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ABSTRACT

The combination of defeated bond issues and rising building costs is contributing to a decline in both the construction of new school buildings and the remodeling of existing buildings. For the first time in many years, debt service and capital outlay expenditures actually declined on a per pupil basis. No change in either voter preferences or inflationary trends appear imminent. If needed school facilities are to be built, it is clear that alternative means of financing school construction must be found. Solutions to the problem of financing school construction have been suggested by several experts in the field. The most thorough analyses of the problem have been made by the National Educational Finance Project and the Educational Facilities Laboratories. These and other analyses are reviewed along with bibliographies on the subject. Nine of the documents contained in this review are available through the ERIC Document Reproduction Service. (Author)

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Number 12

## Financing School Construction

Philip K. Piele

In the good old days of the soaring sixties it was natural to place importance on design and planning to improve the quality of educational facilities. The concern with design and planning was tempered by the realities of construction costs, but nevertheless it was assumed that money was available for school and college buildings. Now, in the sagging seventies, the priorities are rearranged so that getting money together has become a prime concern for most educational administrators.

*Educational Facilities Laboratories (1971)*

Despite recent evidence that school enrollments are beginning to decline throughout the country, many school districts still face the problem of trying to house more students than their schools can adequately accommodate. Normal building deterioration, new curriculum innovations, and expanded career education needs are among the pressures requiring districts to try to raise money for building new facilities. Unfortunately, money for new facilities is becoming increasingly difficult to come by.

Each year since the mid-1960s, voter support for school bond issues has declined. In 1971, more than half of the school bond proposals set before the voters were defeated (see Piele 1972).

Another factor taking a heavy toll on school construction is inflation. According to a cost of building index in the September 1972 issue of *School Management*, the increase in building costs has been progressively greater each year since 1962.

This combination of defeated bond issues and rising building costs is contributing to a decline in both the construction

of new school buildings and the remodeling of existing buildings. For the first time in many years, debt service and capital outlay expenditures actually declined on a per-pupil basis: 16 percent for debt service and 4 percent for capital outlay.

No changes in either voter preferences or inflationary trends appear imminent. If needed school facilities are to be built, it is clear that alternative means of financing school construction must be found. Solutions to the problem of financing school construction have been suggested by several experts in this field. The most thorough analyses of the problem have been made by the National Educational Finance Project and the Educational Facilities Laboratories, Inc.

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### CAPITAL OUTLAY PROGRAMS

The National Educational Finance Project has been described as the "first significant attack on the nationwide problems of financing public schools since the early 1930s." NEFP has sponsored a number of in-depth "satellite" studies, one of which was the National Capital Outlay Project. The findings of this special study are published in a report entitled *Financing Public Elementary and Secondary School Facilities in the United States* (Barr and others 1970).

The purpose of the National Capital Outlay Project was to generate several models that could be used by states in allocating loans or grants for the construction of public elementary and secondary schools. As a step toward meeting this objective, the study examined prevailing economic trends and funding capabilities of local, state, and federal governments.\*

Authors of the study discuss postwar trends in public school construction finance and detail state and local provisions for such construction. Against this background, they also highlight changes in the national economy and suggest ways of better coordinating all levels of government to ensure

consistent and equitable fiscal policies throughout the nation. They emphasize the need for immediate co-operative action by local, state, and federal agencies. Project research indicates that without such action, a combination of judicial decisions, voter reaction to property taxes, and general socioeconomic inequities will enforce a virtual moratorium on school construction—at a time when the nation urgently needs well-planned and vigorous advancement in all aspects of education.

For reasons vital to the economy as well as to national educational interests, the study urges development of a revenue system for supporting debt that "incorporates both the stability of the property-based

\*Many of the project's recommendations concerning fiscal policy and the distribution of school financial assistance among the various levels of government coincide with the recommendations of the President's Commission on School Finance. Copies of the commission's report, *Schools, People, & Money: The Need for Educational Reform*, are available from the U. S. Government Printing Office (see References).

A five-page review (Piele 1972) of the commission's report was published by the ERIC Clearinghouse on Educational Management in *R & D Perspectives*, spring 1972.

tax and the responsiveness of the income-based tax" (p. 49). To alleviate school budgetary demands on local property taxes, Barr and his colleagues recommend that the federal government make grants to state and local governments to assist them in facilities planning. As the authors point out, the federal income tax is a progressive tax designed to grow at a rate faster than the gross national product and therefore faster than any other source of income.

In the wake of recent court cases challenging the use of property taxes for school support, reform of state and local revenue sources for education may indeed be imminent. Whether federal assistance will be forthcoming remains to be seen. In the meantime, until more money becomes available for school construction, Barr and his colleagues urge the local planner to take advantage of savings opportunities throughout the planning process. Such opportunities include minimizing exterior perimeters, using modular components, avoiding unusual design features interfering with economical heating, ventilating, or lighting, and taking advantage of purchasing consortia for quantity buying of equipment and furnishings.

Significant savings in the design and construction of a school building can be realized by combining a number of activities occurring throughout the planning process. For this reason, the authors recommend use of systems building techniques like those employed by California's School Construction Systems Development Project (SCSD). Use of such computer-based systems planning techniques permits incorporation of long-range fiscal policies and educational objectives in a unified construction program that is cost-effective as well as sensitive to educational needs (see Baas 1972).

The report also cites instances in which

lease or sale of "air rights" (rights to occupy the air space over the building) and experimentation with joint occupancy have enabled some school districts to meet their building needs despite overwhelming financial limitations on capital outlay expenditures.

After examining existing capital outlay procedures, the study summarizes unrealistic constitutional and statutory constraints on local district financing, identifies situations in which current support programs are unresponsive to real needs of districts, and points out typical problem areas in which responsible, flexible administration of capital outlay programs is impeded.

To provide a perspective for educators and legislators involved in fiscal planning, the authors propose nine basic concepts vital to the development and administration of capital outlay programs:

1. The primary purpose of school facility financing programs is to provide funds for housing educational programs which will meet the diverse needs of the total school population.
2. The state has the primary responsibility for establishing school facility standards.
3. Educational facility needs are derived from locally-determined, state-approved educational programs.
4. A mixture of federal-state-local funding is necessary. Interstate and intra-state variations in facility needs and fiscal capacity must be accommodated in allocation procedures.
5. Retention of fiscal leeway is a necessary condition for the proper functioning of any school facility financing program, whether the source of funds be local, state, or Federal.
6. Equalization through intergovernmental grants-in-aid is an essential feature of viable capital outlay programs. State loan funds and building authorities can be used

to enable fiscally distressed districts to meet immediate facility needs. Emergency allocations for relief of distressed districts and similar stop-gap measures only provide temporary relief, and should not be considered as an adequate state plan.

7. Permissive short- and long-term borrowing from varied governmental and non-governmental sources and appropriations from all levels of government are options which must be available to local districts in planning facility financing programs.
8. Long-range planning for constructing and financing school facilities is an essential element in fiscally sound local school district construction programs.
9. Provisions of school facility financing programs should be responsive to changing economic and sociological conditions, but also should be sufficiently stable and predictable to facilitate long-range planning.

*Barr and others (1970)*

For these concepts to be implemented, functional responsibilities among local, state, and federal governments must be clarified. The authors identify major responsibilities for each level of government. The federal government should assume responsibility for maintaining broad-based and continuing financial assistance for school construction. Whenever necessary, particular attention should be given to those areas in which state assistance falls short of real district needs. Because of its access to progressive income tax revenues, the federal government is seen to be in the best position for providing substantial financial assistance at this time.

State involvement, according to the authors, should reflect the principle that the primary responsibility for education lies with the states. Accordingly, the authors detail a number of educational, fiscal, and administrative interests required for effective state programs. Local districts should

retain the major responsibility for planning and constructing school facilities, but must operate within a system of accountability to the state.

The study concludes by proposing eight alternative programs for financing public school facilities:

- Variable Grants Computed on Recognized Project Costs
- Combination of Grants and Loans Based on Recognized Project Costs
- State and/or Federal Loans for Recognized Project Costs
- Variable Incentive Grants Computed on Locally Determined Cost of Project
- State and/or Federal Assumption of School Building Costs
- Grants and Metropolitan Area Financing for Recognized Project Costs
- Variable Grants Computed on the Basis of a Pupil or Instructional Unit
- Equalized Grants for Recognized Debt Service Programs

Each program identifies relevant measurements of need, allocation methods, uses of proceeds, and funding sources. Additional information details operating procedures, positive and negative features, and adaptations for modifying, restricting, or expanding the program. All the programs reflect a general preference for federal and state grants-in-aid over any type of loan program. Two appendixes provide additional information concerning state plans for financing capital outlay and debt service and list projections of state and local revenues and expenditures and federal grants.

#### EFL REPORTS ON FINANCING ALTERNATIVES

Recognizing that many school districts are having difficulties financing needed con-

struction under conventional capital outlay programs, the Educational Facilities Laboratories, Inc. (EFL) (1971) provides capsule reports on eight alternative financing methods used successfully by local districts.

*Pay-as-you-go financing.* Money to pay cash for all construction can be obtained through one-time levies approved by voters and through accumulating money in reserve funds. This method may have limited usefulness, however. Not only does voter approval of one-time levies today seem highly uncertain, but many districts are restricted by law as to the amount of money they can accumulate in a reserve fund. Other methods for raising cash are discussed in subsequent plans.

*State aid.* Two forms of state aid predominate: grants-in-aid (gifts from state to school district) and state loan programs (construction loans in lieu of selling bonds on the open market). State grants and loans seldom provide the full amount needed to construct a facility; therefore, they are usually regarded as supplemental to local funds. EFL identifies states with grant programs, but does not specify the programs' qualifications, which vary from state to state.

*Federal aid.* At the time EFL wrote its publication (1971), the only major federal assistance program giving funds directly for school construction was administered by the U.S. Office of Education, Division of School Assistance for Federally Affected Areas, School Construction Branch. Under this program, "impact aid" is given to federally affected areas (areas where presence of government installations adds children to school rolls). Other federal programs offer indirect aid for site acquisition, planning, and other special uses.

*Reducing site costs.* Noting that total construction costs can be lowered from 10

to 25 percent through reduction or elimination of site expenses, EFL discusses use of urban renewal credits and air rights over public land as possible methods of avoiding site acquisition costs.

*Shared facilities.* School districts and other community agencies may cooperate in building a common, shared facility. This can be done in three ways. First, the school district can build the facility and lease it to other agencies, using the income to offset capital and operating expenses. Although the district does not benefit financially, the city avoids the cost of duplicate facilities. Second, the school district can ask the other agency to build the facility in conjunction with a new school. This plan reduces the capital cost and is attractive to districts with tight capital budgets. A third option is to share first costs based on expected pro rata usage.

Cooperative use of the same facility can reduce the district's construction and maintenance costs, while providing, within the same physical structure, a range of public services in addition to education. EFL lists some prospective local, county, and state agencies willing to share facilities and discusses three methods of working out cost-sharing formulas.

*Nontax revenue.* Unable to raise money through more conventional methods, some school districts have sold or exchanged land, sold or leased ground rights and air rights, or proposed to build rentable space in conjunction with school facilities. Since these methods pose special legal and political problems for the district, EFL urges caution in exploring such alternatives and recommends seeking legal counsel and testing local opinions as necessary preliminary steps.

*Bond issues.* The sale of term or serial issue general obligation bonds is a traditional

source of revenue for school construction. EFL briefly discusses both types of bonds, together with the legality of assuming more debt, qualifications for state loans, selling bonds on the open market, and voter approval of bond issues. To forestall voter opposition, EFL recommends the school system adequately demonstrate the need for facilities by clearly informing the public about existing facilities and the specific needs to be met by new construction.

*Leasing.* The EFL report discusses the two kinds of leasing programs, short-term and long-term, each with its own objectives. Attention is given to the implications of leasing from building commissions, non-profit corporations, and private organizations and to the establishment of workable procedures for site acquisition, programming, design, bidding, construction, operations, and maintenance.

The document concludes with eleven case studies showing how individual districts have used various financing alternatives. An accompanying chart illustrates the decision-making routes that have led school districts to adopt one approach or a combination of approaches to solve their facilities needs. For additional information, extensive references are given throughout the text.

The second EFL-sponsored survey of alternatives to construction finance (Fitzgibbon and others 1971) focuses particularly on the legal and fiscal restrictions of the St. Louis, Missouri, public school system. After discussing the St. Louis school system and its financial history, the authors survey both traditional and innovative financing alternatives that have been used across the country. These alternatives fall into two categories: methods in which money flows into the system from outside sources and methods

in which money flows from the action of constructing the school.

The first category includes conventional financing through tax incomes (either general obligation bonds or tax levies) and use of special taxes such as those on gambling, sales, or lotteries. Also included are state and federal aid programs (either grants or low-interest loans) and use of city development sources relating to federal programs for urban renewal and aid to impacted areas.

In the second category, methods that generate money in connection with the actual construction of school buildings include less conventional financing alternatives subject to a wide variety of restrictions from state to state. Among these are shared-occupancy and leasing of air rights and/or school facilities. These methods may also permit using revenue bonds (if income from capital expenditures is expected to pay off the bonds) on a wider scale. Traditionally, revenue bonds have been used for income-producing facilities such as swimming pools and stadiums, but with new methods for leasing and sharing space such income might also be obtained from other educational facilities.

Other methods in the second category are land speculation, use of building commissions, and leasing from public and private corporations. Land speculations may be particularly rewarding in urban areas where land values are high. By trading a school site already owned by the district for a site of equal educational, but lesser economic, value, moneys may be obtained for constructing needed facilities.

The authors used a computer program to summarize the complex transactions that are potential between a school board, the city, the state, and Federal Government, public corporations, private developers, and

money sources." Six broad hypothetical plans were selected from the computer results:

- creation of a special school-construction district within the overall boundaries of the school district
- deeding school property to a public corporation and then leasing it back after it is improved
- purchase of improvements over a prolonged period of time
- acquisition of urban renewal land, part of which is then used for school functions and part of which is leased
- lease-purchase
- voter approval of lease-purchase

Relevant procedural and legal information is included in the discussion of each plan. The authors conclude that lease-purchasing plans, while currently subject to many legal and statutory restrictions, suggest the most promising solutions to St. Louis's educational facilities needs.

#### OTHER FINANCING PLANS

Two reports by Barr (1969a and b) outline methods used by school districts to obtain building funds when normal bonding channels are blocked because the districts have reached their maximum-legal indebtedness. One method is the issuing of school construction bonds by state or local public schoolhousing authorities. The authorities finance and supervise construction of a school and then lease the building to the district. Rents collected by the authority serve to repay the debt. Ownership of the school building normally passes to the school district on retirement of the authority bond and the meeting of any other fiscal obligations. Barr points out, however, that such bonds usually carry higher interest rates than other bonds.

Under the second method, another governmental unit (the state, county, city, town, or township) issues general obligation and other bonds to finance the school building. In some cases, bonds are redeemed through the use of special revenues such as motor vehicle taxes.

The Philadelphia School District ([1969]) presents its long-range plan for school facilities together with capital programs based on the plan for fiscal years 1970 through 1975. An essential aspect of the plan is the consideration of construction subsidies from special federal, state, and other sources. Whenever possible, lower site acquisition and demolition costs are secured through cooperation with local urban renewal programs. In addition, Philadelphia officials are seeking state legislation to increase the maximum school construction costs for which the state will reimburse the school district over the life of a bond issue.

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## RESEARCH HIGHLIGHTS

Without immediate cooperative action by local, state, and federal agencies, a combination of judicial decisions, voter reaction to property taxes, and general socio-economic inequities will enforce a virtual moratorium on school construction. *Barr and others (1970)*

The optimum revenue system for supporting educational debt should incorporate the stability of the property-based tax and the responsiveness of the income-based tax. *Barr and others (1970)*

The concepts of shared facilities and leasing of air rights promise significant school site and construction economics. *EFL (1971) and Fitzgibbon and others (1971)*

Districts whose normal bonding channels are blocked may obtain needed buildings by leasing them from a schoolhousing authority. *Barr (1969a and b)*

Site acquisition and demolition costs may be lowered through cooperation with local urban renewal programs. *Philadelphia School District ([1969])*

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