than the state-established Guaranteed Tax Base level.
- Their Equalized Operating Tax Levy must be greater than their District Required Tax Rate for the Minimum Guarantee program (i.e., they must spend more than the Foundation Amount).

Table 7

Criteria for Participating in GTB Add-on

	State-established GTB (1979-80)	District Valuation/ Eligible Pupil	District Required Tax Rate	District Equalized Operating Tax levy	Can Participate?
District D	$ 43,726	$ 10,000	$ 1.69	$ 1.69	no
District E	43,726	30,000	1.86	2.00	yes
District F	43,726	50,000	1.92	2.50	no

NOTE:

- Each year the districts are ranked from lowest to highest according to the amount of equalized assessed valuation per eligible pupil.
- The Guaranteed Tax Base for 1979-80 was the amount of equalized valuation per eligible pupil of the school district in which the eighty-seventh percentile (87%) of the aggregate number of eligible pupils fell during the preceding year. For each year thereafter, through 1982-1983, the percentile level used to determine the amount of the guaranteed tax base will be increased one percentile to a maximum of the 90th percentile.
- When the state computes Property Valuation per Pupil for the GTB Add-on, it does not include the extra weightings for AFDC students and orphans. Table 8 shows the impact of this change on districts with high concentrations of these types of students.

Table 8

District	Total Assessed Valuation	Weighted Eligible Pupils	Eligible Pupils	Valuation per Weighted Pupil	Valuation per Eligible Pupil
District B	$12,000,000	400	375	$ 30,000	$ 32,000
District X	17,000,000	410	380	41,463	44,736

- The use of Eligible Pupils without the extra weightings can make a district look relatively wealthier for purposes of computing GTB Add-on aid. In the case of District B, the district still qualifies for aid, but will not receive as many dollars. In the case of District X, when an Eligible Pupil count is used it is

too wealthy to qualify for add-on aid. When a weighted pupil count is used, it has a valuation which is less than the GTB level.

Calculating GTB Add-on Aid

Four steps are involved in computing a district's entitlement under Missouri's GTB Add-on Program.

Step 1: Calculate the difference between the District's Required Tax Rate and its Equalized Operating Levy.

Missouri equalizes revenues raised by a district's first $1.69 of operating school levy (as adjusted by the district's income factor) through the Minimum Guarantee Program. The GTB Add-on program provides equalization aid for the remainder of the district's levy.

Example: Assume that District B has an Operating Levy of $2.69 and a District Required Tax Rate of $1.69. The Operating Levy applicable to the GTB Add-on is $1.00.

$2.69 - $1.69 = $1.00

Step 2: Apply this tax rate differential to the Guaranteed Tax Base.

The GTB program allows a district to behave as though it had a valuation equal to the Guaranteed Tax Base. Thus, the extra $1.00 in tax effort will guarantee all eligible districts an additional $437.26 in combined state and local revenues.

Example: $1.00 per hundred is the same as $0.01 per dollar of valuation. Therefore,

$43,726 X 0.01 = $437.26

Step 3: Calculate the District's Contribution. As in the Minimum Guarantee Program, the district must contribute some of its revenues to this add-on. The district contribution is calculated by applying the

district's tax rate differential to the district's Total Assessed Valuation per Eligible Pupil.

Example: District B's Valuation per Eligible Pupil is $32,000 (See Table 8).

$ 32,000 X .01 = $320

District B must contribute $320 toward the $437.26 guaranteed by the state under the GTB Add-on.

Step 4: Determine State Aid. Remember, State Aid is the difference between the Guaranteed Amount and the District's contribution. Therefore, in this example,

State Aid = $437.26 - $320.00

= $117.26.

To calculate the district's GTB Add-on entitlement, multiply its per pupil State Aid times its Eligible Pupil Count.

Example: $117.26 X 375 = $43,972.50

Remember, although District B has 400 Weighted Eligible Pupils, it has only 375 Eligible Pupils.

Under a GTB-type formula, districts with similar wealth but different operating tax rates will be guaranteed different levels of revenues and receive different amounts of state aid.

Table 9

State Aid Under GTB Add-on

District	Property Valuation per Pupil	District Operating Levy for GTB Add-on	Guaranteed Revenues	District Contribution	State Aid
District B-1	$ 32,000	0.50	$ 218.63	$ 160.00	$ 58.63
District B-2	32,000	1.00	437.26	320.00	117.26
District B-3	32,000	2.00	874.52	640.00	234.52

District B-1, with an extra tax effort of $0.50 is guaranteed an additional $218.63 in education revenues and receives $58.63 in additional aid; District B-3 with an extra tax effort four times as great, $2.00, is guaranteed an additional $874.52 in revenues and receives $234.52 in additional aid.

Total District Entitlement

To determine the district's total entitlement, one must add the foundation entitlement and GTB entitlement together.

Example:

$ 213,600.00 + $ 43,972.50

(Foundation entitlement) + (GTB Add-on entitlement)

= $ 257,572.50 (total entitlement)

One cannot add together the per pupil entitlements since Minimum Guarantee Aid is calculated on a weighted pupil count and GTB Add-on aid is computed using an unweighted count.

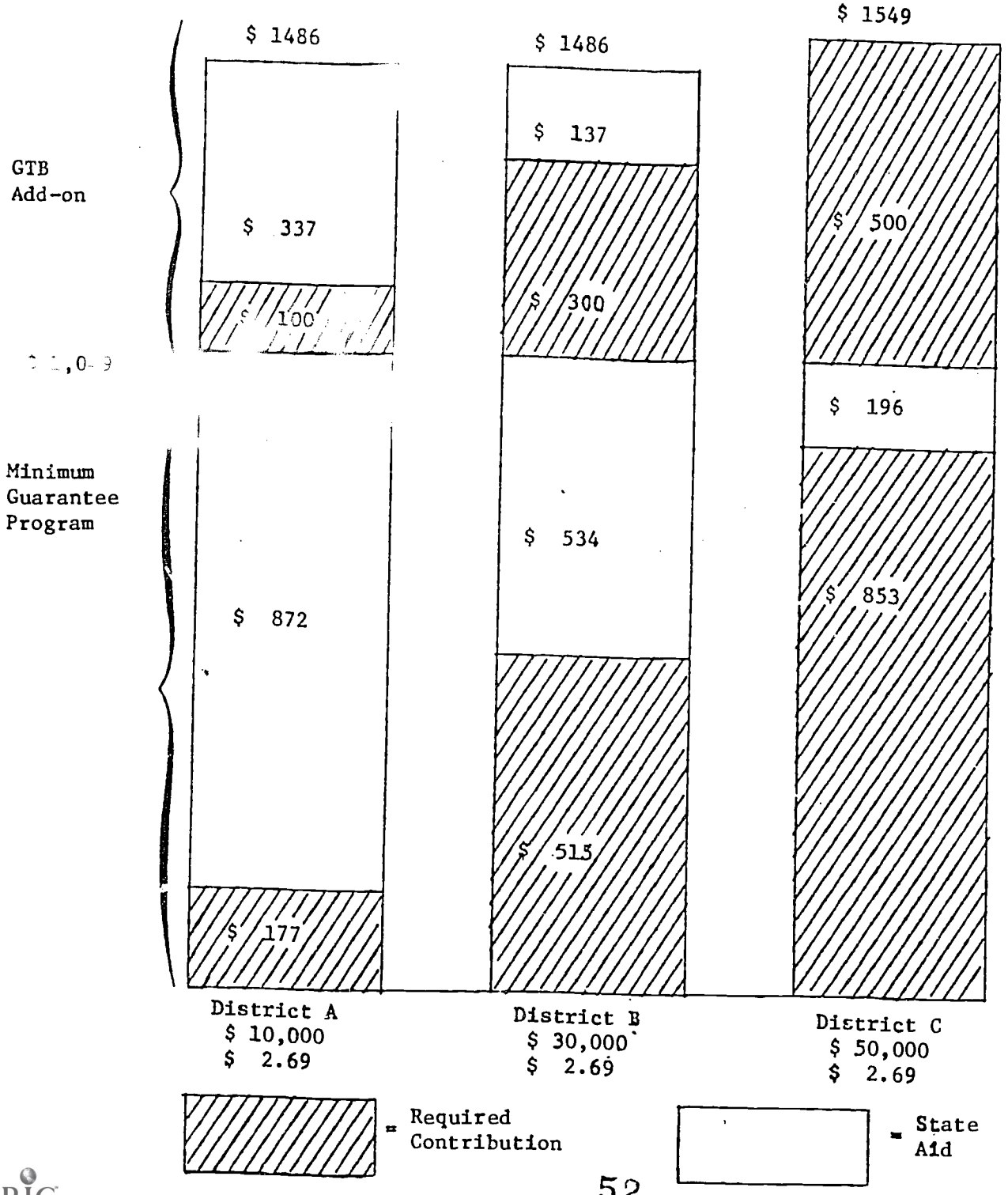
Figure 2 illustrates the impact of the two equalization formulas on three districts with similar "local leeway," but of different wealth.

Note in Figure 2:

- The property value per pupil is listed at the bottom of each bar.
- Each district levies a total operating tax rate of $2.69, $1.00 over the required rate.
- All three districts are guaranteed $1,049 under the Minimum Guarantee program through a combination of local revenues (shaded area) and state aid (white area).
- Districts A and B are guaranteed an additional $437 in state and local revenues through the GTB Add-on Program, for a total of $1486.
- District C is too wealthy to "participate" in the GTB Add-on Program. It can raise $500, or more than the guaranteed $437, through its $1.00 "local leeway" tax rate. Therefore, District C receives $1549 for a $2.69 total operating rate ($1049 + $500).

Figure 2

Impact of GTB Add-on with
"Local Leeway" of $1.00



- District A receives the most state aid, $1209, and District C receives the least, $196.

Figure 3 illustrates the combined impact of the Minimum Guarantee Program and the GTB Add-on Program on three districts of similar wealth, but with different total operating levies. District B-1 has a "local leeway" of $0.50, District B-2 of $1.00 and District B-3 of $1.50.

Note in Figure 3:

- All three districts are guaranteed $1049 in revenues under the Minimum Guarantee Program. Each contributes $515 in local revenues and receives $534 in state aid.
- Under the GTB Add-on, District B-1 is guaranteed an additional $218, for a total of $1267, while District B-3 is guaranteed an additional $655, for a total of $1704 in revenues.
- District B-3 must raise an additional $450 in local revenues, while District B-1 must contribute an additional $150.

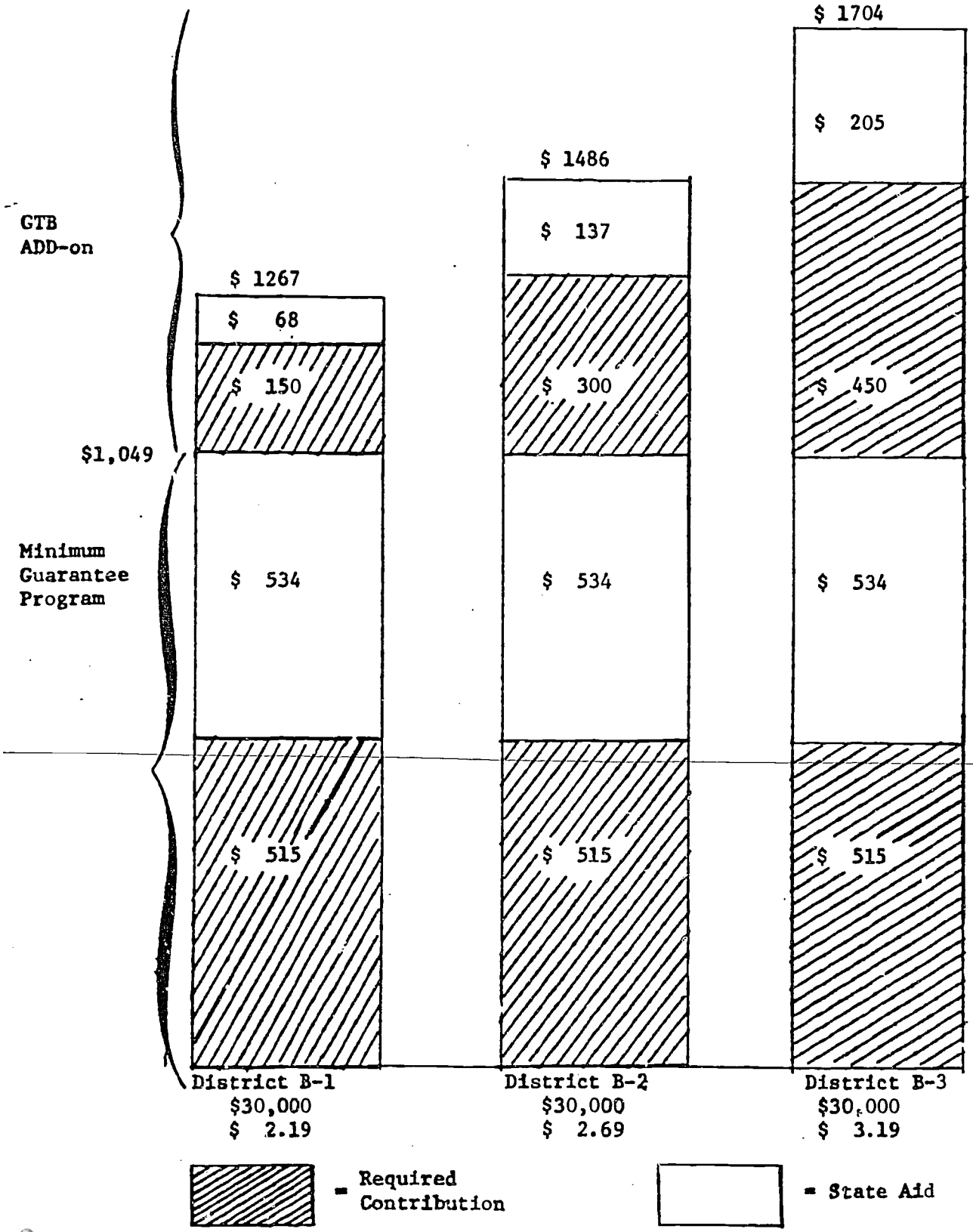
Other Formula Provisions

The state aid computed under the Minimum Guarantee and GTB Add-on provisions are not necessarily the aid amounts that will be paid to the districts. In certain situations, a district will receive less than its entitlement; in other situations, a district can receive more.

A distinction should be made between the amounts allocated to districts under the two distribution formulas we have studied -- Minimum Guarantee Program and GTB Add-on -- and the appropriation by the General Assembly of the specific amount of money available to be distributed under these formulas. Very often, the total amount of aid that districts are entitled to under the distribution formula exceeds the money available from the state. States use different mechanisms for reconciling disparities between these two amounts. In Missouri, this approach is called the Limited Apportionment.

Figure 3

Impact of GTB Add-on Districts of
Equal Wealth, Differential Tax Rates



Limited Apportionment

Under Limited Apportionment, no district can receive an increase in per pupil state aid which is more than 25 percent of its previous year's apportionment. The Limited Apportionment is calculated in the following way.

Step 1: The state computes the District's Apportionment per Eligible Pupil for the previous year.

$$\frac{\text{District Apportionment (Previous Year)}}{\text{Eligible Pupils (Previous Year)}}$$

Step 2: The district's Entitlement for the current year is also divided by last year's Eligible Pupil count.

$$\frac{\text{District Entitlement (Current Year)}}{\text{Eligible Pupils (Previous Year)}}$$

For example, District B's per pupil entitlement for this year would be

$$\$ \frac{257,572.50}{375} = \$ 686.86$$

Step 3: The state compares this year's and last year's apportionments. Let us assume that District B's apportionment for the previous year was $600 per Eligible pupil. The difference is $86.86

$$\$ 686.86 - \$ 600.00 = \$ 86.86 .$$

Step 4: The district will be granted only 25 percent of this increase, or $ 21.72 (86.86 X 0.25). Therefore, District B's Limited Apportionment is:

$$\$ 600 + 21.72 = \$ 621.72.$$

This amount is $65 per pupil less than its calculated entitlement of $686.86.

When all of these steps are combined, the formula used to calculate Limited Apportionment looks like:

$$\left[\left[\left(\frac{\text{District Apportionment}}{\text{E.P. (Prev. Yr.)}} - \frac{\text{Apportionment (Prev. Yr.)}}{\text{E.P. (Prev. Yr.)}}\right) \times 25\%\right] + \left[\frac{\text{Apportionment (Prev. Yr.)}}{\text{E.P. (Prev. Yr.)}}\right]\right] \times \text{Eligible Pupils}$$

Hold Harmless

Some districts would be entitled under these formulas to a smaller district apportionment than they received in 1976-77. These districts receive a reduction of 20 percent of the difference between the district entitlement per eligible pupil and its entitlement per pupil for the 1976-77 school year. Every district was guaranteed a minimum of $287 per eligible pupil in aid in 1979-80. This minimum base amount is adjusted annually to reflect the percent of change in appropriations for the school foundation program. In 1978-79, 32 districts received aid under the hold-harmless provision.

APPENDIX A

Computing Equalized Assessed Valuation

Equalized property valuation differs from assessed property value in that it attempts to eliminate differences in local assessment practices across jurisdictions. Missouri law requires that all assessed valuation used in the Minimum Guarantee and GTB Add-on Programs be equalized to 33-1/3 percent of true value.

To bring all of the counties' actual assessment ratios up to 33-1/3 percent, the State Tax Commission samples properties in each county and St. Louis and establishes a realistic ratio of actual property values to locally-assessed value. This ratio is called the effective ratio. Equalized Assessed Valuation is then determined by multiplying the valuation as assessed by each county by .333 and dividing the product by the effective ratio for the county.

For example, Jackson County has an assessment ratio of 21.5 percent, lower than the state-mandated ratio of 33.3 percent. Therefore, its equalized assessed valuation will be:

$$\text{Equalized Assessed Valuation} = \text{Assessed Valuation} \times \frac{0.333}{0.215}$$

Operating tax rates are also adjusted to reflect differences in assessment ratios for purposes of calculating state aid.

DISSEMINATION OF SCHOOL FINANCE SERVICES
IN URBAN SCHOOL DISTRICTS
Saint Louis, Missouri

May 21, 1981

A G E N D A

Robert E. Wentz, Superintendent of Schools Saint Louis Public School District	
9:00 a.m. - 9:10 a.m.	Greetings, Introductions, Background of School Finance Study
Margaret E. Goertz, Policy Research Scientist - Education Policy Research Institute	Training Session on Missouri School Finance
9:10 a.m. - 9:30 a.m.	Introduction
9:30 a.m. - 10:15 a.m.	Concepts of Equity in School Finance
10:15 a.m. - 10:30 a.m.	Break
10:30 a.m. - 12:00 Noon	The Missouri School Finance Formula
12:00 Noon - 1:00 p.m.	Lunch
1:00 p.m. - 2:00 p.m.	The Missouri School Finance Formula (continued)
2:00 p.m. - 3:30.p.m.	Evaluating Missouri's School Financ System and Discussion of Alternativ Formulas

ATTACHMENT B

Kansas City Public Schools

The School District of Kansas City, Missouri
1211 McGEE STREET, KANSAS CITY, MISSOURI 64106, Phone 816/221-7565

Superintendent
ROBERT R. WHEELER

CONFERENCE ON STATE SCHOOL FINANCE
May 22, 1981

MORNING SESSION: Board Room of BMA Tower - 19th Floor

9:30 a.m. - Coffee

10:00 a.m. - Opening

-- Mr. Steve Hurst, Conference Moderator

The Kansas City School District: Comments
-- Dr. Robert R. Wheeler, Superintendent

The Kansas City School District: Financial Needs and Revenue Projections
-- Dr. Donald Martin, Director, Business Division

Missouri's Foundation Formula
-- Dr. Margaret Goertz, Educational Policy Research Institute, Educational Testing Service, Princeton, New Jersey

Pending Legislation
-- Dr. Edward W. Scaggs, President, School Board of Kansas City, Missouri

NOON: BUFFET LUNCH - Skyline Room - 19th Floor

AFTERNOON SESSION: Board Room of BMA Tower - 19th Floor

Legislative Funding Alternatives
-- Dr. Margaret Goertz

Adequate Funding of The Kansas City School District
How do we get it?

-- Panel consisting of Mr. Fletcher Daniels, Chairman, Legislative Committee, Board of Directors, Kansas City School District, Dr. Margaret Goertz, Dr. Donald Martin, Dr. Robert Wheeler

-- Comments by Conference Participants

ATTACHMENT C

SCHOOL FINANCE EQUALIZATION MANAGEMENT SYSTEM

LAYOUT	PROJECT/JOB	DATE	PAGE	PROGRAMMER	STATE
General	503-25	8/81	1		Missouri

DATA SET NAME	APPLICATION	RECORD NAME
MO.GENDATA	General Data	

START	LENGTH	FIELD NUMBER	DATA INT.	FIELD NAME	COMMENTS
1	2	-	C1	Record Code 'DD'	
3	1	-	9	Delete Indicator	('1' indicates delete)
4	3	-		Filler	
7	4		9(4)	Relative record number	
11	30			Indicative fields	
11	1	401	C1	SAF-HH-Base	SAF #496
12	1	402	C1	SAF-HH-Dist	#497
13	1	403	C1	SAF-Type	#499
14	1	404	C1	SAF-Class	#500
15	1	405	C1	County Selector	0 = St. Louis (115) 1 = Jackson County (048) 2 = All Others
16	1	406	C1		
17	1	407	C1		
18	1	408	C1		
19	1	409	C1		
20	1	410	C1		
21	2	411	C2		
23	2	412	C2		
25	2	413	C2		
27	2	414	C2		
29	2	415	C2		
31	8	-	C8	District code	
39	2	-		Filler	
41	30	-	C30	District name	
71	30	-		Filler	

SCHOOL FINANCE EQUALIZATION MANAGEMENT SYSTEM

LAYOUT	PROJECT/JOB	DATE	PAGE	PROGRAMMER	STATE
General		8/81	2		Missouri

DATA SET NAME	APPLICATION	RECORD NAME
MO.GENDATA	Enrollment Fields 101-125	District

START	LENGTH	FIELD NUMBER	DATA FMT.	FIELD NAME	COMMENTS
101	8	101	9(6)V99	ADA 1979-80	SAF #5
109	8	102	9(6)V99	ADA 1978-89	#6
117	8	103	9(6)V99	MEMB 1979-80	#7
125	8	104	9(6)V99	MEMB 1978-79	#8
133	8	105	9(6)V99	Elig. Pupils 1976-77	#9
141	8	106	9(6)V99	E.P. Payment 1980-81 Aid	#10
149	8	107	9(6)V99	E.P. Est. 1980-81 Aid	#11
157	8	108	9(6)V99	Elig. Pupils 1979-80	#12
165	8	109	9(6)V99	Elig. Pupils 1978-89	#13
173	8	110	9(6)V99	AFDC 1979-80	#14
181	8	111	9(6)V99	Orphans 1979-80	#15
189	8	112	9(6)V99		
197	8	113	9(6)V99		
205	8	114	9(6)V99		
213	8	115	9(6)V99		
221	8	116	9(6)V99		
229	8	117	9(6)V99		
237	8	118	9(6)V99		
245	8	119	9(6)V99		
253	8	120	9(6)V99	Eq. Operating Levy 1979-80	SAF # 3
261	8	121	9(6)V99	Teacher Levy 1979-80	#46
269	8	122	9(6)V99	Incid. Levy 1979-80	#47
277	8	123	9(6)V99	Bldg. Levy 1979-80	#48
285	8	124	9(6)V99	Debt Levy 1979-80	#49
293	8	125	9(6)V99	Teacher Levy 1980=81	#51

SCHOOL FINANCE EQUALIZATION MANAGEMENT SYSTEM

LAYOUT	[illegible]	[illegible]	PAGE	[illegible]	STATE
General	503-25	8/81	3		Missouri

DATA SET NAME	APPLICATION	RECORD NAME
MO.GENDATA	Enrollment Fields 126-136	

START	LENGTH	FIELD NUMBER	DATA FMT.	FIELD NAME	COMMENTS
301	8	126	9(6)V99	Incid. Levy 1980-81	SAF #52
309	8	127	9(6)V99	Bldg. Levy 1980-81	#53
317	8	128	9(6)V99	Debt Levy 1980=81	#54
325	8	129	9(6)V99	Sales Ratio	(*.01) #57
333	8	130	9(6)V99		
341	8	131	9(6)V99		
349	8	132	9(6)V99		
357	8	133	9(6)V99		
365	8	134	9(6)V99		
373	8	135	9(6)V99		
381	8	136	9(6)V99		
389	12	-		Filler	

LAYOUT	PROJECT/JOB	DATE	PAGE	PROGRAMMER	STATE
General	503-25	8/81	4		Missouri

DATA SET NAME	APPLICATION	RECORD NAME
MO.GENDATA	Financial Fields 201-225	District

START	LENGTH	FIELD NUMBER	DATA FMT.	FIELD NAME	COMMENTS
401	10	201	9(10)	Equalized Val. 1979	SAF #28
411	10	202	9(10)	Assessed Val. 1979	#56
421	10	203	9(10)	Fine-Forf-Esch 1979	#16
431	10	204	9(10)	Int-Tax-School 1979	#17
441	10	205	9(10)	Dist. Income Factor 80-81 (for aid)	(*.0001) (*14,802) #20
451	10	206	9(10)	Tot. Rev. Deducs. (for 80-81 aid)	#37
461	10	207	9(10)	Fdn. Entitlement 1980-81	#38
471	10	208	9(10)	GTB Entitlement 1980-81	#39
481	10	209	9(10)	Dist. Entitlement 1980-81	#40
491	10	210	9(10)	Actual Entitlement 1980-81	#41
501	10	211	9(10)	1976-77 Apportment	#29
511	10	212	9(10)	1979-80 Apportionment	#30
521	10	213	9(10)	GTB Tax Rate (for 80-81 aid)	(*.000001) #23
531	10	214	9(10)	Transportation Aid 1980-81	#42
541	10	215	9(10)	Excep. Pupil Aid 1980-81	#43
551	10	216	9(10)	Hand. Census Aid 1980-81	#44
561	10	217	9(10)	Gifted Aid 1980-81	#60
571	10	218	9(10)	Excep. Pupil Aid-Category Remedial Reading	1980-81 EPD #59
581	10	219	9(10)	Sev. Handicapped	#60
591	10	220	9(10)	Early Child. Spec. Educ.	#61
601	10	221	9(10)	Specific LD	#62
611	10	222	9(10)	Rem. Speech Language	#63
621	10	223	9(10)	Speech and Language Disorder	#64
631	10	224	9(10)	Hard of Hearing	#65
641	10	225	9(10)	Deaf	#66

LAYOUT	PROJECT/JOB	DATE	PAGE	PROGRAMMER	STATE
General	503/25	8/81	5		Missouri

DATA SET NAME	APPLICATION	RECORD NAME
MO.GENDATA	Financial Fields 226-250	District

START	LENGTH	FIELD NUMBER	DATA FMT.	FIELD NAME	COMMENTS
651	10	226	9(10)	Exceptional Pupil Aid-Category Mental Retardation	EPD #67
661	10	227	9(10)	Ortho. Handicapped	#68
671	10	228	9(10)	Partially Sighted	#69
681	10	229	9(10)	Blind	#70
691	10	230	9(10)	Behavioral Disorders	#71
701	10	231	9(10)	Prof. Personnel	#72
711	10	232	9(10)	Adjustment Money	#74
721	10	233	9(10)	Exceptional Pupil--Teachers Rem. Reading	(*.01) #02
731	10	234	9(10)	Sev. Handicapped	(*.01) #06
741	10	235	9(10)	Early Child. Spec. Educ	(*.01) #10
751	10	236	9(10)	Specific LD	(*.01) #14
761	10	237	9(10)	Remedial Speech/ Language	(*.01) #18
771	10	238	9(10)	Speech/Lang. Disorders	(*.01) #22
781	10	239	9(10)	Hard of Hearing	(*.01) #26
791	10	240	9(10)	Deaf	(*.01) #30
801	10	241	9(10)	Mental Retardation	(*.01) #34
811	10	242	9(10)	Ortho. Handicapped	(*.01) #38
821	10	243	9(10)	Partially Sighted	(*.01) #42
831	10	244	9(10)	Blind	(*.01) #46
841	10	245	9(10)	Behavioral Disorders	(*.01) #50
851	10	246	9(10)	Professional Personnel	(*.01) #54
861	10	247	9(10)	Except. Pupils Programs Total Number of Aides	(*.01) (Sum of #8,12,16,20, 24,28,32,36,40,44,48,and 52)
871	10	248	9(10)		
881	10	249	9(10)		
891	10	250	9(10)	RR-Utils Assessed Val. 1979	SAF #62

ALLOCATION TITLE : MO FORMULA W/ LIMITED APPORT AND S-H ID : MOTEST02
REPORT TITLE : AID ALLOCATION DETAIL REPORT

DISTRICT CODE: 048078 DISTRICT NAME: 33 KANSAS CITY

AID PROJECTIONS:

	PER STUDENT UNIT AMOUNTS		DISTRICT TOTAL AMOUNTS	
	PROJECTIONS	BASE YEAR	PROJECTIONS	BASE YEAR
DISTRICT TYPE 1--S W/ AID GAINS				
NUMBER OF STUDENT UNITS			39218.93	
WEALTH BASE	47017.		1843960818.	
WEALTH TIER 2 (NUMERATOR)	50459.		1843327248.	
WEALTH TIER 2 (DENOMINATOR)			36531.	
AIDABLE EXPENDITURE	1519.		59560528.	
MINIMUM AID	0.		0.	
EQUALIZATION AID	373.		14632692.	
TOTAL FORMULA AID	373.	346.	14632692.	13575229.
CATEGORICAL PROGRAMS:				
TRANSP. AID	83.		3236866.	
EXC. PUPIL AID	83.		3269132.	
TOTAL CATEGORICAL AID	166.		6505998.	
TOTAL AID	539.		21138690.	

ATTACHMENT D

ALLOCATION TITLE: NO FORMULA W/ LIMITED APPORT AND S-H ID: NOTEST02
REPORT TITLE: AID ALLOCATION DETAIL REPORT

DISTRICT CODE: 096095 DISTRICT NAME: PARKWAY

AID PROJECTIONS:

	PER STUDENT UNIT AMOUNTS		DISTRICT TOTAL AMOUNTS	
	PROJECTIONS	BASE YEAR	PROJECTIONS	BASE YEAR
DISTRICT TYPE 2--S W/ AID LOSES 8				
NUMBER OF STUDENT UNITS			22859.34	
FORMULA SAVE HARM LEVEL	0.		321.	
WEALTH BASE	59957.		1370580772.	
WEALTH TIER 2 (NUMERATOR)	45033.		1028607270.	
WEALTH TIER 2 (DENOMINATOR)			22841.	
AIDABLE EXPENDITURE	1762.		40283276.	
MINIMUM AID	46.		1051973.	
EQUALIZATION AID	249.		5686148.	
TOTAL FORMULA AID	295.	310.	6738122.	7087189.
FORMULA SAVE HARM AID	0.		0.	
CATEGORICAL PROGRAMS:				
TRANSP. AID	40.		912678.	
EXC. PUPIL AID	6.		139525.	
TOTAL CATEGORICAL AID	46.		1052203.	
TOTAL AID	341.		7790325.	

ALLOCATION TITLE: MO FORMULA W/ LIMITED APPORT AND S-H ID: MOTEST02
REPORT TITLE: AID ALLOCATION DETAIL REPORT

DISTRICT CODE: 115115 DISTRICT NAME: ST. LOUIS CITY

AID PROJECTIONS:

	PER STUDENT UNIT AMOUNTS		DISTRICT TOTAL AMOUNTS	
	PROJECTIONS	BASE YEAR	PROJECTIONS	BASE YEAR
DISTRICT TYPE 1--S W/ AID GAINS				
NUMBER OF STUDENT UNITS			68182.86	
WEALTH BASE	25051.		1708027954.	
WEALTH TIER 2 (NUMERATOR)	28931.		1776484766.	
WEALTH TIER 2 (DENOMINATOR)			61404.	
AIDABLE EXPENDITURE	1883.		128355760.	
MINIMUM AID	0.		0.	
EQUALIZATION AID	813.		55443943.	
TOTAL FORMULA AID	813.	730.	55443943.	49784127.
CATEGORICAL PROGRAMS:				
TRANSP. AID	28.		1933063.	
EXC. PUPIL AID	83.		5672512.	
TOTAL CATEGORICAL AID	112.		7605575.	
TOTAL AID	925.		63049518.	

ALLOCATION TITLE : NO FORMULA W/ LIMITED APPORT AND S-H ID : MOTEST02
REPORT TITLE : AID ALLOCATION STATE SUMMARY REPORT

SUMMARY COUNTS

NUMBER:

TOTAL DISTRICTS	549
DISTRICTS WITH NO PUPILS	0
DISTRICTS WITH NO DISTRIBUTION COUNT	0
DISTRICTS WITH NO WEALTH	0
DISTRICTS WITH NO EXPENSE	0
INVALID DISTRICT TYPES	0
VALID DISTRICTS	549
MINIMUM AID DISTRICTS	1
EQUALIZATION AID DISTRICTS	542
OVER EQUALIZATION CEILING	525
FORMULA AID SAVE HARMLESS	0
NO FORMULA AID	0
CATEGORICAL PROGRAMS:	
TRANSP. AID	545
EXC. PUPIL AID	511
NO AID	0

DISTRICT TYPE DISTRIBUTION

DISTRICT TYPE 1--S W/ AID GAINS	525
DISTRICT TYPE 2--S W/ AID LOSES 8	24

ALLOCATION TITLE : MD FORMULA W/ LIMITED APPORT AND S-H ID : MDLSTO2
REPORT TITLE : AID ALLOCATION STATE SUMMARY REPORT

STATE SUMMARY TOTALS AND UNIT MEANS

	PROJECTIONS		BASE YEAR	
	UNIT MEANS	STATE TOTALS	UNIT MEANS	STATE TOTALS
TOTAL STUDENT UNITS		824745.		
WEALTH BASE	30746.	25357234288.		
WEALTH TIER 2	29115.	24012489095.		
AIDABLE EXPENDITURE	1651.	1361798138.		
MINIMUM AID	7.	5516993.		
EQUALIZATION AID	654.	539678494.		
TOTAL FORMULA AID	661.	545195487.	579.	477734805.
FORMULA AID SAVE HARM	0.	0.		
CATEGORICAL PROGRAMS:				
TRANSP. AID	76.	62487419.		
EXC. PUPIL AID	65.	53475819.		
TOTAL CATEGORICAL AID	141.	115963238.		
TOTAL AID	802.	661158725.		

COST DIFFERENCE SUMMARY

	UNIT MEANS	STATE TOTALS	PERCENT CHANGE
FORMULA AID	82.	67460682.	14.12

ALLOCATION TITLE : MO FORMULA W/ LIMITED APPORT AND S-H ID : MOTEST02
REPORT TITLE : SIMULATED AID REPORT

LISTED BELOW ARE PER STUDENT AMOUNTS. REPORT SEQUENCE IS PROJ TAX BASE . REPORT 1 OF 2. GROUP 1 OF 5.

DISTRICT CODE	DISTRICT NAME	NUMBER OF STUDENTS	PROJECTED TAX BASE	EQUALIZATION AID: PROJECTED (% CHANGE)	BASE YEAR	FORMULA AID: PROJECTED (% CHANGE)	BASE YEAR	TOTAL AID: PROJECTED (% CHANGE)	BASE YEAR
018047	R-II EAST CARTER	764.	6359.	1020.		1020. (15.87)	880.	1291.	
091093	(E) R-IV RIPLEY COUNTY	247.	7214.	891.		891. (8.78)	819.	1040.	
085045	R-V LAQUEY	579.	7548.	979.		979. (20.63)	812.	1192.	
091091	R-II NAYLOR	470.	7754.	910.		910. (19.14)	764.	1098.	
022088	R-I CHADWICK	253.	7810.	1006.		1006. (22.89)	818.	1254.	
005121	R-V SOUTHWEST	667.	7890.	1033.		1033. (16.11)	890.	1256.	
046140	(E) R-XI FAIRVIEW	597.	8251.	1007.		1007. (22.71)	821.	1213.	
101105	R-III WINONA	475.	8759.	999.		999. (13.60)	879.	1210.	
107151	(E) R-VI SUCCESS	233.	8963.	892.		892. (11.38)	801.	1092.	
018050	R-I VAN BUREN	559.	9486.	1027.		1027. (23.74)	830.	1204.	
073105	(E) C-6 WESTVIEW	163.	9785.	1020.		1020. (8.90)	936.	1191.	
046130	[illegible]EW-BIRCH TRE	1293.	[illegible]09.	913.		913. (14.72)	795.	1054.	
091095	[illegible]UNTY	144.	9874.	828.		828. (19.62)	692.	[illegible]03.	
022090	R-III SPARTA	424.	9884.	938.		938. (17.45)	799.	1118.	
078002	R-II HAYTI	1304.	9915.	945.		945. (15.93)	815.	1004.	
022094	R-VII SPOKANE	394.	10279.	874.		874. (21.33)	721.	1104.	
046132	(E) R-IV RICHARDS	395.	10353.	1042.		1042. (16.90)	891.	1230.	
046131	R-IV WILLOW SPRINGS	1223.	10421.	889.		889. (15.74)	768.	1065.	
075086	R-III KOSHKONONG	273.	10433.	1031.		1031. (12.84)	913.	1228.	
005126	(E) 35 JENKINS	109.	10434.	994.		994. (14.59)	867.	1156.	
085046	R-VI HAYNESVILLE	2103.	10555.	922.		922. (14.85)	803.	1187.	
081097	(E) R-III PHELPS COUNTY	362.	10610.	927.		927. (16.12)	798.	1193.	
090075	(E) R-I CENTERVILLE	174.	10650.	1109.		1109. (14.09)	972.	1302.	
111086	R-II GREENVILLE	835.	10733.	1016.		1016. (13.63)	894.	1251.	

ALLOCATION TITLE : MO FORMULA W/ LIMITED APPORT AND S-H ID : MOTEST02
REPORT TITLE : SIMULATED AID REPORT

LISTED BELOW ARE PER STUDENT AMOUNTS. REPORT SEQUENCE IS PROJ TAX BASE . REPORT 1 OF 2. GROUP 1 OF 5.

DISTRICT CODE	DISTRICT NAME	NUMBER OF STUDENTS	PROJECTED TAX BASE	EQUALIZATION AID: PROJECTED	BASE YEAR (% CHANGE)	FORMULA AID: PROJECTED	BASE YEAR (% CHANGE)	TOTAL AID: PROJECTED	BASE YEAR (% CHANGE)
005124	R-II PURDY	490.	10865.	1020.		1020.	908.	1214.	
						(12.32)			
077101	R-IV BAKERSFIELD	277.	10954.	908.		908.	747.	1100.	
						(21.51)			
03[illegible]95	R-II NEWBURG	556.	10977.	1050.		1050.	945.	1256.	
						(11.03)			
07[illegible]57	R-IV ALTON	876.	10982.	940.		940.	808.	1121.	
						(16.24)			
0[illegible]0137	(E) C-12 JUNCTION HILL	274.	10982.	[illegible]1.		931.	754.	1162.	
						(23.53)			
005122	R-IV EXETER	272.	11031.	909.		909.	763.	1025.	
						(19.25)			
091092	R-I DONIPHAN	1486.	11031.	913.		913.	833.	1065.	
						(9.65)			
085049	R-II PULASKI COUNTY	526.	11101.	953.		953.	879.	1141.	
						(8.43)			
046135	(E) R-VIII GLENWOOD	308.	11115.	1012.		1012.	875.	1183.	
						(15.58)			
110014	(E) KINGSTON	661.	11158.	959.		959.	843.	1138.	
						(13.81)			
111087	R-I CLEARWATER	1172.	11262.	980.		980.	820.	1168.	
						(19.47)			
039142	R-X FAIR GROVE	895.	11271.	939.		939.	795.	1105.	
						(18.07)			
070012	18 CARUTHERSVILLE	1833.	11289.	953.		953.	823.	992.	
						(15.73)			
114112	R-I NORWOOD	276.	11301.	980.		980.	771.	1145.	
						(27.08)			
[illegible]	R-VI[illegible] COUNTY	1166.	11336.	947.		947.	850.	1086.	
						(11.46)			
114113	R-II HA[illegible]	807.	11518.	947.		947.	821.	1138.	
						(15.27)			
106002	(E) R-II TANEYVILLE	201.	11531.	822.		822.	689.	961.	
						19.34)			
112101	R-III FORDLAND	514.	11534.	916.		[illegible]16.	788.	1119.	
						[illegible]73)			
035092	R-I MALDEN	1788.	11558.	878.		878.	760.	1007.	
						(15.57)			
047064	(E) R-III BELLEVIEW	293.	11570.	811.		811.	729.	960.	
						(11.20)			
107153	R-II SUMMERSVILLE	650.	11613.	856.		856.	766.	1028.	
						(11.70)			
034122	(E) R-VIII PLAINVIEW	108.	11619.	856.		856.	680.	1061.	
						(25.79)			
114115	R-IV MANSFIELD	767.	11727.	812.		812.	706.	947.	
						(14.70)			
046129	(E) C-2 PEACE VALLEY	64.	11742.	978.		978.	920.	1179.	
						(6.30)			

ALLOCATION TITLE : MO FORMULA W/ LIMITED APPORT AND S-H ID : MOTEST02
REPORT TITLE : SIMULATED AID REPORT

LISTED BELOW ARE PER STUDENT AMOUNTS. REPORT SEQUENCE IS PROJ TAX BASE . REPORT 1 OF 2. GROUP 1 OF 5.

DISTRICT CODE	DISTRICT NAME	NUMBER OF STUDENTS	PROJECTED TAX BASE	EQUALIZATION AID: PROJECTED (% CHANGE)	BASE YEAR	FORMULA AID: PROJECTED (% CHANGE)	BASE YEAR	TOTAL AID: PROJECTED (% CHANGE)	BASE YEAR
036136	R-XIII ST. CLAIR	1680.	18060.	779.		779. (16.24)	670.	963.	
050010	C-1 WINDSOR	1934.	18152.	913.		913. (15.99)	787.	1160.	
094086	R-III ST. FRANCOIS COUNTY	1914.	18166.	825.		825. (16.27)	710.	979.	
103135	R-XIII BERNIE	798.	18170.	741.		741. (12.79)	657.	889.	
036133	(E) R-XIV LONEDELL	515.	18229.	797.		797. (17.08)	681.	1043.	
062070	R-VI MARQUAND	245.	18403.	958.		958. (10.88)	864.	1231.	
039134	R-III REPUBLIC	2024.	18425.	693.		693. (12.51)	616.	858.	
062072	R-I FREDERICKTOWN	1705.	18448.	773.		773. (18.36)	653.	922.	
033090	R-80 SALEM	1093.	18466.	791.		791. (18.90)	666.	924.	

GROUP 1 STATISTICS

DISTRICT COUNT	177						
DISTRICTS GAINING AID				177			
DISTRICTS LOSING AID				0			
DISTRICTS NO CHANGE				0			
STUDENT COUNT	165145.						
STUDENTS GAINING AID				165147.			
STUDENTS LOSING AID				0.			
STUDENTS NO CHANGE				0.			
WEIGHTED MEANS		14797.	872.	872. (16.30)	749.	1043.	
PERCENT CHANGE							
STANDARD DEVIATION		2701.	74.	74.	64.	91.	
COEFFICIENT OF VARIATION		0.183	0.084	0.084	0.085	0.087	
MINIMUM VALUE		6359.	693.	693.	560.	858.	
MAXIMUM VALUE		18466.	1109.	1109.	972.	1337.	

LISTED BELOW ARE PER STUDENT AMOUNTS. REPORT SEQUENCE IS PROJ TAX BASE . REPORT 1 OF 2. GROUP 5 OF 5.

		PROJECTED TAX BASE	EQUALIZATION AID: PROJECTED	EQUALIZATION AID: BASE YEAR	FORMULA AID: PROJECTED	FORMULA AID: BASE YEAR	TOTAL AID: PROJECTED	TOTAL AID: BASE YEAR
GROUP 5 STATISTICS								
DISTRICT COUNT	70							
DISTRICTS GAINING AID					50			
DISTRICTS LOSING AID					17			
DISTRICTS NO CHANGE					3			
STUDENT COUNT	174956.							
STUDENTS GAINING AID					115709.			
STUDENTS LOSING AID					55746.			
STUDENTS NO CHANGE					3501.			
WEIGHTED MEANS		54456.	343.		373.	361.	486.	
PERCENT CHANGE					(3.67)			
STANDARD DEVIATION		24217.	126.		75.	58.	98.	
COEFFICIENT OF VARIATION		0.445	0.367		0.201	0.160	0.202	
MINIMUM VALUE		40418.	0.		285.	259.	308.	
MAXIMUM VALUE		193309.	533.		533.	527.	886.	
STATE SUMMARY STATISTICS								
DISTRICT COUNT	549							
DISTRICTS GAINING AID					528			
DISTRICTS LOSING AID					18			
DISTRICTS NO CHANGE					3			
STUDENT COUNT	824745.							
STUDENTS GAINING AID					765479.			
STUDENTS LOSING AID					55765.			
STUDENTS NO CHANGE					3501.			
WEIGHTED MEANS		30746.	654.		661.	579.	802.	
PERCENT CHANGE					(14.12)			
STANDARD DEVIATION		17886.	203.		188.	152.	210.	
COEFFICIENT OF VARIATION		0.582	0.311		0.284	0.263	0.261	
MINIMUM VALUE		6359.	0.		285.	259.	308.	
MAXIMUM VALUE		193309.	1109.		1109.	1473.	1337.	

STATE SUMMARY STATISTICS

ALLOCATION TITLE : NO FORMULA W/ LIMITED APPORT AND S-H ID : NOTEST02
REPORT TITLE : SIMULATED AID REPORT

LISTED BELOW ARE PER STUDENT AMOUNTS. REPORT SEQUENCE IS PROJ TAX BASE . REPORT 1 OF 2.

SUMMARY TABLE OF WEIGHTED MEANS
TOTAL NUMBER OF DISTRICTS: 549

PUPIL GROUP	RANGE OF PROJ TAX BASE	PROJECTED TAX BASE	EQUALIZATION AID: PROJECTED	EQUALIZATION AID: BASE YEAR	FORMULA AID: PROJECTED	FORMULA AID: BASE YEAR	TOTAL AID: PROJECTED	TOTAL AID: BASE YEAR
1.	6359. - 18466.	14797.	872.		872.	749.	1043.	
2.	18472. - 24973.	22208.	756.		756.	645.	914.	
3.	25051. - 29297.	26052.	730.		730.	637.	867.	
4.	29364. - 40344.	34147.	597.		597.	522.	727.	
5.	40418. - 193309.	54456.	343.		375.	361.	486.	
STATE AVERAGE	6359. - 193309.	30746.	654.		661.	579.	802.	

ALLOCATION TITLE : MO FORMULA W/ LIMITED APPORT AND S-H ID : MOTEST02
REPORT TITLE : SIMULATED AID REPORT

LISTED BELOW ARE DISTRICT A... REPORT SEQUENCE IS CODE NUMBER . REPORT 2 OF 2.

DISTRICT CODE	DISTRICT NAME	NUMBER OF STUDENTS	PROJECTED TAX BASE	EQUALIZATION AID: PROJECTED	BASE YEAR (% CHANGE)	FORMULA AID: PROJECTED	BASE YEAR (% CHANGE)	TOTAL AID: PROJECTED	BASE YEAR (% CHANGE)
001090	R-I ADAIR COUNTY	423.	6069881.	387151.		387151.	339823.	477804.	
						(13.93)			
001091	R-III KIRKSVILLE	2555.	77136035.	1540645.		1540645.	1313551.	2112216.	
						(17.29)			
001092	R-II ADAIR COUNTY	287.	6514013.	197433.		197433.	163963.	271921.	
						(20.41)			
002089	R-IV NORTH ANDREW	308.	7676524.	243749.		243749.	208006.	318707.	
						(17.18)			
002090	(E) R-IX AVENUE CITY	124.	3246362.	88672.		88672.	74090.	121686.	
						(19.68)			
002091	C-1 FILLMORE	116.	4322539.	59066.		59066.	51938.	90473.	
						(13.72)			
002097	R-III SAVANNAH	2083.	44398222.	1511490.		1511490.	1263750.	1823025.	
						(19.60)			
003031	R-I TARKIO	520.	22886434.	223421.		223421.	202534.	338108.	
						(10.31)			
003032	R-II ROCK PORT	652.	29034315.	254817.		254817.	218042.	370333.	
						(16.87)			
003033	R-III FAIRFAX	263.	14529728.	80305.		80305.	78903.	132449.	
						(1.78)			
003034	(E) R-IV WESTBORO	111.	7832881.	9202.		32117.	30925.	48122.	
						(3.85)			
004106	R-IV COMMUNITY	502.	15821673.	308840.		308840.	268351.	402881.	
						(15.09)			
004109	R-I VANDALIA	960.	25654625.	600776.		600776.	522783.	765349.	
						(14.92)			
004110	59 MEXICO	2898.	84904804.	1763062.		1763062.	1503320.	2123174.	
						(17.28)			
005120	R-III WHEATON	329.	3943342.	347624.		347624.	298192.	415791.	
						(16.58)			
005121	R-V SOUTHWEST	667.	5264154.	689156.		689156.	593541.	837824.	
						(16.11)			
005122	R-IV EXETER	272.	2998670.	247210.		247210.	207302.	278625.	
						(19.25)			
005123	R-IV CASSVILLE	1163.	17941393.	995965.		995965.	853097.	1212512.	
						(16.75)			
005124	R-II PURDY	490.	5327247.	500221.		500221.	445348.	595171.	
						(12.32)			
005126	(E) 35 JENKINS	109.	1137758.	108345.		108345.	94552.	126319.	
						(14.59)			
005127	(E) 78 SHELL KNOB	194.	5751549.	114014.		114014.	98238.	158159.	
						(16.06)			
005128	R-I MONETT	1480.	24540285.	1153732.		1153732.	977284.	1317433.	
						(18.05)			
006101	R-II LIBERAL	483.	15151383.	225755.		225755.	171922.	324625.	
						(31.31)			
006103	R-III GOLDEN CITY	309.	9299968.	163224.		163224.	131451.	223802.	
						(24.17)			

ALLOCATION TITLE : MO FORMULA W/ LIMITED APPORT AND S-H ID : MOTEST02
REPORT TITLE : SIMULATED AID REPORT

LISTED BELOW ARE DISTRICT AMOUNTS. REPORT SEQUENCE IS CODE NUMBER . REPORT 2 OF 2.

DISTRICT CODE	DISTRICT NAME	NUMBER OF STUDENTS	PROJECTED TAX BASE	EQUALIZATION AID: PROJECTED	BASE YEAR	(% CHANGE)	FORMULA AID: PROJECTED	BASE YEAR	(% CHANGE)	TOTAL AID: PROJECTED	BASE YEAR	(% CHANGE)
006104	R-I LAMAR	1092.	29279425.	660721.			660721.	547386.	(20.70)	816628.		
007121	R-I MIAMI	336.	8906828.	230092.			230092.	198762.	(15.76)	311246.		
007122	R-II BALLARD	154.	4450832.	107447.			107447.	91274.	(17.72)	140957.		
007123	R-II ADRIAN	550.	10683054.	452230.			452230.	394247.	(14.71)	530017.		
007124	R-IV RICH HILL	468.	10281715.	368550.			368550.	313462.	(17.57)	430664.		
007125	R-VIII HUME	148.	4218237.	118424.			118424.	104917.	(12.87)	148318.		
007126	(E) R-IX HUDSON	110.	3467753.	60602.			60602.	47612.	(27.28)	77121.		
007129	R-V BUTLER	985.	25933911.	672042.			672042.	578023.	(16.27)	783997.		
008106	R-II LINCOLN	473.	12303195.	291616.			291616.	249292.	(16.98)	386397.		
008107	R-IX WARSAW	888.	23931450.	521374.			521374.	434209.	(20.07)	681866.		
008110	R-IX X BENTON COUNTY	53.	2231297.	25142.			25142.	24292.	(3.50)	34220.		
008111		686.	16704891.	404365.			404365.	321617.	(25.73)	526701.		
009077	R-II MEADOW HEIGHTS	525.	8476496.	422233.			422233.	376465.	(12.16)	573273.		
009078	R-III LEOPOLD	166.	2001866.	150482.			150482.	124529.	(20.84)	167962.		
009079	R-V ZALMA	328.	4472154.	272469.			272469.	231371.	(17.76)	373798.		
009080	R-IV WOODLAND	916.	14454202.	722553.			722553.	634547.	(13.87)	924825.		
010087	R-I SOUTHERN BOONE COUNTY	672.	12539046.	623846.			623846.	551877.	(13.04)	747310.		
010089	R-IV BOONE COUNTY	912.	11745376.	863132.			863132.	712541.	(21.13)	1019626.		
010090	R-V BOONE COUNTY	334.	6273954.	264458.			264458.	209201.	(26.41)	326380.		
010091	R-VI CENTRALIA	1229.	29274224.	854369.			854369.	742242.	(15.11)	1010142.		
010092	R-VIII HARRISBURG	424.	6214260.	400022.			400022.	349102.	(14.59)	493039.		
010093	93 COLUMBIA	10427.	312302766.	6459124.			6459124.	5306393.	(21.72)	8423527.		
010096	(E) C-7 MIDWAY HEIGHTS	416.	9544367.	317444.			317444.	256950.	(23.54)	410541.		
011076	C-1 EAST BUCHANAN	861.	20279061.	616319.			616319.	538171.	(14.52)	763910.		

ALLOCATION TITLE : MO FORMULA W/ LIMITED APPORT AND S-H ID : MOTEST02
REPORT TITLE : SIMULATED AID REPORT

LISTED BELOW ARE DISTRICT AMOUNTS. REPORT SEQUENCE IS CODE NUMBER . REPORT 2 OF 2.

		PROJECTED TAX BASE	EQUALIZATION AID: PROJECTED	EQUALIZATION AID: BASE YEAR	FORMULA AID: PROJECTED	FORMULA AID: BASE YEAR	TOTAL AID: PROJECTED	TOTAL AID: BASE YEAR
STATE SUMMARY STATISTICS								
DISTRICT COUNT	549							
DISTRICTS GAINING AID					528			
DISTRICTS LOSING AID					18			
DISTRICTS NO CHANGE					3			
STUDENT COUNT	824745.							
STUDENTS GAINING AID					765479.			
STUDENTS LOSING AID					55765.			
STUDENTS NO CHANGE					3501.			
UNWEIGHTED MEANS		4618804I.	983021.		993070.	870191.	1204296.	
PERCENT CHANGE					(14.12)			
STANDARD DEVIATION		148328124.	2815332.		2818348.	2528114.	3270437.	
COEFFICIENT OF VARIATION		3.211	2.864		2.838	2.905	2.716	
MINIMUM VALUE		655536.	0.		7879.	10944.	11051.	
MAXIMUM VALUE		1843960818.	55443943.		55443943.	49784127.	63049518.	

STATE SUMMARY STATISTICS

ATTACHMENT D

SCHOOL FINANCE EQUALIZATION MANACEMENT SYSTEM

AN

OVERVIEW

April 1977

Introduction

An effective information system should provide answers to users' questions as precisely and clearly as possible. The School Finance Equalization Management System (SFEMS) allows the user to create a research design with a maximum of individual control and a minimum of system restrictions. The user has the ability both to frame the research question, and to determine the shape of the resulting output. The value judgments on which the design of the research is based are those of the user, not those imposed by the developers of the system.

SFEMS is composed of three components or phases, and two types of data files. The independence of SFEMS' three phases increases the system's flexibility. Although most research designs will employ all three phases, a user need invoke only the phase or part of a phase which is required to obtain the desired information.

What Can You Do With SFEMS?

SFEMS' fundamental application is to school finance research. The system can be used to answer a wide range of questions. Among them are:

What is the pattern of aid distribution under your present school funding law?

What proportions go to cities, suburbs, rural areas?

Do districts making a greater tax effort receive recognition? Or is spending related primarily to the wealth of the community?

Does the law concentrate funds on existing and/or potential educational problems?

Is your present school funding law in accordance with current legal concepts of equity in taxation and equality of opportunity in educational resources?

What alternative approaches are available? How will they affect the taxation and expenditures of particular districts?

School finance study, however, is not the only use for SFEMS. Since SFEMS' phases are independent, the potential uses are not limited to the traditional school finance concerns of raising and distributing funds for public education. The user may choose to design a data file which includes data elements suitable for other types of related analysis. For example, information could be included on local district budget allocations, results of student assessment programs, and a district's physical needs or equipment utilization.

Features of SFEMS

SFEMS has been designed to facilitate user control. The user instructs the system by means of a standard syntax; each instruction activates a particular option of SFEMS. Some of the options available in the system are:

1) multiple definitions of wealth, effort, and need;
2) dynamic specification of pupil weightings;
3) minimums/maximums;
4) dynamic specification of local district response behavioral assumptions both before a new plan is implemented and longitudinally;
5) longitudinal predictions;
6) multiple layouts of analyses;
7) benchmark studies which show both dollar and percentage changes in aid;
8) proportional reduction of aid;
9) counts of districts receiving aid under minimums, equalization, save-harmless and categorical programs;
10) percentiles, frequency distributions, sequenced listings, summary statistics, measures of equity such as McLoone Index and Gini coefficient.

Overview of the System

SFEMS is composed of three independent phases: Data Collection, Aid Allocation and Analysis. The function of the Data Collection Phase is the collection and storage of data. The General File -- one of SFEMS' two kinds of data files -- is the product of this Phase. Since the Data Collection Phase is independent of the rest of the system, the General File can be modified or updated whenever desired.

In the Aid Allocation Phase, alternative school finance plans are simulated and new expenditure levels and tax rates can be predicted. The data generated during the course of the Aid Allocation Phase are stored in Allocation Files. This is the second type of data file. A separate Allocation File is created for each allocation alternative. The data within these files are available for use both in the Allocation Phase itself and in the third phase of the system, the Analysis Phase.

In the Analysis Phase, allocation alternatives can be compared and evaluated by means of a number of statistical and analytic techniques. Each allocation alternative can be evaluated by using a wide range of criteria. This component is not necessarily the last step in a study; in fact, use of the Analysis Phase will quite frequently precede use of the Allocation Phase.

Since the three phases of SFEMS are independent, they are used in the sequence and combination which are appropriate to the research question under study. For example, a user may wish to examine these research questions in the following sequence: 1) the present level of inequalities among district wealth, effort and need; 2) the effect of the present state aid system in overcoming these inequalities; 3) the