A comprehensive program for finance reform of the Texas school system based on an analytical paradigm that encompasses adequacy, equity, and efficiency considerations is introduced. Topics such as the development of the Texas conceptual model, the structural elements of the allocation model, and the development of the revenue-raising system are also discussed. The analytical model based on core characteristics of a school finance program, a philosophical equity hierarchy, and the nexus of school finance goals and structural elements is compared with the proposed comprehensive model. Features of the proposed model include local property tax relief, implementation of a state income tax, and increased state revenues. Five tables are included in the text. (35 references) (LMI)
ACHIEVING ADEQUACY, EQUITY, 
AND EFFICIENCY IN TEXAS
PUBLIC SCHOOL FINANCE:
A COMPREHENSIVE PROPOSAL
AND ANALYTICAL MODEL

Billy D. Walker
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ACHIEVING ADEQUACY, EQUITY, AND EFFICIENCY IN TEXAS
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Billy D. Walker*

Introduction

The Texas system of public school finance has been the target of reform, study, and improvement for most of the twentieth century. Public awareness of the inadequacies and inequities of the system, political pressures, and judicial intervention have provided the impetuses for continuous scrutiny, analysis, and legislative action over the decades. Persistent concerns about adequacy, equity, and efficiency have been reflected in the conceptual models of state aid utilized, structural elements in the allocation models, and the system of revenues for public education. However, changes in the finance system often have been based largely on principles of trial and revision, compromise between conflicting forces, intermittent crisis resolution, and resistance to radical or sweeping modifications rather than concerted pursuit of rationally articulated school finance goals.

The purpose of this paper is to introduce a comprehensive proposal for improvement of the Texas school finance system based on an analytical paradigm encompassing adequacy, equity, and efficiency considerations. As an introduction, the paper will review the development of the Texas conceptual model, analyze the structural elements of the allocation model as developed over time, and examine the development of the revenue-raising system in Texas. This information will be synthesized with generally accepted school finance principles to produce the analytical model upon which improvements in Texas school finance might be based.

Development of the Texas Conceptual Model

The Constitution of 1876, which remains the Texas article of government, originally contained no provisions for state taxation (other than a $1.00 poll tax) for support of public education, for school districts, or for local school taxation outside incorporated cities.* The extent of state aid was to be an annual per capita distribution from an available school fund (ASF) that derived its revenues from the poll tax, a maximum of one-fourth of the state’s general

*Billy D. Walker is Deputy Superintendent for Business Affairs, Ector County I.S.D., Odessa, Texas, and school finance research advisor to the Texas Center for Educational Research.
revenue, and the earnings from a permanent school fund (PSF), endowed with 42 million acres of public land and the existing corpus of the fund. Local support outside incorporated cities came from "subscription" fees. Local support within incorporated towns came either from "rate bills" or local property taxation (if approved by a two-thirds vote). The vast majority of students lived in rural areas where the state per capita apportionment constituted the sole source of education revenues.

The "myth" of the PSF was soon called into question, and the level of state support was recognized as insufficient to meet the needs of expanding enrollments in the post-Reconstruction era. After attempts at accelerated land sales were acknowledged as failures, attention turned from near full state funding of the public education system to local taxation as a source of revenue. The state's first attempt to create local taxation authority outside incorporated cities was an 1881 statute authorizing unincorporated areas over 200 in population to incorporate for school purposes. This law was declared unconstitutional by the Texas Supreme Court in 1882.

Creation of the State/Local Partnership

A constitutional amendment passed in 1883 authorized the Texas Legislature to create school districts "within any or all counties," provided for local taxation in organized districts to a maximum of 20 cents per $100 (if approved by a two-thirds vote), authorized a state property tax for education to a maximum of 20 cents per $100, and added one-fourth of the revenue from the state occupation tax to the ASF. The provision for up to one-fourth of general revenue to go into the ASF was repealed until 1918, when an unlimited general revenue allocation was authorized. Despite the significance of the new constitutional provisions, the dual effort to improve the adequacy of funding was thwarted because: (1) state ASF distributions still could not keep pace with increasing enrollments, (2) the local taxation provision was little used because of the two-thirds vote needed to implement the tax, and (3) the legislature exempted large numbers of counties from dividing into school districts. However, each biennium the legislature reduced the number of counties exempted from districting until 1908, when the last vestiges of the "community system" were eliminated.

In 1908, another constitutional amendment was passed that: (1) substituted a majority vote for the two-thirds vote necessary to authorize local taxation in school districts, (2) raised the taxing limit for school districts to 50 cents per $100, and (3) allowed all school districts, not just city
The positive effects of this amendment soon were apparent since local taxation became a practical reality. A true state/local partnership in education funding began to take shape, and in 1920 another constitutional amendment removed the local tax limit, leaving the maximum rate to legislative discretion. The current statutory limit on the maintenance and operations tax is $1.50 per $100, while the ceiling on the debt service tax is $1.00 per $100 (limited tax bonds) or the rate necessary to repay voted bonds issued up to a debt limit of 10 percent of appraised value of property (unlimited tax bonds).4

The creation of a state/local partnership in public education finance, a model designed to promote adequacy and availability of resources in all districts, accentuated the wealth disparities among school districts of varying local taxable values. Such variance arose from local and regional economic factors, as well as from assessment practices of county assessors (for common school districts) and local school assessors (for independent districts). The per capita flat grant, as first envisioned, lacked adequacy but was not as disequalizing as modern observers might think. The state had a high degree of homogeneity of population, which was predominantly rural, poor, and unschooled. Since there were no state provisions for secondary education until 1911, only elementary education was being funded to any extent. The state property tax probably did provide some redistribution of wealth throughout the state in the ASF allotment, but tax equity likely was poor because of the differing assessment practices among counties and school districts.

Modifications to the Flat Grant Model

From 1876 to 1915, with a few minor exceptions, the per capita flat grant from the ASF constituted the sole form of state aid to school communities and districts. In 1915, the legislature appropriated $1 million for the biennium for "rural school equalization aid." In order to qualify for the aid, a rural common district had to tax at its legal limit of 50 cents per $100; in effect, the funds were a reward for local tax effort, but some expenditure equality no doubt resulted. It is now apparent that the state constitution did not authorize such an appropriation or distribution scheme; however, this circumstance was remedied in 1918.

In 1918, a constitutional amendment passed that provided for free textbooks and a state property tax (up to 15 cents per $100 over the 20 cents per $100 previously authorized) to pay for them through the ASF. The wording of this amendment made it legal for the legislature to appropriate funds directly
from the state treasury for special purposes or to supplement the per capita apportionment. The legislature soon put this authority to work to assist school districts strapped by the post-World War I depression. In 1919, an appropriation of $4 million was added to the ASF for distribution. While this action was intended as a stop-gap measure, the legislature continued to make such provisions in each succeeding biennium. While the flat grant model still comprised the great majority of state aid dollars, the concept of reward-for-effort equalization aid was firmly rooted.

In 1923, the Texas Legislature established and financed the Texas Educational Survey Commission, which published its findings in eight volumes in 1925. George A. Works, a Cornell University professor, served as survey director and report editor. B. F. Pittenger, a professor at the University of Texas, authored the report volume on school finance. The commission recommendations included a state-level equalization board for the property tax and state abandonment of the property tax as a revenue source. The report also suggested that state funds cease to be distributed on a flat grant basis but "be apportioned with reference to the ability and willingness of communities to contribute to their schools." Drawing upon the pioneer thinking and research of Harlan Updegraff, the commission recommended a district power equalization approach to aid distribution, as well as a constitutional elimination of flat grants to school districts.

While the Survey Commission recommendations were generally ignored by the state legislature, the commission work anticipated and framed the issues of enduring importance in Texas public school finance. The expansion of taxing potential in local school districts after 1920 produced even greater disparities in local expenditures than had been existent. At the same time, the lack of significant state funding forced districts to rely heavily upon local resources. While the Texas system of school finance appeared ripe for reform similar to that occurring in other states in the 1920s and 1930s, conservative influences resisted such reform until after World War II.

Two significant developments bearing on the state aid conceptual model did occur in the 1930s. First, a court challenge to such paltry equalization efforts as were existent resulted in a Texas Supreme Court decision that state aid to "financially weak" schools was a "suitable provision" within the constitutional authority of the legislature. Second, rural equalization aid was greatly expanded in 1937, and the distribution of funds was based on a teacher unit formula and a state minimum salary schedule. This elemental distribution
model appears to be the first attempt to determine adequacy of state aid.

Adoption of the Foundation Program Model

The post-World War II era was marked by extreme pressure for change in Texas public school finance policy. When the Texas Legislature met in 1947, a proposal for teacher salary increases within the rural equalization aid program triggered a legislative battle for the reform of the entire state public education system including education finance. The Gilmer-Aikin Committee was formed and charged to formulate a new plan for financing the schools and reforming public education.

In its report, the committee publicized the plight of Texas schools and the needs for equality, preservation of local control, a higher minimum salary schedule for teachers and other professionals, a fairer distribution of tax burdens, and a reorganization of state governance of education. Guided by the advice of L. D. Haskew, dean of education at the University of Texas, and Edgar Morphet, a noted school finance expert, the committee proposed a foundation program plan based on the conceptual theories of Strayer, Haig, and Mort.

The Minimum Foundation Program (MFP) proposed by the committee had a simple premise: each student should be given an equal minimum educational opportunity financed by equalized local tax effort and supplemented by state aid sufficient to compensate for the variations in local ability to pay. The vehicle was a set of formulas for allocating state funds for personnel (based on a state minimum salary schedule) and operations. Through use of a complicated county economic index, each district was assigned its proportionate share of the 20 percent of the MFP to be financed by local districts in the form of a chargeback called the Local Fund Assignment (LFA). The state, at least in theory, assumed 80 percent of the cost of the MFP. Local districts were free to enrich their programs beyond the state-guaranteed program level. The Gilmer-Aikin proposals were enacted into law in 1949 and still provide the basic conceptual model utilized in Texas.

Elaborations on the Basic Model

While the positive effects of the MFP were evident, several weaknesses likewise became apparent, not the least of which was the failure of state appropriations in support of an adequate minimum education. By 1965, the need for extensive revision of Texas school finance was obvious, and Governor John Connally created a Governor's Committee on Public School Education and charged it to develop a long-range plan that would place the state in a national leadership role in education.
finance. The Committee conducted extensive research into nearly every facet of public education and published its report in 1968.\textsuperscript{12} The report was ambitious, recommending such actions as massive consolidation of school districts into efficient units, an expanded foundation program to encourage equalization through massive state aid, abandonment of the economic index as a measure of local fiscal capacity, and replacement of the index with measures of equalized property value. Most of the proposals were ignored, the most notable exception being substantial salary increases on the state minimum schedule.

In 1971, many Texans were stunned when a U. S. District Court declared the state’s school finance system unconstitutional in \textit{Rodriguez v. San Antonio Independent School District}.\textsuperscript{13} Although the decision was reversed by the U. S. Supreme Court in 1973, public consciousness about the inequities of the system had been raised to the point that significant reforms were passed in 1975: (1) extensive state funding increases to the allocation formulas, (2) implementation of weighted personnel units in the staffing formulas, (3) movement to equalized property value as a measure of local ability to pay, (4) a substantial increase in the local share of the MFP (renamed the Foundation School Program), and (5) implementation of a second-tier program titled State Equalization Aid.

In the ensuing biennia, the legislature continued to increase funding to public education, but the outcome was regressive in terms of equity because of progressive decreases to the LFA rate, save-harmless features, and the burgeoning ASF per capita apportionment. By 1979, taxpayer equity emerged as the primary issue, and substantial tax reform occurred through: (1) creation of a State Property Tax Board, (2) implementation of county appraisal units to consolidate the appraisal function for all taxing units, (3) uniform appraisal based on 100 percent of true market value, (4) truth-in-taxation standards, and (5) potential tax rollback elections.

In 1983, the Texas Legislature was confronted by funding constraints resulting from static state revenues. Rather than raise state tax rates for the first time in over a dozen years, lawmakers chose to curb spending, there being no desire to increase state taxing levels for education without reciprocity in terms of reform of the public education system. A Select Committee on Public Education, chaired by H. Ross Perot, was appointed by Governor Mark White to investigate potential reform of the financing system. The committee broadened its scope, conducted numerous hearings, and made its report early in 1984. Among the far-ranging recommendations were those for a more equalized school finance structure and increased teacher salaries.
In a special session in the summer of 1984, the legislature framed significant reforms through House Bill 72. A full discussion of the content of the reform law is not feasible in a paper of abbreviated length, and some details of the structural elements are presented below. The major emphases were: (1) retention of the foundation program model, (2) movement from the adjusted instructional unit as a distribution unit to weighted pupils, (3) an increased first tier of the foundation program, (4) an increased local share of the FSP, and (5) substantially improved second-tier equalization aid. After the significant infusion of state funds, as well as state mandates, a rapidly declining revenue base compelled the legislature to increase state tax rates merely to maintain education spending levels. As a result, reform costs were shifted to the local level, where property taxes continued to rise with program costs.

The most recent stimulus for re-examination of the state aid model has been Edgewood v. Kirby, a state court equity suit. The trial court held the state system of school finance unconstitutional and ruled that all school districts must have the same ability to generate revenues at identical tax efforts. Although the case was overturned at the court of appeals level, and is now on appeal to the Texas Supreme Court, the strict fiscal neutrality dictum of the district court has caused school finance experts in Texas to explore an improved and more fiscally neutral conceptual model of state aid. That inquiry is, in part, the subject of this paper.

Development of Structural Elements of the Aid Model

As mentioned above, from 1876 to 1915 the state aid system for public schools in Texas was simple in the extreme. Each school community or school district received a per capita apportionment from the ASF according to the students served (in school communities) or appearing on the scholastic census (in school districts). Minor exceptions included funds to encourage rural high school development, beginning in 1911, and to foster the teaching of home economics and manual arts. In 1915, the legislature appropriated funds for rural equalization aid and strengthened aid to rural high schools. The "equalization aid" was allocated to small rural districts that taxed at the legal limit of 50 cents per $100 for maintenance and operations. This type of reward-for-effort system, which is given more discussion below, was continued until 1949.

In 1918, a constitutional amendment provided for free textbooks for all students, and in 1919, as mentioned, the Texas Legislature established an enduring policy of supplementing
designated education monies with general revenue distributed through the ASF apportionment. In 1925, transportation aid was born through a rudimentary flat grant mechanism. In 1937, the rural school aid act of 1915 was rewritten, refinanced, and renamed the Equalization Fund. The aid was targeted to districts that: (1) contained between 20 and 400 students, (2) exerted minimum local tax effort of 50 cents per $100 for maintenance and operation purposes, (3) achieved a specified percentage of pupil attendance, and (4) possessed assessed property valuation of less than $3,000 per student. Districts with higher valuations per student could receive aid if they taxed at a level of $1.00 per $100. Payments were made to districts according to a teacher unit formula and a state minimum salary schedule for teachers.

With the creation of the MFP in 1949, the structural elements of the state aid system began to grow more complex. First, aid computations were made on the basis of average daily attendance (ADA) instead of the annual scholastic census. Second, the basic distribution unit for all districts became the classroom teacher unit (CTU), and each district was entitled to additional support units (for counselors, supervisors, etc.) based on the number of CTUs allotted. Vocational teacher units, along with the superintendent unit, were treated as "bonus" units above the formula CTU's earned. A state minimum salary schedule for all positions, from teacher through superintendent, was utilized to determine state aid entitlements. Third, a "maintenance and operations" allotment was granted for each CTU entitlement. Fourth, transportation aid was greatly increased within the crude allocation formula, which was substantially improved in 1951. Fifth, limited special education CTU's were implemented on a categorical basis. Finally, calculation of local share of the MFP was based on a complicated county economic index that allocated the statewide LFA (20 percent of MFP costs) to the county level. At the local level, each district's share of the county LFA was based on proportionate share of county taxable value, as determined by county assessors.

Between 1949 and 1975, only minor modifications were made to the allocation formula elements of the MFP although pay increases to the minimum salary schedule were authorized seven times in the twelve intervening biennia. In 1959, a categorical program for preschool non-English speaking children was implemented, followed in 1973 by a state-mandated program of bilingual education and limited state supplemental funding. Kindergarten programs for disadvantaged five-year-olds were implemented in 1970, followed by expansion to all students in 1973, with funding based on the CTU formula. In 1970, the CTU formula was improved from 1:26 to 1:25, and teacher aides were
added as service personnel, along with a minimum salary schedule for aides. Special education programs were expanded substantially after 1969 with eligible students including three-year-olds, learning disabled pupils, and pregnant students. Special education transportation costs were added in 1967. In 1970, a special operating cost allotment was implemented for vocational education based on teacher units. State funding for the Child Nutrition Program was authorized in 1974 when breakfast programs became a state requirement on certain campuses.

In 1975, substantial changes were made to the structural elements of the MFP, which was renamed the Foundation School Program (FSP). First, the simple CTU formula was altered to adjusted personnel units (PUs), with the initial formulas being 1:19 in Grades K-3, 1:21 in Grades 4-6, 1:20 in Grades 7-9, and 1:18 in Grades 10-12. Second, the operating cost allotment was changed from a CTU basis to an ADA basis and was greatly increased. Third, a second-tier program of equalization aid was authorized, on a percentage equalized basis, for all districts below 125 percent of average taxable value per ADA. Fourth, calculation of LFA was moved from the county economic index to taxable value of property in each district. Equalized valuations were mere educated estimates in 1975 but were improved by the creation of a School Tax Assessment Practices Board (STAPB) in 1977 and the State Property Tax Board (SPTB) in 1979. The original LFA rates were 30 cents per $100 in 1975-76 and 35 cents per $100 in 1976-77.

In 1977, the legislature increased FSP aid through the state minimum salary schedule, adopted lower LFA rates in two different constructs, provided for two different configurations of equalization aid, placed vocational and special education within the PU formulas rather than retaining them as "bonus" units, and provided for additional PU adjustments to districts under 1,000 in ADA. In 1979, lawmakers: (1) expanded FSP aid through the state salary plan; (2) adjusted the LFA rate downward and back into a single formula, with "save harmless" provisions added; (3) revamped transportation aid formulas through adoption of linear density groupings; (4) established PU floors for sparse-area, very low-enrollment districts; (5) added a fast-growth adjustment to the PU formulas; (6) provided for minimum aid to districts losing state aid per ADA; (7) adjusted state equalization aid back to a single formula; (8) provided for partial reimbursement to districts for local tax losses arising from state-mandated exemptions; and (9) implemented categorical state assistance for gifted/talented education.

In 1981, state support was again increased through the compensation plan, the LFA rate was again lowered, and increases
were granted for the maintenance and operations allotment, state equalization aid, and bilingual education. Reimbursement for local tax losses was ceased, and the fast-growth adjustment was vetoed. In 1983, little change occurred except the lowering of the LFA rate again. For 1983-84 the rate was 11 cents per $100, substantially down from the 35 cents per $100 level utilized in 1976-77.

A special session of the Texas Legislature in 1984 produced significant changes in the FSP formula elements, including: (1) greatly increased equalization aid, from about $275 per ADA to $675 per ADA (percentage equalized); (2) a change in the unit of distribution from adjusted personnel units to weighted pupils; (3) establishment of a basic allotment per regular ADA; (4) implementation of a price differential index (PDI) to adjust basic allotments for regional cost variations; (5) more liberal adjustments in basic allotment for districts under 1,600 in ADA; (6) expanded pupil weighting by instructional arrangement for special education; (7) expansion of compensatory aid; (8) expansion of bilingual education aid; (9) weighting of vocational education students by full-time equivalents; (10) a vastly revised state minimum salary schedule for teachers; (11) a career ladder program of salary supplements for classroom teachers; (12) increased transportation allocations within the same linear density groupings; (13) establishment of a "sum certain" ceiling on FSP costs; (14) a new method of computing LFA based on a statewide local share of 0 percent of FSP costs (33.3 percent in 1985-86 and after); (15) implementation of an experienced teacher allotment; (16) equalization transition aid for districts losing state aid per ADA from the prior year; (17) removal from the ASF all revenues except those dedicated by the state constitution; (18) tax rollback election override capabilities for districts losing state aid per ADA; (19) implementation of prekindergarten programs for disadvantaged four-year-olds; (20) initiation of summer bilingual education programs for limited English-speaking preschoolers; (21) class size maximums of 22 in grades K-2 (with Grades 3-4 added in 1988-89); (22) deletion of funding for driver education, school-community guidance centers, and student teacher supervisors; and (23) movement of some Teacher Retirement System Contributions from the state to local school districts.

Since 1984, the only change of notes has been the addition of weighted pupil funding for gifted/talented education in 1985. Each of the current structural elements is given detailed discussion below.16
Development of the Revenue System

The preceding discussion of the development of the conceptual model of public school finance in Texas, as well as structural elements of the allocation system, has touched briefly on the revenue-raising provisions supporting public education. In the early years of state support under the current Constitution, the practice was to dedicate specific monies to the schools. In later years, reliance on dedicated revenue sources has declined and has been superseded by general legislative appropriations. At the local level, the ad valorem property tax has been the sole source of local tax revenue for public schools. Federal assistance, which has been a recent phenomenon by comparison, plays a significant role in the funding of specified programs.

Dedicated State Revenues

The Constitution of 1876 originally made no provision for state taxation specifically for public education except for the $1.00 poll tax imposed on all males ages 21 to 60. This tax, plus the earnings from the PSF, formed the mandatory ASF. A maximum of one-fourth of the state’s general revenue could be allocated to the ASF, but there was no constitutional dictum for minimum revenue provisions. By the 1880-81 school year, the ASF apportionment was only $3.00 per scholastic (ages 8 to 16). PSF earnings were depressed because the corpus of the fund was comprised more of land and notes on land than of cash. The state budget suffered from an economic collapse and debts incurred by the Reconstruction government; therefore, it was not always possible to dedicate one-fourth of the general revenue to public education. In order to free public school funding from the vagaries of the legislative budgeting process, as well as to enhance revenues, supporters of public education pressed for a constitutional amendment. They succeeded in 1883.

The constitutional amendment of 1883: (1) deleted the general revenue provision, (2) dedicated a state property tax to a maximum of 20 cents per $100 to the ASF, (3) dedicated one-fourth of the state occupation tax to the ASF, and (4) authorized local property taxation within limits. It might here be noted that the maximum state property tax for general fund purposes was lowered from 50 cents per $100 to 35 cents per $100 in exchange for the state property tax devoted exclusively to public education. Since the general state property tax was the main source of state general revenues, some of which were appropriated to education, the trade-off secured only a slight net gain in monies for public schools. However, dedication of the funds, along with removal of education funding from the appropriations process, was gained.
From 1883 to 1891, the sole and dedicated state funds for public education were those listed above, and all revenues were distributed annually through the ASF. The meager yield of these dedicated sources, especially when coupled with the prevailing absence of local taxation, produced a dismal revenue picture for schools. In 1891, a constitutional amendment was passed authorizing the legislature to add to the ASF each year not more than 1 percent of the corpus of the PSF. This the legislature did in five intervening years before the practice was ceased in 1899. From 1899 to 1918, there was no change in dedicated state revenues.

In 1919, a constitutional amendment provided for free textbooks and a state property tax, dedicated to the ASF, to pay for the books. The added 15 cents per $100, when taken with the existing 20 cents per $100 state property tax, provided for a total dedicated ad valorem tax of 35 cents per $100. The wording of this amendment made it constitutionally permissible for the legislature to draw upon general funds to supplement education appropriations. Therefore, the ASF apportionment was "enriched" by special appropriations from 1919 forward. In many cases, the lawmakers dedicated by statute certain state revenues, or percentages of certain taxes, to the ASF. Chief among the statutory dedicated taxes were portions of the oil production tax, natural and casinghead gas taxes, and the motor vehicle sales tax.

The status of the ASF was altered in 1946, when one-fourth of the state revenues from the motor fuels tax was dedicated by constitutional amendment. In 1948, the state general property tax of 35 cents per $100 was repealed by constitutional amendment, removing ad valorem revenues from the state’s general tax base and presaging the demise of the state property tax for public schools. In 1949, at the time of enactment of the Gilmer-Aikin laws, the constitutionally-dedicated ASF revenues were: (1) the state property tax of 35 cents per $100 for textbooks and other educational purposes, (2) one-fourth of the state occupation tax, (3) one-fourth of the state motor fuels tax, (4) earnings from the PSF, and (5) the $1.00 poll tax.

In 1968, the state property tax of 35 cents per $100 for public schools was repealed by constitutional amendment; the higher education portion of the tax was continued until 1982, when the last vestiges were eliminated. By 1982-83, the ASF apportionment, which was still as small as $119 per ADA in 1970-71, had ballooned to $525 per ADA. This circumstance prompted the state legislature in 1984, as part of its reform agenda, to remove all dedicated revenues from the ASF except those mandated by the state constitution. As shall be seen below, this action removed state revenue from the more affluent
school districts in the state. In 1984-85, the per capita apportionment was only $225 per ADA.

Today, the only designated state revenues are those mandated to the ASF for per capita distribution by the state constitution: (1) earnings from the PSF, including the coastal tidelands; and (2) one-fourth of the state motor fuels tax. While one-fourth of the state occupation tax and a state poll tax of $1.00 are still dedicated to the ASF, they are no longer collected by the state. These dedicated monies comprise only about 15 percent of state appropriations for public education.

General State Revenues

Discussion has already been given to the original constitutional provision that up to one-fourth of general revenues of the state could be appropriated to the ASF. General revenues derived primarily from a state property tax (50 cents per $100) and from state occupation taxes at that time. After the constitutional amendment of 1883, no general revenues were dedicated to public education since all education revenues were dedicated funds. As we have seen, these dedicated revenues proved insufficient to meet public education needs.

In 1915, the Texas Legislature appropriated $1 million from general revenues to establish the rural equalization aid program as a supplement to constitutionally-dedicated monies. This aid provided reward for effort to rural schools taxing at the maximum legal rate (50 cents per $100 at the time). In 1919, the legislature, capitalizing on its general revenue capabilities arising from the free textbook amendment of 1918, added $4 million to the ASF to assist school districts. This gesture established a continuing practice of supplementing the ASF per capita apportionment through either special appropriation or dedication of certain taxes by statute to the ASF. As mentioned above, the chief statutory dedication from the general revenue were oil production taxes, natural and casinghead gas taxes, and the motor vehicle sales tax.

In 1937, the rural equalization aid program was greatly expanded, with emphasis again placed on tax effort in low-wealth, small districts. State revenue increases during the 1930s, especially from oil and gas revenues and the motor fuels tax, made this extension possible. The trend toward increased state aid from general revenues, with less reliance upon dedicated tax sources, was advanced significantly during the 1930s.

In 1949, with the establishment of the foundation program model, state assistance from general revenues was once
again increased appreciably. The Foundation School Fund (FSF) was financed entirely from general revenues and enjoyed a priority draw on the state treasury. The ASF also was financed partially from general revenues dedicated by statute. Since the MFP formula provided that ASF revenues of a district be treated as a chargeback to FSF receipts, the ASF flat grant monies were included under the equalized program. "Budget balanced" districts, meaning those districts in which the local share of the MFP exceeded FSF entitlements, still received the full ASF apportionment even though only part of the ASF revenues were constitutionally mandated for annual per capita distribution. This practice was disingenuous, especially as ASF revenues grew substantially in the late 1970s and early 1980s. As mentioned above, the legislature removed all general revenues dedicated by statute to the ASF in 1984, meaning that all state general revenues currently utilized to fund public schools are subject to the biennial appropriations process.

In 1961, the state implemented a limited sales and use tax, originally set at 2 percent and now at 6 percent. This general sales tax greatly increased state general revenues, including monies available to support public education. Today, about 36 percent of all school district operating revenues derive from the sales tax, making it difficult to envision a school finance world without this important tax. Since Texas utilizes neither individual nor corporate income taxes, the limited sales and use tax is the major state revenue source.

State taxes for general revenue purposes are many and varied, but eight major taxes account for over 90 percent of state tax receipts. Since school district operating revenues from the state are derived predominantly (85 percent) from general revenue sources, the status of these major taxes is of prime importance to public education. One of the eight major taxes is the motor fuels tax, which is constitutionally dedicated to the ASF (one-fourth) or highway improvements. The other seven major taxes, and their approximate percentage of state tax resources, are: (1) limited sales and use tax (42.3 percent), (2) corporate franchise tax (8.8 percent), (3) motor vehicle sales and rental tax (8.5 percent), (4) natural and casinghead gas tax (7.6 percent), (5) oil production tax (7.5 percent), (6) insurance company tax (4.0 percent), and (7) cigarette and tobacco tax (3.7 percent).

Local Tax Revenues

The development of the local property tax has been discussed at length above. In Texas, the ad valorem property tax is the sole source of tax revenue for school districts. At this juncture, information on the operation of the tax may be of assistance to the discussions in succeeding sections.
Local boards of trustees have statutory authority to levy a local property tax for maintenance and operations up to $1.50 per $100 (15 mills). All taxable property in the district must be placed on the local tax roll at market value except for: (1) certain farm and ranch properties, which are based on productivity (agricultural use) valuation, and (2) qualifying residential homesteads, which qualify for limited exemptions from school taxes. State law mandates a 100 percent ratio of assessment on the full market or other value. The appraisal function for school districts and all other taxing entities is performed by county-wide central appraisal districts.

Three residential property tax relief devices are utilized in Texas to adjust the incidence of the tax on homesteads: (1) homestead exemptions, (2) tax deferrals, and (3) tax freezes. The state does not utilize tax relief measures such as circuit breakers, classification, or homestead credits.

The Tax Relief Amendment of 1978 greatly expanded the homestead exemption system initially authorized in 1932. Each residential homestead is now entitled to a $5,000 exemption for school tax purposes as applied to the assessed (tax roll) value of the homestead. Additional school tax exemptions of $10,000 are available to citizens over 65 and disabled homeowners. In 1981, another constitutional amendment authorized still other homestead exemptions on a local option basis, with decision-making power residing with local school boards. The maximum amount of the local option homestead exemption currently is 20 percent of assessed value (minimum of $5,000) in addition to the mandated exemptions.

Texas law currently provides for tax deferrals for the elderly (65 or over), but the option is not exercised on a wide basis. This tax deferral plan allows the elderly homeowner to defer school taxes until the property is sold or probated.

A freeze on residential property taxes is in effect in Texas for elderly (65 or older) homeowners. The Tax Relief Amendment of 1978 froze school tax levies for eligible persons at the 1979 dollar level, or at the level paid in the year before the homestead owner turned 65. The school district has the option of not freezing that portion of the tax levied for repayment of bonded indebtedness, but as a practical matter of administration it is less confusing to freeze the entire amount.

The principal property tax limitation device affecting school districts is the tax rollback election, which is an attempt at tax levy limitation rather than assessment or
expenditure limitation. In simplistic terms, a local levy increase for maintenance and operations in excess of 8 percent triggers the potential for the petition and rollback election processes.

In calculating school district fiscal capacity for state aid purposes, the state utilizes local taxable value as determined through annual on-site reviews by the State Property Tax Board, not local roll values. The taxable value used is full market value less the value of property that is constitutionally or statutorily exempt. Local option homestead exemptions are included as taxable value for state aid purposes.

Local Enrichment. Local enrichment refers to local taxes that are intended to meet operating costs above the local share and the level funded by the state. Currently, these revenues represent over $750 per ADA, an estimated 45 percent of total local tax revenues. A district’s ability to enrich the educational program is dependent primarily on district property wealth. It also depends to a certain extent on willingness to tax and on local facilities and equipment needs. A district with greater than average needs for buildings and capital expenditures will use local revenues for this purpose, reducing the amount available for program enrichment. The central equity issue in public school finance is the effect of local taxable wealth disparities and the unequal ability of districts to raise enrichment revenues.

Bonded Indebtedness. Funds to retire bonded indebtedness come from a separate tax levy. School districts use bonds to finance major construction projects or equipment purchases. The Texas Education Code prescribes two approaches for limiting bonded indebtedness: (1) bonds may be issued up to ten percent of the assessed value of property in the district, and (2) bonded indebtedness is limited to the amount of funds that would result from a debt service tax rate of $1.00.

Federal Revenue.

Federal revenue amounts to about six percent of total local education revenue. Districts must use these funds for specific purposes provided in federal law or regulations. Funds for ECIA, Chapter 1; handicapped students, and school lunch and breakfast reimbursement are examples of federal categorical funds.

Federal revenue varies among districts, depending on local policies, targeted students within the district, the amount of federal tax-exempt property in the district, and other factors. Federal aid cuts have a significant effect on local programs for disadvantaged and handicapped children. High costs make such programs difficult to fund from local revenues.
The cost of the Foundation School Program (FSP) in Texas is shared by the state and the local district. First, the amount of FSP aid to which a district is entitled is computed according to the state formulas. Second, from this figure is subtracted the district’s local fund assignment (LFA), or local share of the FSP, which is the district’s proportionate share of the statewide local share of the FSP. This statewide local share currently is 33.3 percent of statewide FSP costs. The result is the amount of regular program aid the district is due to receive from the state. To this aid will be added an experienced teacher entitlement (percentage equalized based on the state/local ratio in the regular program), a prekindergarten entitlement (percentage equalized), and enrichment equalization aid (based on a separate formula). A sample calculation based on the 1988-89 statutory formulas is illustrated below in Table 1. Local expenditures from property taxes above the required local share are generally termed "local enrichment" and are subject only to the statutory tax rate limit.

**TABLE 1**

**Calculation of FSP Aid for a Sample District**

<table>
<thead>
<tr>
<th>1988-89 ADA/FTE Information, Estimated</th>
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<tbody>
<tr>
<td>Total ADA (Best 4 of 8 Weeks)</td>
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<tr>
<td>Less Special Education FTEs</td>
</tr>
<tr>
<td>Less Vocational Education FTEs</td>
</tr>
<tr>
<td>Regular Program ADA</td>
</tr>
</tbody>
</table>

1. Calculation of Basic Entitlement

A. Basic Allotment = $1,350

B. Adjusted Basic Allotment (ABA) =

\[
[(BA \times .76) \times PDI] + (BA \times .24) =
[(1,350 \times .76) \times 1.2085] + (1,350 \times .24) =
(1,026 \times 1.2085) + 324 =
1,240 + 324 = 1,564
\]

C. Small District Adjustment = Not Applicable

A small district of less than 300 square miles and less than 1,600 ADA has its ABA adjusted by .00025 x
(1,600 - ADA) x ABA; a district of more than 300 square miles and less than 1,600 ADA has its ABA adjusted by .0004 x (1,600 - ADA) x ABA. The adjusted ABA is used in all computations below where ABA appears in the formulas. A minimum of 130 ADA is accorded to K-12 districts with less than 130 ADA.

D. Basic Entitlement =

Reg. Program ADA x ABA =
2,226.343 x 1,564 = $3,487,000

2. Calculation of Special Entitlements

A. Education Improvement and Career Ladder Allotment =

Total ADA x $140 =
2,367.965 x 140 = 331,515

B. Special Education Allotment =

<table>
<thead>
<tr>
<th>Instr. Arrangement</th>
<th>FTEs</th>
<th>Weight</th>
<th>Weighted FTEs</th>
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<tr>
<td>Homebound</td>
<td>0.031</td>
<td>5.0</td>
<td>.155</td>
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<td>Hospital Class</td>
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<td>Speech Therapy</td>
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<td>SC/Separate Campus</td>
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<td>0.000</td>
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<td>Multidistrict Class</td>
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<td>0.000</td>
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<td>TOTAL</td>
<td>81.193</td>
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<td>280.778</td>
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</table>

Tot. Wtd. FTEs x ABA =
280.778 x 1,564 = 439,137

C. Vocational Education Allotment =

Voc. Ed. FTEs x ABA x 1.45 =
60.429 x 1,564 x 1.45 = 137,041

D. Gifted and Talented Allotment =

G&T Students x ABA x .043 =
94 x 1,564 x .043 = 6,322
E. Compensatory Education Allotment =
   \[ \text{MSLP Students} \times \text{ABA} \times .2 = \]
   \[ 826.8 \times 1,564 \times .2 = 258,622 \]

F. Bilingual/ESL Allotment =
   \[ \text{Bil./ESL ADA} \times \text{ABA} \times .1 = \]
   \[ 173.638 \times 1,564 \times .1 = 27,157 \]

G. Transportation Allotment =
   Regular 143,393
   Special Education 40,306
   Voc. Education 3,478
   TOTAL 187,178

3. Total Cost of FSP
   \[ 4,868,973 \]

4. Calculation of Local Share of FSP
   \[ \text{LFA} = (\text{DPV/SPV}) \times (N \times \text{FSP}) \]
   \[ = (465,070,485/668,707,344,458) \times \]
   \[ (.333 \times 6,309,253,794) \]
   \[ = .0006954 \times 2,103,084 \]
   OR
   \[ \text{LFA} = \text{DPV} \times .003145 \]
   \[ = 465,070,485 \times .003145 \]
   \[ = 1,462,647 \]

5. State Share (3. - 4.)
   \[ 3,406,326 \]

6. Calculation of Per Capita Entitlement
   \[ 1987-88 \text{ ADA} \times \$273 = \]
   \[ 2,337,700 \times 273 = 638,192 \]

7. Amount from Foundation School Fund (5. - 6.)
   \[ 2,768,134 \]

8. Experienced Teacher Entitlement
   \[ \text{EXP} = \frac{[(\text{DAS}/\text{SAS}) - 1]}{\frac{[1 - (\text{LFA}/\text{DFSP})]}{.75 \times (\text{DFSP} - \text{TA})]} \]
   \[ = (1.0241 - 1) \times (1 - .300) \times \]
   \[ (.75 \times 4,681,795) \]
9. Enrichment Equalization Entitlement

\[
EEA = \frac{(1 - \text{DPV/ADA}) \times \text{ADA} \times \text{MAXENT} \times \text{DTRT}}{(\text{SPV/ADA} \times 1.10)}
\]
\[
= \left(1 - \frac{196.401}{243.568}\right) \times 2,367.965 \times 617 \times 1.0
\]
\[
= .1937 \times 2,367.965 \times 617
\]
\[
= 283,002
\]

Where:

- **EEA** = Enrichment equalization allotment
- **DPV/ADA** = District SPTB value per ADA
- **SPV/ADA** = State SPTB value per ADA
- **ADA** = Best four weeks ADA
- **MAXENT** = Maximum entitlement per ADA
- **DTRT/BTRT** = Greater of either: (a) ratio of the district’s effective M&O rate to the M&O rate necessary for a district at 110 percent of SPV/ADA to raise its local share plus MAXENT (.005513); or (b) ratio of the district’s total tax rate to the total rate necessary for a district at 110 percent of SPV/ADA to raise its local share plus MAXENT plus the statewide effective tax rate for debt service (.006684). If DTRT/BTRT exceeds 1.0, then 1.0 is used.

10. Other Entitlements

A. Prekindergarten Allotment =

\[
\text{PrK ADA} \times \text{ABA} \times (1 - \text{LFA/DFSP}) \times .75
\]
\[
= 58.25 \times 1,564 \times (1 - .300) \times .75
\]
\[
= 58.25 \times 1,564 \times .700 \times .75
\]
\[
= 47,891
\]

11. Total Foundation Entitlements

\[7. + 8. + 9. + 10.A = 3,158,263\]

12. Total State Aid

\[6. + 11. = 3,796,455\]
The sample district's state aid for 1988-89 is estimated at $3,796,455. This figure can only be estimated at the outset because: (1) estimated ADA for the best four weeks is used for regular ADA, special education FTEs, vocational education FTEs, bilingual/English as a second language ADA, and gifted and talented students; and (2) the district's local share is dependent upon the total cost of the FSP (33.3 percent of which is shared by local districts), and the total cost cannot be ascertained until all attendance and other data are finalized at the end of the school year.

**Summary.** Since the formulas in use are estimates of the future and are highly sensitive to changes, local districts must be prepared for revenue shortfalls. Prior to 1984, the Foundation School Program had a priority draw on the state treasury and the entitlements were sure to be funded. This is no longer true. If the total entitlements exceed a ceiling set by the legislature, then aid to all districts is to be reduced or prorated.

**The Analytical Model**

The model for analysis of Texas public school finance set out in this section has a singular purpose; that is, to establish a framework for inquiry into rationally articulated school finance goals, both current and future, for the state. It was mentioned in the introduction to this paper that state concerns for the goals of adequacy, equity, and efficiency have been enduring, particularly in the past four decades, and that changes in the finance system in pursuit of these goals customarily have been based on trial and error, political compromise, expediency, and crisis resolution. The state has not developed a set of conditions necessary to satisfy the important goals of adequacy, equity, and efficiency, nor has it measured progress toward achievement of the goals.

Few Texas policymakers understand the ends served by existing structural elements of the school finance system. Therefore, when deletions from the elements of the system are proposed, there is little consideration for the theoretical consequences of structural alterations. Moreover, when additional elements are considered, only scant attention is given to the purposes served. Finally, there is no existing structure to analyze present formula elements in relation to important goals, a process necessary for logical improvement and planning.
The paradigm has three components: (1) the core characteristics of a school finance program, (2) a philosophical equity hierarchy, and (3) the theoretical nexus of school finance goals (adequacy, equity, efficiency) and structural elements of a school finance program. Each component is discussed below, and the concepts are related to proposed Texas school finance program elements in a series of matrices (Tables 2-4). Each structural element, either existing or prospective, is discussed in the ensuing section of the paper.

**Core Characteristics of a School Finance Program**

A state school finance model that addresses the major school finance goals of adequacy, equity, and efficiency requires the following core characteristics. A comparison of these characteristics and the proposed Texas program is summarized in Table 2 below.

**Base Level of Educational Programs.** The base level of funding establishes the adequacy of the state program by defining broad needs and relating funding to these needs. The base level also provides the foundation for horizontal equity and establishment of uniform educational opportunity throughout a state. The base level ought to be established according to some criterion of need, such as the cost of a minimally adequate program, rather than by available revenues. In the current and proposed Texas structure, the base level is best epitomized by the Basic Allotment per Average Daily Attendance (ADA).

**Fiscal Equalization.** The establishment of fiscal equalization necessitates the measurement of local fiscal capacity in order that state aid payments be adjusted according to fiscal need at the local district level. This characteristic is the most important in determining the equity of the state finance program, and a reliable measure of need is imperative. The most common measure of fiscal capacity is tax base per pupil; however, adjustments can be made for personal income, tax exportability, and overlapping tax rates (municipal overburden). The principal fiscal equalization objects are expenditure equality and fiscal neutrality (ex ante and/or ex post). The salient feature of the current and proposed Texas program is computation of the local share of the FSP. The power equalization aid feature is crucial to the fiscal neutrality of the program.

**Fiscal Effort Uniformity.** Required local tax effort is an essential characteristic of a state school finance model. The purpose of such tax effort uniformity is to ensure that a child's education, at the most basic level, is not a function of the low aspirations of a community, unwillingness of the
district to accept financial responsibility, or local political influences. Uniformity of effort also promotes the equity of the system by tending to standardize reward for effort. In the proposed Texas system, the local fund assignment rate (local share of the FSP) is based on required minimum local tax effort. The measure of effort is normally the equalized tax rate of the school district; however, the effort measure can be adjusted to reflect personal income and other factors.

Corrective Educational Programs. Financing to meet the needs of students who are handicapped by hereditary or developmental defects is an essential feature of a state program. Such financing promotes both adequacy (of the special education program) and vertical equity (the unequal treatment of unequals). In the current and proposed Texas scheme, districts receive additional funding for handicapped students based on both the handicapping condition and the instructional arrangement utilized.

Remedial Educational Programs. Funding to meet the needs of students who are educationally disadvantaged by social, economic, and language backgrounds is another essential characteristic of a state school finance program. Both adequacy and vertical equity are addressed by compensatory education funding. In the current and proposed Texas system, districts receive additional funding for compensatory and bilingual education.

Diseconomies of Scale. Diseconomies of scale in school districts created by geographic or demographic conditions should be recognized in state finance formulas. In practice, such adjustments occur on the basis of district or campus enrollments. In general, districts receiving adjustments should meet a formula of necessity; that is, low enrollment should arise from population sparsity or density. However, in both the current and proposed Texas finance system, low enrollment districts do not have to be sparse-area districts to receive additional aid.

Governmental Overburdens. School districts located in areas with excessive overlapping tax rates are viewed as disadvantaged in their abilities to levy local taxes for education because of "municipal overburden." Municipal overburden can be adjusted for by a tax base or tax effort adjustment (see fiscal equalization above) or by a direct aid factor. The current Texas system contains no such adjustment, but the proposed system accommodates a tax effort adjustment. The potential for a density formula, which provides additional aid to high-enrollment districts, is likewise present.
Cost of Delivering Comparable-Educational Services.
Formula elements that adjust for disparities in district purchasing power relative to educational services are considered essential in a state aid model. A district can be disadvantaged by either diseconomy of scale (see above) or by regional cost differences in equivalent services. A cost-of-education index (CEI) is the usual adjustment factor. In the current and proposed Texas system, a price differential index (PDI) is used to make such an adjustment.
TABLE 2

CORE CHARACTERISTICS OF A SCHOOL FINANCE PROGRAM

<table>
<thead>
<tr>
<th>STATE AID PROGRAM STRUCTURAL ELEMENTS</th>
<th>BASE LEVEL ED PROGRAMS</th>
<th>FISCAL EQUALIZATION</th>
<th>FISCAL EFFORT UNIFORMITY</th>
<th>CORRECTIVE EDUCATIONAL PROGRAMS</th>
<th>REMEDIAL EDUCATIONAL PROGRAMS</th>
<th>DISECONOMIES OF SCALE</th>
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TABLE 2 (Cont.)

CORE CHARACTERISTICS OF A SCHOOL FINANCE PROGRAM

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<th>STATE AID PROGRAM STRUCTURAL ELEMENTS</th>
<th>BASE LEVEL</th>
<th>FISCAL EQUALIZATION</th>
<th>FISCAL EFFORT UNIFORMITY</th>
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<td>Circuit Breakers*</td>
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<td>Regional Modifications (&amp; PD1)*</td>
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* = Not in Texas Program
Philosophical Equity Hierarchy

The pattern of structural elements in state school finance systems can be described in terms of a hierarchy of philosophical equity. The hierarchy not only serves as an analytical tool but also establishes goals for school finance policy. The elements are classified below in Table 3; the structure of the Texas school finance model (current and proposed) is compared to the equity hierarchy in Table 4.

TABLE 3

<table>
<thead>
<tr>
<th>Equity Hierarchy and Structural Elements</th>
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<tr>
<td>Positivism</td>
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<tr>
<td>Fiscal neutrality</td>
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<tr>
<td>Expenditure equality</td>
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<tr>
<td>Cost of delivering comparable services</td>
</tr>
<tr>
<td>Economies of scale</td>
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<tr>
<td>Remedial programs</td>
</tr>
<tr>
<td>Restitution</td>
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<tr>
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<tr>
<td>Cost of comparable services</td>
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<td>Economies of scale</td>
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<tr>
<td>Governmental overburden</td>
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<tr>
<td>Corrective programs</td>
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<td>Remedial programs</td>
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<td>Corrective programs</td>
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<tr>
<td>Remedial programs</td>
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Commulative Equity. The concept of commutative equity embraces a belief that while rewards may be distributed differentially in society, so long as the distribution is not the result of a conscious design to deprive certain groups of resources, such distribution is neither just nor unjust. Therefore, there is no need for government to compensate persons or groups who, by no one’s purposeful design, receive less resources than other persons or groups. Since resources are indifferent to concepts of equity, there is no need to redistribute resources, laissez-faire self-interest may be allowed to prevail, and local choice can predominate. If the government does not create discrimination in otherwise neutral resource allocations, it has no obligation to remedy unequal distribution (e.g., of dollars).
based on such an equity principle might include flat grants to school districts but more likely would be based on local resources, local choice, and so on. However, since unequal distribution of local dollar resources is most often the result of governmental action (i.e., in the creation of school districts), the government is compelled to act to compensate school districts and students with a shortage of resources.

**Distributive Equity.** Distributive equity incorporates beliefs such as equal distribution of resources, restitution, and positivism (see below). Once the government departs from the basis of commutative equity to distribute resources on a compensating basis, it may do so in varying manners that create differing degrees of philosophical equity.

**Equal Distribution.** The principle of equal distribution requires that the state create a condition of fiscal neutrality in which all districts have equal access to dollars per pupil. The state is not concerned with issues such as uniformity of services, sufficiency of educational programs, or even the measurement of adequacy. Therefore, substantial local choice may prevail. The state’s equity goal is full fiscal equalization without reference to desirable educational programs. A state school finance system based purely on this principle would be district power equalization with unlimited local leeway to tax and spend.

**Restitution.** Restitution, as a philosophical equity concept, requires that the state act to compensate school districts for local conditions that may cause educational opportunity to vary. As seen above in Table 3, the state’s method of financing becomes more complex. In addition to creation of fiscal neutrality, the state encourages equality of educational expenditures through fiscal effort uniformity, differentiating aid based on cost differences of delivering comparable educational services, recognizing diseconomies of scale in certain districts, and adjusting aid for governmental overburdens. The state assumes an obligation for education and sets out to rectify shortcomings at the local district level. A state school finance system that incorporates restitution theory would require a minimum tax rate, probably at a high level in the form of a chargeback to state aid, such as seen in many foundation program models.

**Positivism.** The highest level of philosophical equity is Rawlsian positivism. At this level, the state intervenes in behalf of certain classes of students. Equal distribution of resources and restitution are viewed as insufficient to compensate for the needs of handicapped children and pupils suffering from economic, cultural, or social disadvantages. Therefore, the state ensures that services for such children are appropriately funded and operated within the school finance system.
TABLE 4

PHILOSOPHICAL EQUITY HIERARCHY

<table>
<thead>
<tr>
<th>State Aid Program Structural Elements</th>
<th>COMMUTATIVE EQUITY</th>
<th>DISTRIBUTIVE EQUITY</th>
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<tbody>
<tr>
<td>Basic Allotment</td>
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<td>Equal Distribution</td>
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<tr>
<td>Adj. Basic Allotment, PDI</td>
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<td>Dist. Size Adjustment</td>
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<td>Positivism</td>
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<td>Min. ADA Adjustment</td>
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<tr>
<td>Regular Block Grant</td>
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<td></td>
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<td>Career Ladder Allotment</td>
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<tr>
<td>Edu. Improvement Allotment</td>
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<tr>
<td>School Incentive Grant</td>
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<td>District Incentive Grant</td>
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<td>Special Education Allotment</td>
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<td>Vocational Education Allotment</td>
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<td>Bilingual Education Allotment</td>
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<td>E.S.I.L. Allotment</td>
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<tr>
<td>Comp Educ Allotment</td>
<td>X</td>
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<td>G/T Allotment</td>
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<tr>
<td>PreK Allotment</td>
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<td>Grade Level Adjustment</td>
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<td>Transportation Allotment</td>
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<td>Foundation Prog. Subtotal</td>
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### TABLE 4 (Cont.)

**PHILOSOPHICAL EQUITY HIERARCHY**

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</table>

<table>
<thead>
<tr>
<th></th>
<th>X-a</th>
<th>X</th>
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</thead>
</table>

| Expr Tchr Entitlement  | X                  |                     |
| Capital Depreciation Allow | X                      |                     |
| Debt Service Allotment | X                  |                     |
| Power Equalization Aid | X                  |                     |
| Total State Aid        | X-a                | X                   |
|                        |                    |                     |
| Level of Local Supplementation | X                  |                     |
| Pupil Definition/Count |                    |                     |
| Max/Min Tax Rates      | X-c                | X-d                 |
| Save Harmless Provisions | X                   |                     |
| Municipal Overburden   |                    |                     |
| Sources of State Revenues/Taxes | X                |                     |
| Sources of Local Revenues/Taxes | X                |                     |
| Level of State Resources to Educ | X                |                     |
| State/Local Ratio of Program | X                |                     |
| Recapture*             |                    | X                   |
| Circuit Breakers*      |                    | X                   |
| Spending Restriction*  | X-c                | X-d                 |
| Regional Modifications ( & PDI)* | X-c | X-d |

*a = per capita  
*b = effort  
*c = maximum  
*d = minimum
The primary goals of state school finance models are adequacy, equity, and efficiency. With respect to equity goals, at least eight different types may be identified. The following school finance goals are cross-referenced to the current and proposed Texas school finance system in Table 5 below.

**Adequacy.** Adequacy, as a goal in public school finance, may be defined as sufficiency of resource inputs; that is, inputs in amounts proper to ensure desired outcomes. While adequacy may be viewed in terms of a base level of state aid (see above), adequacy of programs for particular types of students may also be a concern. Therefore, as seen in Table 5, there are few structural elements of school finance formulas that are independent of adequacy concerns. The classical question in school finance, addressed by Mort and others, has been: How much is enough? While conservation of resource inputs is an important goal, as shall be seen below, insufficient resources may result in a "paradox of thrift." Therefore, calibration of school finance formulas based upon measured needs is crucial to the productivity of an educational system.

**Equity.** For purposes of public school finance, equity may be defined as the equitable distribution of resources that arises from equitable tax burdens on citizens. Therefore, two types of school finance equity exist—pupil equity and taxpayer equity. Below are identified eight different equity goals. The first three are pupil equity goals and are concerned with how revenues are allocated to students. The last five are taxpayer equity goals concerned both with how revenues are raised and how the revenues are allocated, but to taxpayers, rather than pupils.

**Horizontal Pupil Equity.** The goal of horizontal pupil equity responds to the need to provide for the "equal treatment of equals." Perfect horizontal equity would be achieved when equal amounts of revenue were available per child from state and local resources combined. Therefore, horizontal equity requires that the state equalize local fiscal capacity and school district ability to make equal revenues available (per unweighted pupil).

**Vertical Pupil Equity.** The goal of vertical pupil equity is based on the concept of appropriate "unequal treatment of unequals." Perfect vertical equity would be achieved when equal amounts of revenue were available per "weighted pupil" from state and local resources combined. Vertical equity
requires that the state measure the dimensions of need of special classification of pupils; e.g., those requiring special education, bilingual education, compensatory education, and so on. As with horizontal equity, there is a need for the state to equalize local fiscal capacity to support additional costs of high-need students.

**Equal Opportunity.** The concept of equal opportunity is founded on the principle of nondiscrimination on the basis of characteristics such as race, sex, age, and so on. In school finance, students living in districts with low property wealth should not suffer discrimination in terms of resources available. Therefore, there should be no systematic relationship between district wealth and district revenue per child (weighted or unweighted). Ideally, there should be no difference in the average revenue per pupil. Realistically, the school finance system should serve to keep differences in revenue availability within a tolerable range through minimum tax effort, chargebacks, and other attempts at uniformity of effort.

**Horizontal Tax Equity.** Horizontal tax equity exists when there is equal tax incidence for taxpayers with equal ability to pay. The principle applies to both intra- and inter-district comparisons. Therefore, there is a need to equalize tax burdens within a district as well as across districts. The principle of horizontal tax equity is applicable to school districts as well as taxpayers; that is, tax incidence should fall equally upon districts equally able to pay. State revenues to districts should offset horizontal tax inequities; i.e., should equalize tax burdens for the provision of a defined educational program.

**Vertical Tax Equity.** Vertical tax equity exists when tax incidence varies according to ability to pay; that is, when taxes are progressive or at least proportional. The principle is applicable to both intra- and inter-district incidence. Therefore, a need exists to equalize tax burdens within a district, as well as across districts, with respect to ability to pay. The concept of vertical tax equity is applicable to school districts as well as taxpayers, meaning tax incidence should fall upon school districts according to differing ability to pay. State revenues to districts ought to compensate for and equalize tax burdens for the provision of a defined educational program. In order to ascertain the existence of vertical tax equity, district revenues must be analyzed along with tax incidence.

**Equal Yield for Equal Effort.** Equal yield for equal effort is obtained when districts with identical tax rates
(equalized) receive equal revenues per pupil. The concept that school finance equity is achieved when the revenues per student resulting from a given unit of tax effort are equal across districts is termed ex ante fiscal neutrality. To achieve this principle, state school finance models must distribute funds based on local tax effort as well as in inverse proportion to district fiscal capacity; e.g., through power equalization formulas.

**Spending Determined by Preference, Not Ability to Pay.** A condition in which district spending is determined by local preference, not ability to pay, exists when actual spending and wealth are not correlated. The difference between this principle and the equal yield for equal effort concept is subtle, in that the measures of ability to pay and effort are broader than mere property tax base or tax rate indices. The concept that school finance equity is achieved when the revenues per student resulting from a given unit of tax effort are equal across districts, after broader wealth and effort measures are applied, is termed ex post fiscal neutrality. To achieve this principle, state school finance models must not only distribute dollars on an equal yield for equal effort basis, but effort must be adjusted for such factors as personal income, tax exportability, and overlapping tax rates.

**Social Welfare Function.** The social welfare function of public school finance is attained when the net economic position of families is improved. In brief, when a family’s benefits exceed its costs, social welfare results. Benefits are usually viewed in terms of value of services received (education and other public services) less taxes paid. In a state school finance model, the social welfare function is obtained when a family’s educational benefits from state and local tax dollars (e.g., $3,000) exceeds state and local taxes paid for those benefits (e.g., $800). Amplitude of state aid derived from a variety of revenue sources other than individual property and consumption taxes is crucial to the redistribution of wealth necessary for a social welfare specification.

**Efficiency.** Two concepts of efficiency are pertinent to public school finance. The older idea is that efficiency means minimized resource inputs, frugality, and economy of operations. State school finance systems based on this type of efficiency reward economical practices (e.g., in linear density transportation formulas) and create a reliance on local dollars above the base level of state assistance (e.g., in a one-tier foundation program model). The more modern definition of efficiency is the distribution of monies to secure the best results; that is, it is recognized that "good schools" cost more and that "efficient schools" bring better results. Therefore,
efficiency is viewed in terms of input-output productivity analysis. From the state school finance perspective, efficiency involves securing the most positive results from monies spent by assuring: (a) an efficient organizational structure, (2) that monies are expended in the manner intended, and (3) that "adequate" or "quality" programs result from the monies expended.
### TABLE 5
SCHOOL FINANCE GOALS & STRUCTURAL ELEMENTS OF THE TEXAS SCHOOL FINANCE SYSTEM

<table>
<thead>
<tr>
<th>ADEQUACY</th>
<th>PUPIL EQUITY</th>
<th>EQUITY</th>
<th>TAXPAYER EQUITY</th>
<th>EFFICIENCY</th>
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<td>WAY RAISED</td>
<td>WAY RAISED AND ALLOCATED</td>
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<td>OPPORTUNITY</td>
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### TABLE 5 (Cont.)

**SCHOOL FINANCE GOALS & STRUCTURAL ELEMENTS OF THE TEXAS SCHOOL FINANCE SYSTEM**

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<th>Pupil Equity</th>
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<th>ADEQUACY</th>
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<td>SOURCES OF LOCAL REVENUES/TAXES</td>
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<td>STATE/LOCAL RATIO OF PROGRAM</td>
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| | | | | | | | | | | |

**State Aid Program**

- **Structural Elements**
- **Foundation Program Subtotal**
- **Local Fund Assignment (Minimum Rate)**
- **State Share**
- **Expr Tchr Entitlement**
- **Capital Depreciation Allowance**
- **Debt Service Allotment**
- **Power Equalization Aid**
- **Total State Aid**
- **Level of Local Supplementation**
- **Pupil Definition/Count**
- **Max/Min Tax Rates**
- **Save Harmless Provisions**
- **Sources of State Revenues/Taxes**
- **Sources of Local Revenues/Taxes**
- **Level of State Resources to Educ**
- **State/Local Ratio of Program**
### Table 5 (Cont.)

**School Finance Goals & Structural Elements of the Texas School Finance System**

<table>
<thead>
<tr>
<th>Adequacy</th>
<th>Equity</th>
<th>Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pupil Equity</td>
<td>Taxpayer Equity</td>
</tr>
<tr>
<td></td>
<td>Way Allocated</td>
<td>Way Raised</td>
</tr>
<tr>
<td></td>
<td>Horizontal</td>
<td>Vertical</td>
</tr>
</tbody>
</table>

**State Aid Program Structural Elements**

- **Recapture**: X
- **Circuit Breakers**: X
- **Spending Restriction**: X-C
- **Regional Modifications (PDI)**: X

**Note:**
- A = Minimum
- B = Maximum
- C = Floor
- D = Ceiling
- * = Not in Texas Program

---

*Social Welfare = Pare Function*
A Comprehensive Program

The proposed system of structural elements of the Texas public school finance system is based on the school finance goals of adequacy, equity, and efficiency. The purpose of the proposal is to establish a "menu" of potential formula elements that currently or prospectively address particular goals, to identify commonalities and relationships between structural elements, and to provide a basis for improvement of existing elements.

The structural elements of the Texas school finance model have been developed over a long period of time, often in isolation from each other element, and in response to a variety of motivations. The current system is complex, and the proposed comprehensive program is even more complex. As Berne and Stiefel state: "Particular school finance plans are often so complex that unless they are broken down into their structural elements, the relationship to equity goals will be missed." A similar statement could be made with regard to adequacy and efficiency. Therefore, as an integral part of the proposal, each structural element is analyzed individually and within the context of the school finance goals served.

The conceptual model utilized is a two-tier foundation program with the second tier based on power equalization principles. The model is based on combining the positive features of two conceptual models while minimizing the disadvantages of each. The basic foundation program model is designed to provide adequate revenues to each district in the state at a specified uniform level of tax effort (local fund assignment rate). The one-tier model generally lacks fiscal neutrality, especially when substantial local tax revenues lie outside the state's equalized program of support. However, the one-tier model is generally superior to other conceptual models in providing expenditure equality. Its other positive features are: (1) existence of a structure for the definition of adequacy; (2) assurance of a base level of revenues to support educational programs for children, even in low tax effort school districts; (3) familiarity of the Texas educational community; (4) reduced need to estimate local tax rate behavior in setting biennial appropriations; and (5) lessening the reactive role of the state treasury with respect to local tax rate selections, among others.

The power equalized second tier of the program is calculated to improve the ex ante fiscal neutrality of the system by providing equal yield for equal effort beyond the minimum tax rate. Since the state matching level has a
practical maximum, perfect fiscal neutrality is not achieved; however, the potential exists to ameliorate nearly all wealth differences over time. The conceptual model does not rely on radical alternatives such as recapture, expenditure limits, tax rate caps (other than those now in law), tax base restructuring, or school district consolidation.

**Basic Allotment**

**Goals Addressed:** Base Level Educational Programs; Equal Distribution; Adequacy; Horizontal Pupil Equity; Equal Opportunity; Spending Based on Preference, Not Ability; Equal Yield for Equal Effort; Social Welfare Function.

The current concept of a basic allotment for unweighted pupils is retained in the model. In a perfect world, the basic allotment should be adjusted annually to reflect the real costs of a minimum basic education when all additive formula factors are computed. The second-tier power equalization component then would enable districts to exceed the minimum basic education level based on local willingness to exert tax effort beyond the minimum required tax rate. The insufficiency of state aid was a point made in the Findings of Fact in *Edgewood I.S.D., et al. v. Kirby, et al.* (1987). Because of the cost to the state of a basic allotment that meets the specifications listed above, a phase-in process likely would be needed on a six-year planning horizon.

The current basic allotment is $1,350. The Accountable Costs Advisory Committee, a statutory advisory committee to the State Board of Education, has ascertained that the basic allotment ought to be $1,890 in 1989-90 and $1,973 in 1990-91. An immediate 40 percent increase in the basic allotment is called for, and the projected basic allotment in 1994-95 would be $2,344 (73.6 percent increase). Therefore, the basic allotment should be increased by $100 to $125 per year, at a minimum, until the appropriate future accountable cost is reached.

The local share of the Foundation School Program would need to be increased accordingly (see below) in order to: (1) keep the state solvent, and (2) promote fiscal neutrality and pupil equity by subsuming more total expenditures under the FSP "umbrella."

**Adjusted Basic Allotment**

**Goals Addressed:** Cost of Delivery of Comparable Services; Restitution; Adequacy; Vertical Pupil Equity;
Vertical Tax Equity; Social Welfare Function; Efficiency.

The adjusted basic allotment is obtained by increasing a portion of the basic allotment by a district's price differential index (see current formula in Table 1). The PDI factor "reflects the geographic variation in resource costs due to factors beyond the control of the school district." The PDI was first enacted in 1984 with a temporary formula. A Price Differential Index Advisory Committee was created in statute to recommend the formula adjustment biennially to the State Board of Education, which sets the adjustment. The temporary formula was replaced in 1984, but formula changes recommended in 1986 were rejected by the State Board. A 1988 PDI formula has been adopted to go into effect in 1989-90 unless it is changed by legislative action. Because of concerns from "loser" districts, a number of Texans, including the former State Board of Education, have recommended elimination of the adjustment and substitution of other factors in its place. Also contributing to criticism has been the complicated formula based on a three-stage regression analysis.

District Size Adjustment

Goals Addressed: Diseconomies of Scale; Restitution; Adequacy; Vertical Pupil Equity; Vertical Tax Equity; Social Welfare Function; Efficiency; Cost to Deliver Comparable Services.

A substantial argument could be made, on a theoretical basis, for the elimination of district cost differentials for small (low-enrollment) districts that do not meet a formula of necessity based on distance, terrain, and other factors. This argument would arise from a necessity to study the efficiency of school district reorganization. Financial support for unnecessary small districts was eliminated in 1975 but reinstated in 1977; such support was expanded in 1984 and again in 1985 when the adjusted allotment for district size was allowed to be applied in all formulas. Most states do not provide added financial assistance to small districts that do not meet some sparsity threshold. The principal arguments for retaining funding adjustments for low-enrollment districts are: (1) since such districts are permitted to exist, the state has an obligation to provide financial support for the benefit of pupils that offsets diseconomies of scale; (2) the existence of such districts supports a strong notion of local control in Texas; and (3) there are no clear efficiency standards relating to district size in general, or in Texas in particular.

The current formula includes a factor of .00025 to adjust for smallness of less than 1,600 ADA. This factor was
placed in law in 1977 to adjust personnel unit allocations to districts of less than 1,000 ADA and was based on bottom-line costs rather than research. Since such an adjustment is suggested for retention, a research rationale for the formula ought to be developed.

The current formula includes a factor of .0004 to adjust for smallness of less than 1,600 ADA when the district contains more than 300 square miles. In 1977, the legislature intended this provision as a sparsity adjustment to personnel units, and an assumption of necessity was made based upon district area. This assumption bears scrutiny, as does the basis of the formula, and a research base needs to be developed.

There is no current formula for density although some observers have argued that the PDI adjustment works to the same effect in application. The U-shaped curve related to economies of scale would justify a density adjustment as readily as a low-enrollment adjustment. The density formula, when developed, ought to be based on enrollment size rather than enrollment per area measurement. Past suggestions in Texas have recognized 10,000 ADA as a potential threshold for formula application.

No formula adjustment for fast growth districts exists in the current system. Such an adjustment did exist from 1977 to 1979; in 1979, it was vetoed and has never been resurrected. A fast growth adjustment assumes that districts experiencing rapid school population increases will have an inordinate amount of practical taxing capacity devoted to debt service. Therefore, the factor would not be required if debt service taxes were equalized or provisions were made for new construction on an equalized basis. The fast growth factor needs to be developed. Previous law established 6 percent growth as the factor necessitating an adjustment.

**Minimum ADA Adjustment**

**Goals Addressed:** Diseconomies of Scale; Restitution; Adequacy; Vertical Pupil Equity; Vertical Tax Equity; Social Welfare Function; Efficiency.

Current law provides for a minimum ADA to be used for aid calculation in certain districts. K-12 districts with less than 130 ADA receive a minimum ADA of 130 if located more than 30 miles from the nearest high school by bus route. K-8 districts (75 ADA) and K-6 districts (60 ADA) receive minimum ADA on the same basis. This is a true sparsity adjustment since a formula of necessity must be met. Still, the adjustments bear research scrutiny.
Regular Block Grant

**Goals Addressed:** Base Level Educational Programs; Equal Distribution; Adequacy; Horizontal Pupil Equity; Equal Opportunity; Spending Based on Preference, Not Ability; Equal Yield for Equal Effort; Social Welfare Function.

The regular block grant establishes the base level of state aid for nonweighted ADA. Therefore, the primary goal addressed is adequacy since the block grant is a function of the basic allotment and intervening adjustments.

Career Ladder Allotment

**Goals Addressed:** Base Level Educational Programs; Equal Distribution; Adequacy; Horizontal Pupil Equity; Equal Opportunity; Spending Based on Preference, Not Ability to Pay; Equal Yield for Equal Effort; Social Welfare Function; Efficiency.

The current provision for a combined education improvement and career ladder allotment is altered into two formulas (see Education Improvement below). The amount of the career ladder allotment is crucial not only to basic funding but also to local decision making on career ladder decisions. Therefore, the formula must be realistic in terms of numbers of teachers accessing each level each year. The mandatory career ladder allocations by local districts have been (per ADA) $30 in 1984-85, $40 in 1985-86, $50 in 1986-87, and $70 in 1987-88. Because of the vagaries of the Texas Teacher Appraisal System, nearly all teachers will eventually qualify for Levels II and III. Therefore, the mandatory allocation must be increased or criteria must be stricter for entry to each level.

Education Improvement Allotment

**Goals Addressed:** Base Level Educational Programs; Equal Distribution; Adequacy; Horizontal Equity; Equal Opportunity; Spending Based on Preference, Not Ability; Equal Yield for Equal Effort; Social Welfare Function; Efficiency.

The existing education improvement allotment is nothing more than general aid to school districts. It is proposed that the funds actually be dedicated to education improvement through site-based planning and improvement, local action research, staff development, and similar purposes. The formula allotment should be the difference between $140 per ADA and the career ladder allotment, meaning that the allocation will decrease over
time as the career ladder allotment increases and local improvement planning becomes a routine aspect of school district operations.

**School Incentive Grant**

**Goals Addressed:** Positivism; Vertical Tax Equity; Efficiency.

It is suggested that an equalized performance incentive grant for campuses be added to the school finance formulas. Individual campuses would qualify for the improvement grants under guidelines established in law or by the State Board of Education. The grant would flow to the district in behalf of certain campuses, and use of funds would be restricted to instructional purposes. The criteria would allow approximately 20 percent of the state’s campuses to qualify each year on the basis of improvement in priority areas.

**District Incentive Grant**

**Goals Addressed:** Positivism; Vertical Tax Equity; Efficiency.

An equalized performance incentive grant for school districts should be added to the school finance formulas as a companion to the campus performance incentives. Districts would qualify for the grant on the basis of improvement in priority areas and according to criteria established in law or by the State Board of Education. The grant would flow to the district for district-wide use. The criteria would allow approximately 20 percent of the state’s districts to qualify for the allocation.

**Special Education Allotment**

**Goals Addressed:** Corrective Educational Programs; Positivism; Adequacy; Vertical Pupil Equity; Social Welfare Function.

Current law would be retained for measurement of special education funding needs. The methodology involves the use of weighted pupils by instructional arrangement on a full-time equivalent (FTE) basis (see Table 1). The instructional arrangements in current law deserve thinking, and the statutory weighting needs to be updated through research.
Vocational Education Allotment

**Goals Addressed:** Remedial Education Programs; Positivism; Adequacy; Vertical Pupil Equity; Social Welfare Function.

Weighted FTEs should be retained as a measure of need for vocational education funding. Current law allows the State Board of Education to designate programs that qualify for FTE treatment and added funding. This feature should be retained to provide flexibility in creating new programs. The current system does not differentiate funding by instructional arrangement within the vocational field. The statutory single weight needs to be updated through research.

Bilingual Education Allotment

**Goals Addressed:** Remedial Educational Programs; Positivism; Adequacy; Vertical Pupil Equity; Social Welfare Function.

Current formulas treat bilingual instruction and English-as-a-second language (ESL) instruction in a combined formula providing an add-on weight per ADA in the programs. The proposed system separates the two programs and weights them differentially. While pupil weighting by instructional arrangement has been proposed for bilingual education, the separation of funding weights from ESL provides the same effect since bilingual education is conducted in a self-contained arrangement. The statutory weight for bilingual education add-on ADA needs to be revised based upon research evidence.

ESL Allotment

**Goals Addressed:** Remedial Educational Programs; Positivism; Adequacy; Vertical Pupil Equity; Social Welfare Function.

Since there is no current separate statutory weight for ESL education, one would need to be created based on research. In the elementary grades, ESL instruction is generally delivered through a resource room arrangement, while in the secondary grades it is principally implemented through departmentalized instruction. Therefore, the potential exists for differentiated funding weights by instructional arrangement.

Compensatory Education Allotment

**Goals Addressed:** Remedial Educational Programs; Positivism; Adequacy; Vertical Pupil Equity; Social Welfare Function.
The current formula for compensatory education provides an add-on weight per pupil qualifying for free or reduced-price meals under the National School Lunch Program. This measure needs to be retained until a better measure can be agreed upon. Data from the Texas Educational Assessment of Minimum Skills (TEAMS) could be substituted; however, incentives would have to be introduced, or a three-year average would have to be used, in order to eliminate the financial disincentive of increased achievement. The current single weight should be retained to discourage school districts from pursuing more costly compensatory programs (e.g., resource rooms) that result from inefficiencies rather than added program costs.

**Gifted and Talented Allotment**

**Goals Addressed:** Positivism; Adequacy; Vertical Pupil Equity; Social Welfare Function.

The gifted/talented education allotment should be revised to reflect the move toward the K-12 program mandated by state law by 1990. Regular ADA (K-12) should be utilized instead of the current participant count. The current 5 percent cap on regular ADA should be retained to bar districts from increasing funding through wide identification of pupils. The other alternative would be state-defined criteria for pupil identification, but such an option would reduce local program flexibility. Therefore, a funding limitation would be preferable and would provide districts with a rationale for targeting a small population. The single weight now contained in law is scheduled for future increases but still bears research scrutiny.

**Prekindergarten Allotment**

**Goals Addressed:** Remedial Educational Programs; Positivism; Adequacy; Horizontal Pupil Equity; Vertical Pupil Equity; Equal Opportunity; Spending Based on Preference, Not Ability; Equal Yield for Equal Effort; Social Welfare Function.

Currently, prekindergarten funding is categorical and percentage equalized at the state/local sharing rate in the basic FSP. The purpose of categorical funding was to establish a sum-certain ceiling on the program. Since a program history has now been developed, the allotment should be added to FSP entitlements and fully funded in accordance with the established weight (1.50). Prekindergarten ADA is divided by two since the state supports only a half-day program. The weight now contained in law should be studied for appropriateness.
Grade Level Adjustment

Goals Addressed: Fiscal Equalization; Equal Distribution; Adequacy; Vertical Pupil Equity; Social Welfare Function.

No current provision is made for grade level weighting of pupils in the Texas program. Such a weighting did exist for adjusted personnel units from 1975 to 1984. The add-on weight then existent for grades K-3 was equivalent to .167 without the mandate of absolute class size maximums. State law now requires districts to maintain an absolute class size maximum of 22 in grades K-4, but no funding adjustment has been made because of an assumption that districts can shift resources. This assumption cannot be supported in actual practice.

Research supports an add-on weight of .20 to .25 in the grades affected by class size mandates, and .20 is suggested below (see Table 6). A district would not receive the additional funding for any grade at any campus not in compliance with the mandates. The potential loss of funds would provide a powerful incentive to districts to ensure that waiver requests would be kept to a minimum. The current legal provision that the cap is off during the last 12 weeks of the school year should not apply to districts that utilize the spring ADA count instead of the fall ADA count.

Transportation Allotment

Goals Addressed: Fiscal Equalization; Restitution; Adequacy; Horizontal Pupil Equity; Vertical Pupil Equity; Equal Opportunity; Vertical Tax Equity; Spending Based on Preference, Not Ability; Equal Yield for Equal Effort; Social Welfare Function; Efficiency.

The transportation allotment assumes that current linear density formulas, as well as route approvals, will be retained, but increased reimbursement levels will be implemented. The linear density groupings, from the highest reimbursement category to the lowest, are: 2.40 and above, 1.65 to 2.40, 1.15 to 1.65, .90 to 1.15, .65 to .90, .40 to .65, and .40 and below. These groupings need to be restudied based on more recent transportation data.

Foundation Program Subtotal

Goals Addressed: Base Level Educational Programs; Fiscal Equalization; Corrective Educational Programs; Remedial Educational Programs; Diseconomies of Scale; Cost of Delivery of Comparable Educational Services;
Adequacy; Horizontal Pupil Equity; Vertical Pupil Equity; Equal Opportunity; Spending Based on Preference, Not Ability; Equal Yield for Equal Effort; Social Welfare Function.

The subtotal of all structural element entitlements to this point provides the state's basic first-tier program of aid. The statewide subtotal is utilized to calculate the statewide local fund assignment (see below). All districts share in the state-wide local share of the structural elements appearing "above the local share line," while subsequent elements are not cost-shared by all districts. The state/local sharing ratio established by the relationship between the foundation program subtotal and the district local share of the FSP is utilized in formulas for the experienced teacher entitlement, capital depreciation allotment, and debt service allotment.

Local Fund Assignment

**Goals Addressed:** Fiscal Equalization; Fiscal Effort Uniformity; Equal Distribution; Restitution; Positivism; Horizontal Pupil Equity; Vertical Pupil Equity; Equal Opportunity; Horizontal Tax Equity; Vertical Tax Equity; Spending Based on Preference, Not Ability; Equal Yield for Equal Effort; Social Welfare Function.

The local fund assignment (LFA), or local share computation, is the crucial element in determining the equity of the first-tier foundation program. The local sharing rate will need to rise from the current 33.3 percent of statewide FSP costs to 40 percent of such costs in order to: (1) control state costs, and (2) bring more local expenditures under the FSP "umbrella," thereby reducing unequalized local enrichment of the FSP. A percentage local share, as seen in current law, serves this purpose. A negative aspect of a floating local share is that local financial planning is impaired because all state costs (and, therefore, the local share) are not known until after all district entitlements are known, usually about May. However, a fixed local share rate is difficult to deal with politically since there will always be pressure on legislators to leave the fixed local share rate low as it is reset each biennium.

The current formula of 33.3 percent of the statewide FSP, to be shared by all districts in keeping with their proportionate share of the statewide property tax base, is the mathematical equivalent of 31.45 cents per $100 applied to each district's equalized property base. As the state share is increased, this LFA tax rate will also rise; the LFA tax rate likewise rises as state costs increase. In a high-level
state-defined program, the LFA tax rate could rise to as much as 50 cents per $100 (see Table 6). It is suggested that the LFA tax rate become a minimum required local tax rate for participation in the state aid program.

**State Share**

**Goals Addressed:** Base Level Educational Programs; Fiscal Equalization; Corrective Educational Programs; Remedial Educational Programs; Diseconomies of Scale; Cost of Delivering Comparable Educational Services; Adequacy; Horizontal Tax Equity; Vertical Tax Equity; Social Welfare Function.

The state share is simply the difference between a district's FSP entitlements and its LFA. A state/local matching rate is established for percentage equalized allotments discussed below.

**Experienced Teacher Entitlement**

**Goals Addressed:** Fiscal Equalization; Restitution; Adequacy; Vertical Tax Equity; Spending Based on Preference, Not Ability; Equal Yield for Equal Effort; Social Welfare Function.

The experienced teacher entitlement is important for two reasons: (1) it is the only funding formula that addresses specifically the impact of the state minimum salary schedule on district costs, and (2) its existence provides local districts with no disincentive to hire experienced personnel. Indirect adjustments are made through the PDI formula, and adjustments could be made through the basic allotment, if the basic allotment increases proportionately to the minimum salary increases each year. The formula in current law needs to be revised to provide an adjustment to instructional salaries. The experienced teacher entitlement is calculated "below the local share," on a percentage equalized basis, so that not all districts have to share in the state costs.

**Capital Depreciation Allowance**

**Goals Addressed:** Fiscal Equalization; Equal Distribution; Adequacy; Horizontal Pupil Equity; Vertical Pupil Equity; Equal Opportunity; Vertical Tax Equity; Spending Based on Preference, Not Ability; Equal Yield for Equal Effort; Social Welfare Function.

The capital depreciation allowance is designed to account for depreciation costs of existing facilities on which
debt has been retired, for which cash was paid, or which were funded through non-voted debt. The purpose is to fund, on an equalized basis, renovation or replacement of such facilities. Facilities with debt are treated below. New construction could be financed through the allowance if the purpose is to renovate or replace existing facilities and fixed equipment. Receipts, including local share, would be deposited by the district to a Capital Construction Fund in the district's account structure, where it could be accrued, along with interest, until a renovation or replacement project could be funded. Use of the funds would be restricted to capital improvements, beyond normal maintenance and operations.

The suggested formula utilizes weighted ADA to account for special program costs and class size maximums, as well as to provide for vertical pupil equity. The formula amount is suggested at $75 per weighted ADA but would need periodic updating based on average construction costs for instructional facilities. A constant (K) factor is not suggested but could be used to control state costs.

Debt Service Allotment

Goals Addressed: Fiscal Equalization; Equal Distribution; Adequacy; Horizontal Pupil Equity; Vertical Pupil Equity; Equal Opportunity; Vertical Tax Equity; Spending Based on Preference, Not Ability; Equal Yield for Equal Effort; Social Welfare Function.

The debt service allotment is allocated on a power equalized basis according to local tax effort. While all debt obligations of the district are equalized by the allotment, a constant (K) factor is utilized to limit state participation to: (1) payment of principal, and (2) assistance for instructional facilities only. All eligible debt would have to be voted prior to July 1 preceding September 1 of the fiscal year start. Non-voted debt would not be eligible under this allotment; however, such debt could be aid from operating cost allotments, as is presently the case. No debt service aid would be provided for new construction funded partially by the state from a state capital fund or the capital depreciation allowance. The allotment could not be accumulated; that is, the district would have to spend its annual allocation for the retirement of principal. The district would be allowed to reduce its actual debt service levy from the calculated levy to reflect state receipts.
Power Equalization Aid

Goals Addressed: Fiscal Equalization; Equal Distribution; Restitution; Adequacy; Horizontal Tax Equity; Vertical Tax Equity; Spending Based on Preference, Not Ability; Equal Yield for Equal Effort; Social Welfare Function.

Power equalization aid is based primarily upon an equal yield for equal effort assumption. As the second-tier foundation program, it is a significant factor in the fiscal neutrality of the total program. The tax rate to be equalized is selected locally, within limits. The limit established in the suggested program is 35 cents per $100 of maintenance and operation tax rate (equalized) above the required minimum rate (see Table 6). The guaranteed yield from each cent of tax effort is $28 per ADA, which is the yield received by a district at the state average property value per ADA times 1.333. Actual yield to the district is based upon district property value per ADA in relation to the guaranteed tax base.

An argument could be made for the utilization of weighted ADA in the power equalization formula. However, if weighted ADA were utilized, one could argue that additional yield gained from program weights rightfully should be allocated to the specific programs generating the yield. Utilization of total ADA (unweighted) allows power equalization aid to be treated as general aid available for any legal expenditure.

The power equalization formula could be used for the entire funding paradigm, rather than as a second tier. However, the existence of a first tier guarantees a minimum basic education in districts that do not express a willingness to exert tax effort beyond the required minimum. Thus, local control is still preserved while student needs are addressed. Conceptually, the first tier and second tier are not different from a full district power equalization program where: (1) a minimum tax effort is required, and (2) yield is differentiated for the minimum tax rate and the excess tax rate.

Total State Aid

Goals Addressed: Base Level Educational Programs; Fiscal Equalization; Fiscal Effort Uniformity; Corrective Educational Programs; Remedial Educational Programs; Diseconomies of Scale; Governmental Overburdens; Cost of Delivering Comparable Educational Services; Commutative Equity (Budget-Balanced Districts); Equal Distribution; Restitution; Positivism; Adequacy; Horizontal Pupil Equity; Vertical Tax Equity.
Pupil Equity; Equal Opportunity; Horizontal Tax Equity; Vertical Tax Equity; Spending Based on Preference, Not Ability; Equal Yield for Equal Effort; Social Welfare Function; Efficiency.

Total state aid addresses all school finance goals in some way. The suggested program, when translated into fiscal terms (see Table 6), provides a system of equalized support from state and local funds up to $3,943 at a tax effort of 85 cents per $100 (equalized). The total state support in the system is 56 percent of total costs.

TABLE 6
Recalculation of FSP Aid for a Sample District

1. Calculation of Basic Entitlement
   A. Basic Allotment = $1,730
   B. Adjusted Basic Allotment (ABA) =
      \[[(BA \times .63) \times PDI] + (BA \times .37) =
      ((1,730 \times .63) \times 1.20) + (1,730 \times .30) =
      (1,090 \times 1.20) + 640 =
      1,308 + 640 = $1,948\]
   C. Small District Adjustment = Not Applicable
   D. Minimum ADA Adjustment = Not Applicable
   E. Density Adjustment = Not Applicable
   F. Fast Growth Adjustment = Not Applicable
   G. Basic Entitlement =
      \[\text{Reg. Program ADA} \times \text{ABA} =
      2,226.343 \times 1,948 = \text{4,336,916}\]

2. Calculation of Special Entitlements
   A. Career Ladder Allotment =
      \[\text{Total ADA} \times \$100 =
      2,367.965 \times 100 = \text{236,797}\]
   B. Education Improvement Allotment =
      \[\text{Total ADA} \times \$40 =
      2,367.965 \times 40 = \text{94,719}\]
C. School Incentive Grant =
   Campus ADA x $20 =
   412.50 x 20 = 8,250

D. District Incentive Grant =
   Total ADA x $12 =
   2,367.965 x 12 = 28,416

E. Special Education Allotment =
   Total Weighted FTEs x ABA =
   280.778 x 1,948 = 546,956

F. Vocational Education Allotment =
   Voc. Ed. FTEs x ABA x 1.61 =
   60.429 x 1,948 x 1.61 = 189,522

G. Bilingual Education Allotment =
   Bil. ADA x ABA x .21 =
   95.501 x 1,948 x .21 = 39,068

H. ESL Allotment =
   ESL ADA x ABA x .16 =
   78.137 x 1,948 x .16 = 24,354

I. Compensatory Education Allotment =
   NSLP x ABA x .20 =
   826.8 x 1,948 x .20 = 322,121

J. Gifted and Talented Allotment =
   Reg. ADA x .05 x ABA x .17 =
   2,226.343 x .05 x 1,948 x .17 = 36,864

K. Prekindergarten Allotment =
   Pre-K ADA x ABA x 1.50 =
   29.163 x 1,948 x 1.50 = 85,214

L. Grade Level Adjustment =
   K-4 ADA x ABA x .2 =
   1,000.465 x 1,948 x .2 = 389,781
M. Transportation Allotment =

<table>
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<tr>
<th>Category</th>
<th>Amount</th>
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<tr>
<td>Regular</td>
<td>157,732</td>
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<tr>
<td>Special Educ.</td>
<td>44,040</td>
</tr>
<tr>
<td>Voc. Educ.</td>
<td>3,479</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>205,251</strong></td>
</tr>
</tbody>
</table>

3. Total Cost of FSP

\[
\]

4. Calculation of Local Share of FSP

\[
\text{LFA} = \frac{\text{DPV}}{\text{SPV}} \times (N \times \text{FSP}) = 0.0006954 \times (0.40 \times \text{FSP}) \\
\text{or} \\
\text{LFA} = \text{DPV} \times 0.0050 \\
= 465,070,485 \times 0.0050 \\
= 2,325,352
\]

5. State Share (3. - 4.)
\[4,218,877\]

6. Calculation of Per Capita Entitlement

\[
\text{Prior Year ADA} \times \$273 = 2,337,700 \times 273 = 638,192
\]

7. Amount from Foundation School Fund (5. - 6.)
\[3,580,685\]

8. Experienced Teacher Entitlement

\[
\text{EXP} = \left[\left(\frac{\text{DAS}}{\text{SAS}} - 1\right) \times \left(1 - \frac{\text{LFA}}{\text{DFSP}}\right)\right] \times \left[.63 \times \left(\frac{\text{DFSP}}{\text{TA}}\right)\right] \\
= (1.0241 - 1) \times (1 - 0.355) \times (.63 \times 6,338,978) \\
= .0241 \times .645 \times 3,993,556 \\
= 62,078
\]

9. Capital Depreciation Allotment

\[
\text{Tot. Wtd. ADA} \times \text{CDA} \times (1 - \frac{\text{LFA}}{\text{DFSP}}) = 2,604,411 \times \$75 \times .645 = 125,988
\]

10. Debt Service Allotment

\[
\text{DAV} \times \text{DSTR} \times (1 - \frac{\text{LFA}}{\text{DFSP}}) \times K = 455,767,075 \times .00079 \times .654 \times .50 = 116,119
\]
11. Power Equalization Aid

\[
\text{PEA} = \left(1 - \frac{\text{DPV/ADA}}{\text{SPV/ADA} \times 1.333}\right) \times \left(\text{ETR} - \text{LFATR}\right) \times \text{GY} \times \text{ADA} \times 100^* \\
= \left(1 - \frac{196,400}{282,000}\right) \times \left(0.86 - 0.50\right) \times 100^* \\
\times 28 \times 2,367.965 \\
= \left(1 - 0.701\right) \times 36^* \times 28 \times 2,367.965 \\
= 0.299 \times 35 \times 28 \times 2,367.965 \\
= 293 \times 2,367.965 = 693,814 \\
\]

Where:

- **PEA** = Power equalization aid
- **DPV/ADA** = District SPTB value per ADA
- **SPV/ADA** = State SPTB value per ADA
- **ADA** = Best four weeks ADA
- **ETR** = Effective M&O tax rate of district
- **LFATR** = Local fund assignment tax rate (.0050)
- *** = Excess rate may not exceed .0035**
- **GY** = Guaranteed yield (SPV/ADA x 1.333 x .0001)

12. Total Foundation Entitlements

\[7. + 8. + 9. + 10. + 11. = 4,578,684\]

13. Total State Aid

\[6. + 12. = $5,216,876\]

Level of Local Supplementation

Goals Addressed: Base Level Educational Programs; Fiscal Effort Uniformity; Commutative Equity; Equal Distribution; Adequacy; Horizontal Pupil Equity; Equal Opportunity; Horizontal Tax Equity; Vertical Tax Equity; Spending Based on Preference, Not Ability; Equal Yield for Equal Effort; Social Welfare Function; Efficiency.

The principal cause of the lack of pupil equity and fiscal neutrality in school finance systems is the amount of unequalized local "enrichment" encouraged or allowed by the state program. The suggested program of school finance provides...
an equalized program at a high level, leaving minimal need for local enrichment revenues above the second-tier program of equalized reward-for-effort. Local leeway provides a method of funding local needs when state support lags, encourages experimentation and development of new programs, and gives significant local control beyond the state-mandated expenditure level. Therefore, the current statutory tax rate ceiling of $1.50 per $100 is retained in the suggested model.

Pupil Definition/Count

**Goals Addressed:** Base Level Educational Programs; Corrective Educational Programs; Remedial Education Programs; Positivism; Adequacy; Horizontal Pupil Equity; Vertical Pupil Equity; Social Welfare Function, Efficiency.

In the proposed program, the ADA statistic is retained as a measure of district need, primarily as an efficiency convention. A good case could be made for the ADM statistic in the construction support formula; but weighted ADA is used in this case. The weighted pupil statistic is used to measure vertical pupil needs. No need adjustment is included for migrant students, but districts with high migrant student enrollment could be accorded a separate pupil accounting period according to their needs. This would allow such districts to maximize funding for bilingual education, compensatory education, and other elements.

**Maximum/Minimum Tax Rates**

**Goals Addressed:** Base Level Educational Programs; Fiscal Effort Uniformity; Commutative Equity; Equal Distribution; Restitution; Adequacy; Horizontal Pupil Equity; Equal Opportunity; Horizontal Tax Equity; Vertical Tax Equity; Spending Based on Preference, Not Ability; Social Welfare Function; Efficiency.

The concept of a minimum required tax rate (see local fund assignment above) is new to Texas but is required for fiscal effort uniformity. The yield for the required tax effort in the first tier of the foundation program is approximately $58 per unit of tax effort, compared to $28 in the second tier. This yield system is consistent with the concept of a high level first tier, which provides a minimum basic education, and a second tier that does not overly stimulate local reliance upon the property tax. As discussed above, the maximum tax rate currently in law is retained.
Save Harmless Provisions

Goals Addressed: Commutative Equity; Horizontal Pupil Equity; Equal Opportunity; Spending Based on Preference, Not Ability; Equal Yield for Equal Effort; Social Welfare Function.

In general, save harmless provisions affect school finance goals in negative ways. However, such provisions are often necessary to protect local districts from radical decreases in state revenues and corresponding local tax increases. Therefore, two types of save harmless provisions would be recommended. The first would allow "loser" districts, should there be any, to have their losses scaled down over a reasonable period of time; e.g., two or three years. The second type of hold harmless provision would exempt districts from tax rollback elections in certain instances: (1) when replacing state aid losses with local tax dollars, (2) when increasing local taxes to maximize second-tier equalization aid, and (3) when increasing local taxes to reach the required minimum effort.

Sources of State Revenue/Taxes

Goals Addressed: Commutative Equity; Equal Distribution; Adequacy; Horizontal Tax Equity; Vertical Tax Equity; Social Welfare Function.

The suggested program of Texas public school finance has important implications for state revenues. Given the recent stasis or decline in the state revenue base, and given recent increases in state tax rates for the taxes utilized in order to maintain revenues, one might question how state revenues would be increased to support the future program. Aside from hoping for a more healthy state economy, the most apparent solution is a state tax on income, both personal and corporate. Texas is one of only about five states without a state income tax. While Texans have long held an animosity toward the tax, it is well recognized by many Texans that the state eventually will need to rely on the tax in order to improve the vertical equity of the state tax system, to obtain revenues necessary for public education and other essential state services, and to provide relief to other state taxes, many of which have reached a practical limit. The existence of a state personal income tax would also increase the feasibility of use of property tax circuit breakers based on income rather than the current exemption system.
Sources of Local Revenues/Taxes

Goals Addressed: Commutative Equity; Adequacy; Horizontal Pupil Equity; Equal Opportunity; Horizontal Tax Equity; Social Welfare Function; Vertical Tax Equity.

The sole source of tax revenues for local school districts in Texas is the ad valorem property tax. While this tax has been a consistent source of vital revenues for public education, it has been relied on too heavily as a source of funds for local governments, including school districts. Since property tax wealth is greatly disparate among Texas school districts, over-reliance upon the tax creates pupil equity problems as well as taxpayer equity concerns. No suggestion is made here that local tax bases be broadened to relieve property tax pressure. Instead, it is suggested that the state increase its participation in the funding scheme by utilizing more equitable forms of state taxation to replace a portion of local property tax revenues. Within this context, the state should undertake a planned program of local property tax relief that promotes fiscal effort uniformity at the local district level while removing the need for excessive local revenues to support public education.

Level of State Resources Devoted to Education

Goals Addressed: Commutative Equity; Equal Distribution; Adequacy; Social Welfare Function; Efficiency; Base Level Educational Programs.

One of the enduring equity problems in Texas public school finance has been over-reliance upon highly disparate local tax wealth as a funding mechanism. The proposed program increases state participation in the total program of funding to at least 55 percent instead of the current 50 percent. This increase addresses important goals, such as adequacy and equity, but raises some efficiency questions. The second-tier equalization program suggested above brings substantial improvement to the fiscal neutrality of the system but violates the traditional one-tier foundation program assumption that local revenues will be better managed than state or federal revenues. In the suggested program, adequacy and equity are priorities, and increased state participation in the process is a necessity (see below).

State/Local Ratio of the Program

Goals Addressed: Fiscal Equalization; Fiscal Effort Uniformity; Commutative Equity; Equal Distribution; Restitution; Horizontal Tax Equity; Vertical Tax Equity; Efficiency.
In order to improve the inclusivity of the state school finance program, it is prerequisite that the state share of total program costs increase, that more local revenues be brought under the equalized program, and that state tax resources be expanded while local tax resources are reduced. As mentioned, the suggested program increases the state ratio of total program funding to at least 55 percent from the current 50 percent (46 percent when capital outlay and debt service costs are considered). This ratio is increased primarily through: (1) new state participation in capital outlay costs, (2) new state participation in debt service costs, (3) expanded formula elements that reflect real costs of a minimum basic education, and (4) expanded second-tier equalized percentage matching of local tax effort formerly outside the equalized program.

Summary

The Texas system of public school finance has been the object of study and improvement for several decades. Changes to the system resulting from persistent concerns most often have not been based on rationally articulated school finance goals. The paper introduces a comprehensive proposal for improvement of the system based on an analytical paradigm encompassing school finance goals of adequacy, equity, and efficiency, with special emphasis given to equity goals.

The three analytical sieves utilized are: (1) core characteristics of a school finance program, (2) a philosophical equity hierarchy, and (3) the nexus of school finance goals and structural elements of the aid model. Discussion is given to the concepts embodied in each. The proposed comprehensive system then is discussed in relation to the analytical model. The proposed "menu" of Texas school finance elements promotes positive accomplishment of the goals of adequacy, equity, and efficiency.
NOTES

1. For a more detailed analysis of the original constitutional provisions, see Billy D. Walker, "Sources of Texas Constitutional Provisions for School Districts and Their Taxing Powers" (Austin: Texas Center for Educational Research, 1988). Article XI, Sec. 10, which granted taxing authority to incorporated cities, was repealed in 1969 as obsolete.


3. City of Fort Worth v. Davis 57 Tex. 225 (1882).

4. Texas Education Code, Sec. 20.04.


11. The Gilmer-Aikin Committee originally maintained that the MFP should include the costs of buildings, but this proposal was deferred until district reorganization was completed. It has never been implemented.


17. The Texas Legislature resumed the practice in the late 1950s. A constitutional amendment in 1963 repealed legislative authority to expend the corpus of the PSF.


19. **Ibid.**


28. Ibid.

29. Berne and Stiefel, "Concepts of Equity," p. 120.


Appendix 16

END

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