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ABSTRACT

This monograph investigates issues related to the financial support of rural schools. The first section describes various state formulas and the methods used to distribute funds to rural schools. It considers questions about the adequacy of funding adjustments based on sparsity and the relationship of such adjustments to equal educational opportunity. It also synthesizes the current research on the status of school facilities. This section of the discussion details the relationships among wealth, ability to pay, and the maintenance and capital expenditure problems that rural, small (and usually poor) school districts face. The second section describes some of the legal challenges relevant to rural and small schools currently before the courts. At the heart of these challenges is the inability of existing finance formulas to address adequately the needs of rural education. These challenges are compared to similar challenges brought by urban schools. The third section discusses state and local support mechanisms and details efforts by some states to make the tax base more responsive to rural education needs. It considers issues involved in reclassification and reassessment of property, including relevant economic concerns of primarily agriculture-based economies. Conclusions and recommendations include discussions about consolidation and school reform as related to equal educational opportunity. (Author/TES)

FINANCING RURAL AND SMALL SCHOOLS: ISSUES OF ADEQUACY AND EQUITY

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EXECUTIVE SUMMARY

Rural educators across the United States are aware of many problems that affect the successful operation of their schools. Critical problems concern school finance, and this monograph investigates issues related to the financial support of rural schools.

In the first section, the discussion describes various state formulas and the methods used to distribute funds to rural schools. It considers questions about the adequacy of funding adjustments based on sparsity and the relationship of such adjustments to equal educational opportunity. It also synthesizes the current research on the status of school facilities. This section of the discussion details the relationships among wealth, ability to pay, and the maintenance and capital expenditure problems that rural, small (and usually poor) school districts face.

The second section describes some of the legal challenges relevant to rural and small schools currently before the courts. At the heart of these challenges is the inability of existing finance formulas to address adequately the needs of rural education. These challenges are compared to similar challenges brought at the other extreme--by urban schools.

The third section discusses state and local support mechanisms and details the efforts some states have made to make the tax base more responsive to the needs of rural schools. It considers issues involved in reclassification and reassessment of property, including relevant economic concerns of primarily agriculture-based economies.

Conclusions and recommendations contained in this monograph include discussions about consolidation and school reform as related to equal educational opportunity. The recommendations include the following:

1. States should fund fully the formulas and programs already in existence. They should evaluate the impact of their formulas and their sparsity adjustments under full-funding allocations.

2. States should evaluate the effectiveness of current capital outlay provisions to determine if current funding levels--both from state and local sources--are adequate for current and future needs, with respect to maintenance and replacement of existing facilities and the need for new construction.

3. Rural school districts, preferably in concert with one another, must develop effective lobbying strategies. As their influence in the legislative process diminishes in many states, rural communities must communicate a unified concern for the survival of the rural school.

INTRODUCTION

Most people believe they understand public education. When they were children, after all, the vast majority of citizens rode school buses; ate countless school lunches; learned to read, write, and do math in public schools; took part in extra-curricular activities; and ultimately became productive adults in our society. As adult voters, our citizens often pass judgment on provisions that fund public schools. This participation is only proper, since economic support for schools comes from the taxes paid by them.

At the same time, the American public--and many of the policymakers who govern them--know much less about public school finance than they would care to admit. Perhaps this lack of understanding contributes to the financial plight that confronts rural and small school districts, many of which operate in impoverished communities. In such districts, a low level of funding makes difficult the delivery not only of a "thorough and efficient" educational program but an appropriate, contemporary one as well.

This monograph--written especially for policymakers and for those in leadership roles in rural school districts--considers the related problems of fiscal equity (for taxpayers) and equal educational opportunity (for students) in rural school districts. It considers the alternatives with which the problems have been addressed, and makes three simple recommendations based on those considerations.

Practical Benefits of Good Education

Many studies of the economic effects of education maintain that expenditures (the actual costs) for public education are an investment in society as a whole and the individual in particular (see for example, DeYoung, 1989; Summers, Bloomquist, Hirschl, & Shaffer, 1988). Analysis of these financial outlays documents countless productive outcomes, such that investment in education by local and state governments results in long-term economic benefits. A high level of educational attainment is associated with lower crime rates, higher standards of living, better medical care, and greater economic productivity (Cohn, 1979; Haveman & Wolfe, 1984; Rosenfeld et al., 1989; Summers et al., 1988).

Most such studies conclude that where education is not well-supported financially, communities suffer disadvantages that are not easily or effectively overcome without improvement in their base of human resources (for example, Rosenfeld, Bergman, & Rubin, 1989; Summers et al., 1988). Improved educational services are often cited as the critical element in plans to address these disadvantages, especially in rural areas (see for example, Hobbs, 1987; Nachtigal, 1982; Summers et al., 1988).

Providing for Equal Educational Opportunity

The unaided ability of local school districts to offer necessary educational services varies greatly from district to district. District wealth often varies by a factor of three in a given state. In a few states, available data reflect a hundred fold difference in the ability of poor versus wealthy school districts to fund public education (Verstegen, 1988).

If each district were responsible for the total cost of education, either of the following results would ensue:

(1) Certain communities would not be able to offer even a basic educational opportunity to students; or

(2) The residents of the poorest district would be taxed at exorbitantly high rates in order to offer a basic instructional program.

Compounding this dilemma, the wealthiest district would be able to offer a vastly superior public educational program with little, if any, taxing effort.

The constitutional responsibility for providing public education, however, rests primarily with each state. Regardless of specific state arrangements, each state has established a legal obligation to see that all residents of certain ages have equal access to a basic educational program. The state must define an appropriate educational program, and it must extend that program to all students. Further, access to this program--referred to as equal educational opportunity below--must be extended to the residents of rural, urban, and suburban school districts alike so that educational opportunity is not a function of local wealth (Webb, McCarthy, & Thomas, 1988). Concern for equal educational opportunity implies that the only limitations on achievement should reflect differences in individual students' aptitudes and aspirations.

Belief in the premise that a child's educational program cannot be a function of local wealth establishes the logic for state assistance to the local school district (Serrano, 1971). Whereas local school boards are responsible for policies governing day-to-day administration and instruction in each district, the various state legislatures and state

education agencies are ultimately responsible for insuring basic educational opportunity for students in all districts.

Implementing the concern for equal educational opportunity depends, in the political and economic realm, on the notion of equity for taxpayers in each state. Whereas the cost of providing equal opportunity in poor (often rural and small) districts may be arguably greater than in other districts, the ability of local taxpayers to provide for that extra cost is, in poor districts, less than in other districts.

To implement equal educational opportunity among both wealthy and poor districts, the state must devise plans to tax the wealth of all of its residents. Without special funding arrangements, poor districts (among which number many are rural and small districts) will be asked to do more for their students with fewer resources. That is, in order to implement equal educational opportunity, the burden placed on taxpayers who live in poor and in wealthy districts must, in some fashion, make adjustments for local differences in taxpayers' ability to pay for educational services.

For these reasons, many observers believe that the related concepts of equality of opportunity for students and equity for taxpayers are in the best interests of individuals, communities, states, and, ultimately, the nation as a whole.

Rural, Small, and Poor Districts

Rural school systems frequently show signs of distress and occasionally number among the poorest school districts in the nation (Stephens, 1988). Stephens (1988) reports that among the approximately 16,000 school districts in the United States, 75% had enrollments less than

2500 students, and 59% operated in nonmetropolitan areas. Among all districts, 51% were both rural and small, and 14% were rural, small, and poor. Rural, small, and poor districts enroll a total of approximately 1.3 million students according to Stephens.

The problems that rural and small school districts face are legion. Many rural school districts are faced with declining enrollments, aging facilities, limited curricula, diminishing political influence in educational issues, and a host of other problems (Stephens, 1988). The problems faced by educators and citizens in these districts also relate to concerns of the sort that confront all educators: excellence, equity, efficiency, and effectiveness.

In the final analysis, however, the simple fact remains that no matter how complex the problems actually are, the solutions lie in the availability of adequate and equitable resources--access to which reflects a district's economic health. Access to these resources is required if students' needs are to be addressed effectively. To many observers, the depth and complexity of the issues suggest that substantive and meaningful solutions must be sought if education and national economic productivity is to continue its historical advancement (for example, National Commission on Excellence, 1983).

SECTION ONE: STATE FINANCE FORMULAS: SPARSITY, ADEQUACY, AND CAPITAL OUTLAY

This section contains a discussion of several issues related to state school finance formulas and the effect of certain adjustments for sparsity and capital outlay on rural and small schools. Although the evidence presented below is based on a review of relevant literature and current research, the authors acknowledge a bias in the discussion that follows.

That bias reflects almost 30 years of experience working with schools in the rural Midwest. The authors address the issues that they have encountered most frequently in their experience.

Equally important problems, encountered in different regions by different researchers and practitioners, need, without question, to be investigated in other work. The authors' intention is to contribute to the overall discussion of the financial problems of rural and small school districts from the vantage of their knowledge and experience.

State Finance Formulas

School finance studies conducted during the early 1900s focused attention on several important issues: What level of education is "appropriate?" What share of the costs should be borne by the state? How much control should the state exert over the operation of local schools? And, what precisely is meant by the "equalization" of educational opportunity?

By the mid-1930s theoreticians such as Cubberley, Mort, Strayer, and Haig had studied these questions. They concluded that balancing the financial support among all school districts within a state would enhance

the educational opportunities available to all students (Johns, Morphet, & Alexander, 1983). In general, the results of these studies indicated the need for the use of formula distribution plans coupled with fair systems of taxation to attain a balance between state and local funds used in support of public schools.

Gradually, states began to assume a greater share of the costs of operating schools. From 1930 to 1980 the state share in support of public schools throughout the United States increased from 17 percent to approximately 48 percent (Webb, McCarthy, & Thomas, 1988). By 1979 every state except Hawaii used some kind of equalization formula to determine the exact amount of that share. Today, the distribution plans most frequently used by states include:

- combinations of flat grants with variations of a foundation program,
- the percentage or power equalizing program,
- guaranteed yield or guaranteed tax base plan programs, and
- combination programs with variations of foundation and other equalization schemes.

Although many variations exist, most authorities classify the formulas that implement the above plans as follows:

1. Flat Grant, Categorical, or Entitlement Programs;
2. Full State Support Programs; and
3. Equalization Aid Programs.

The discussion that follows provides a general overview of each of these formulas. Readers should remember that each state operates with a unique set of guidelines; hence, no single explanation of a formula or a funding plan describes every application exactly.

Flat Grant Programs

Flat grants are warrants paid to a local school district without adjustment for differences in local wealth (that is, ability to pay). Flat grant plans normally operate on either of two bases:

(1) a uniform rate, for example, dollars per pupil, dollars per mile, or dollars per teacher unit; or

(2) a variable rate that reflects prescribed needs, for example, size of enrollment or additional costs for students with certain exceptionalities.

Most states now use flat grants to provide supplemental aid. Programs and services funded in this way include transportation, the excess costs of special education, food services, textbooks, vocational education, and driver's education. Readers should remember that with flat grants, states make no adjustments on the basis of differences in districts' wealth.

The grant is made to all districts according to the kind of rate--uniform or variable--on which states base their plans. Whatever the basis of a state's flat grant plan, rich districts and poor districts alike receive the same payment per unit of measure. Rich districts, inherently more able to fund education, are free to raise additional revenue from their ample local property tax base. Moreover, rich districts will raise such additional funds with a lower tax rate than poor districts would need to apply if they were to raise a sum equal to that raised by the rich districts.

What usually happens, of course, is that poor districts choose not to pursue additional tax revenues. Indeed, when they do, their attempts often meet with the understandable resistance of taxpayers. As a result, flat

grants--whether based on a uniform or a variable rate--promote neither equal educational opportunity nor taxpayer equity. Flat grants are not fiscally neutral.

Full State Funding Plans

In the early 1930s, Henry Morrison, an education finance theorist, observed that the funding plans then in use--local support supplemented by flat grants for the most part--provided insufficient support for public education. He believed that only one distribution plan could guarantee equity throughout a state. In Morrison's view, that plan was one in which the state assumed responsibility for both taxation and fiscal administration for all schools. His model called for full state support of education.

Although the exact methods used for the distribution of funds under full state funding plans are often complex, the concept of full state funding is relatively simple. Full state funding requires states to find the entire cost of educational programs--through the use of flat grants or some other uniform distribution plan.

Hawaii is currently the only state using a full state funding plan. Within its seven taxing jurisdictions, local schools submit budget requests that are evaluated for funding by the legislature. Local property tax levies are not used to support education.

Formula Equalization Plans

As noted previously, many variations of equalization formulas are in use today. All operate on the assumption that the state and the local school district should share the costs of operating public schools.

Two assumptions help explain the way in which the costs and the shares will be decided. The following assumptions may be applied separately or in combination in formula equalization plans:

(1) The state sets a uniform cost of education and determines the local tax effort required to meet some stated minimum cost.

(2) The state allows local districts to determine their own costs and then adjusts funding to reflect differences in the wealth of the local districts.

The first assumption is often referred to as the "minimum foundation plan," and such plans are set primarily by the state. The second assumption underwrites "equalizing" or "guaranteed tax-base" plans, and such plans are set primarily by local districts.

The names and descriptions given to various equalization plans are taken from Salmon (1989) and Verstegen (1988), and are summarized in Table 1.

Table 1. Summary of Equalization Plans

General Term Used to Describe Equalization Plans	Common Names of Each Plan
Primarily State Set Programs	
Foundation	Fixed-Unit Equalizing Strayer-Haig Grant Minimum Foundation Plan

Primarily
Locally Set Programs

Percentage Equalizing and Guaranteed Tax Base	Variable Ratio Matching Variable-Unit Equalizing Guaranteed Tax Yield Guaranteed Valuation
Power Equalizing	Recapture Plan

Minimum foundation plans. The basic premise underlying the use of the minimum foundation plan, and any of its variations, is that the state sets the minimum local property tax rate to be used for education, the allowable expenditure levels for delivering educational services that the local districts can spend, or some combination of the two.

The minimum foundation plan is currently the most popular form of equalization used by the states. Thirty-three states currently use a form of the foundation plan as the primary scheme for the distribution of funds (see Table 2). First advocated in the early 1920s for the state of New York, the intent of the plan was to guarantee that districts would spend at least the minimum level required by the formula.

Although the early formulas contained provisions that proved to be inequitable, their use attempted to require local taxpayers to contribute a fair share to the operation of local public schools. The state would then contribute to equalize the ability of local school districts to provide educational programs without forcing some localities to "over-tax" in order to fund to the minimum level.

Table 2. States Currently Using Minimum Foundation Formulas

Alabama	Louisiana	Ohio
Alaska	Maine	Oregon
Arizona	Maryland	South Carolina
Arkansas	Minnesota	South Dakota
California	Mississippi	Tennessee
Delaware	Nebraska	Texas
Florida	Nevada	Vermont
Idaho	New Hampshire	Virginia
Illinois	New Mexico	Washington
Indiana	North Carolina	West Virginia
Iowa	North Dakota	Wyoming

Percentage equalizing and guaranteed tax base. In these plans the state shares in the support of education at a level determined by local districts. Percentage equalizing (PE) and guaranteed tax base (GTB) formulas attempt to adjust for local differences in wealth, or ability to pay. PE and GTB plans differ, respectively, in whether or not the plan adjusts the expenditure side of the equation or the taxing side. The two sides of the equation are, of course, related.

Classic explanations of PE plans detail the fact that a district decides to fund education at some percentage increase above the previous year's expenditure. The state then contributes its share based on the relative wealth of the district. The state does not impose minimum controls on the expenditure levels set by the local district, but the state does set the percentage of the total cost it is willing and able to support.

District power equalizing plans. The last of the foundation plans to be discussed is the district power equalizing plan (DPE). A product of the late 1960s and early 1970s, DPE plans resemble the GTB or PE plans

previously discussed. Only a few states with both extremely wealthy school districts and extremely poor districts (Johns, et al., 1983) have implemented DPE plans.

Under DPE plans, the state requires wealthy districts to support poor districts via a wealth recapture operation. Every district with an assessed valuation greater than that set and guaranteed by the state pays back the difference. In practice, wealthy districts receive little or no state aid.

The intent of DPE programs and of most GTB plans is to equalize the spending power generated by mill (that is, the taxable unit), not the level of actual spending or the "real" ability to pay of each district. Where assessments are not uniform throughout the state, the very same property--a particular warehouse, farm, or home, for example--may have a very different assessment in each locality. As a result, the ability of the mill (or taxable unit) to generate revenue would be determined by the assessment procedures used in each locality, not the "true" value of the property being assessed.

For this reason, assessment rates that vary among districts make equalization plans difficult to enact. To rectify the inequities in assessment practice, complex formulas adjust local assessed valuations according to current market values or to the income-earning capacity of the property itself. The potential of this adjustment and subsequent loss in state aid to some school districts distinguishes the power equalizing plans from the other education finance equalization plans. Assessment and reclassification issues, which figure prominently in power equalization formulas, are examined in the discussion that follows.

Eight states use either the percentage or power equalizing formula as their primary method for distributing the costs of education in the state (see Table 3).

Table 3. States Currently Using Percentage or Power Equalizing

Colorado	Kansas
Connecticut	Michigan
New York	Rhode Island
New Jersey	Wisconsin

Combination Programs

Eight states currently employ a combination of programs to determine the state share to be paid to each district in support of public education (see Table 4). These combinations include the use of basic foundation levels to determine allowable expenditures and either power or percentage equalizing plans to determine the actual share of state and local support.

Georgia and Missouri combine the minimum foundation plan with a guaranteed tax base plan that adjusts district wealth. Montana uses a combined foundation and guaranteed yield arrangement, whereas Kentucky, Oklahoma, and Utah combine a foundation formula with power equalization. Pennsylvania and Massachusetts combine percentage equalization and a minimum foundation cost of education to determine the state share.

For example, in Pennsylvania the legislature annually sets the basic expenditure level for education and agrees to fund to that level on the basis of a weighted average daily membership for each local district. The share of that cost level which each local district must fund is then determined by a formula which adjusts the market value of property in that

district to set an "equalized mill." The equalized mill, in combination with an income tax adjustment, determines the local share of the minimum cost to be paid by the district. Each local district is then allowed to exceed the minimum based on the ability of the local taxpayers to support such costs.

Table 4. States Using A Combined Formula

Georgia	Kentucky
Massachusetts	Oklahoma
Missouri	Pennsylvania
Montana	Utah

Sparsity Adjustments and Questions of Adequacy

Although the intent behind the funding plans described previously was to promote equal educational opportunity and taxpayer equity, the political and economic context of education has changed, and continues to change. Over the years several factors have contributed to increasing disparities in the effectiveness of these formulas.

State officials have made adjustments to account for the exceptional costs of educating students in rural areas. Readers should note that the sparsity (low population density) that defines ruralness imposes special burdens on school districts operating in rural areas. Transportation costs are higher in these districts, and comparatively small enrollments result in inherently higher teacher-pupil ratios in many rural schools, even among those in which consolidation has produced larger schools. By adjusting for

sparsity, some states have attempted to address the problems. Other states have, within their basic formulas, made adjustments for the higher costs inherent in operating rural and small school districts.

Two issues emerged in the previous discussion. These are (1) the structure of the sparsity adjustment and (2) the adequacy of funding levels associated with those allowances. These issues are discussed in the sections that follow.

Sparsity Adjustments

The per pupil cost of providing equal educational opportunity in rural areas throughout the United States can be high. Hence, several states adjust their basic aid formula to account for such additional costs. The discussion that follows divides the analysis by type of primary control--state (minimum foundation plan states), local (equalizing plan states), and mixed (states combining features of minimum foundation and equalizing plans).

Primarily state-control states. In all, 28 states make provisions for sparsity, whereas 22 states do not. Twenty-five of these 28 states currently adjust for sparsity within their state formula (minimum foundation or equalizing), and three states have special programs which are funded outside of the equalization formula (Salmon, Dawson, Lawton, & Johns, 1988).

As noted previously, 33 states use a minimum foundation formula to fund educational costs. In 11 of these 33 states, sparsity adjustments include per pupil allowances as additions to districts' current enrollments.

In four other minimum foundation states, adjustments in instructional unit allocations (that is, in pupil-teacher ratios) attempt to allow for the increased costs of education in rural areas (see Table 5). The particular arrangements used in these four states vary as follows:

- North Dakota, which applies a weighting factor to high school enrollment at 1.2 FTE, allows high schools with fewer than 75 pupils to count an additional 0.5 FTE for state aid purposes. North Dakota also allows districts to count students in 1-teacher, 1-room elementary schools at 1.30 FTE.

- Texas allows school districts with fewer than 130 pupils to use 130 as a "minimum" average daily attendance (ADA), with additional allowance for districts serving an area of over 300 square miles in extent.

- Florida adjusts FTE's for sparsely populated districts (less than 14,000 FTE) as one of 53 "cost factor" adjustments, and Nebraska adds 10%, 20%, 30%, and 40% to the basic need formula for districts with 4, 3, 2 or 1 person per square mile.

- North Carolina adjusts the pupil-teacher ratio for sparsely populated areas, and Wyoming allows adjustments in each category of weighted student for qualified rural districts, according to the number of students in membership. Under this arrangement, the lower the membership, the higher the weight applied to count pupils.

Four foundation program states use other subsidy grant adjustments within their formula for sparsity, as follows:

- Maine allows adjustments for the high cost of operations in certain geographic regions and small school units.

- Oregon makes grants to "approved and necessary" small schools.

- Iowa adjusts the FTE by 0.5 for districts which share teachers for economic reasons.

- South Dakota reduces the required mill ratio for small districts.

Table 5. Predominantly State Control States with Adjustments for Sparsity/Population Density within the Foundation Formula

1. Predominantly State Control States Using a Per Pupil Unit Adjustment

Arizona	Minnesota	North Dakota
Arkansas	Nebraska	Texas
California	Nevada	Washington
Florida	New Mexico	

2. Predominantly State-Control States Using Instructional Unit Adjustments

Idaho	North Carolina
Louisiana	Wyoming

3. Predominantly State-Control States with Other Subsidies Adjustments

Iowa	Oregon
Maine	South Dakota

4. Predominantly State-Control States with Special Adjustments

Ohio

5. Predominantly State-Control States with No Adjustment

Alabama	Maryland	Vermont
Alaska	Mississippi	Virginia
Delaware	New Hampshire	West Virginia
Illinois	South Carolina	
Indiana	Tennessee	

In addition, Ohio provides extra funding for three small districts on Lake Erie Island. Thirteen foundation program states make no adjustment for sparsity.

Primarily local-control states. Of the eight states classified as having predominantly local control (percentage or power equalizing) formulas, six states have no allowance for sparsity (see Table 6). In these states, the assumption is that poor, small, and rural local districts will establish budgets that in effect balance local ability to pay for

higher costs due in part to possible diseconomies of scale. That is, these states expect their poor districts to set higher costs initially.

For example, the Kansas School District Equalization Act (KSA, 1986) established four budget categories based on enrollment. Small and predominantly rural districts had median budget limits ($4601 per pupil) that were higher than those of larger districts in the state ($2880 per pupil). The state then contributed its share, based on the local budget and a local district ability to pay calculation. Hence, the need for need for additional sparsity adjustments should be moot.

The remaining two states in this category do distribute sparsity funds. Connecticut uses a flat grant allocation to certain "small" districts, and Colorado allows districts to estimate costs using a bonus entitlement for small attendance centers as part of the state formula calculation.

Table 6. States with Adjustments for Sparsity/Population Density within Predominantly Local Control Formulas (the Percentage and Power Equalizing)

1. Predominantly Local Control States with Some Adjustments

   Colorado - in Formula
   Connecticut - flat grant $25/pupil

2. Predominantly Local Control States with No Adjustments

   Kansas
   Michigan
   New Jersey
   New York
   Rhode Island
   Wisconsin

3. Mixed Formula States with Adjustments

Georgia - flat grant	Montana - in Formula
Kentucky	Oklahoma
	Pennsylvania
	Utah

4. Mixed Formula States with No Adjustments

Massachusetts	Missouri

Mixed-formula states. For the eight mixed formula or combination program states, two states (Missouri and Massachusetts) have no adjustments. Five states (Montana, Kentucky, Oklahoma, Utah, and Pennsylvania) make allowances within their formula (see Table 6).

In the determination of the local school district budget, Pennsylvania allows percentage increases in allowable costs for districts with student membership less than 1500 Average Daily Membership (ADM). The Utah formula makes additional units of funding available to small elementary schools below 165 ADM, junior high schools below 389 ADM, and high schools below 417 ADM.

Only one state--Georgia--funds sparsity categorically. Georgia allows rural, isolated and poor districts to adjust their level of need to that of the district at the 90th percentile of wealth; the state funds the difference in full.

Adequacy

The absence of sparsity adjustments in many states certainly contributes to taxpayer inequity in such states. Taxpayer equity and structure of funding formulas are not really the important issues, however much attention they may receive politically. The substantive issue is

really the adequacy of the support levels used to determine the equitable distribution of dollars to all school districts, especially to the rural, small, and often poor districts.

Even in those states that support sparsity adjustments to approximate vertical equity within their formula, if the base level is too low or underfunded, and the adjustments inadequate, rural and small districts will not be able to deliver "equal educational opportunity" in a "thorough and efficient" manner. According to Cooperman (1989), for example, the state formula in New Jersey has been underfunded in 11 of the past 14 years. Conversations with officials in various rural and small districts in New Jersey indicate that the result has been 8-10% increases in local funds to sustain existing programs (NJSBA, 1989).

Most states have historically attempted, in some way, to provide more adequate support for local districts. Nonetheless, actual expenditures, and the costs they represent, continue to vary by geographic location, and in many instances average expenditures actually vary greatly from the state-set funding level.

In Pennsylvania per pupil expenditures can vary from approximately $2500 in poor rural jurisdictions to over $7000 in wealthier suburban areas. The average expenditure in 1988 was $5063, yet the state-set minimum foundation funding level was set at $2150 (Pennsylvania Department of Education, 1988). Likewise, Iowa guarantees per pupil funding to $2250, while the state average was $3895 (Salmon et al., 1988). Indiana sets its level at $2550, whereas the average expenditure was $3616. New York sets a per pupil minimum at $3576, yet the statewide average expenditure is $6864 per pupil (Verstegen, 1988).

Such disparities--between the set funding level and the actual expenditures resulting in part from disparities in the costs of doing business--place poor rural school districts at a particular disadvantage for two reasons.

First, if the level of state support is inadequate, poor and primarily rural districts must either eliminate programs or increase the rate at which they tax property to generate additional revenue. Some states, however, place taxing or expenditure caps that actually prevent poor districts from raising additional revenue, even if patrons would support the additional burden.

Second, in many minimum foundation states with sparsity adjustments, the adjustment may be inadequate to fund even the average level of expenditure within the state. In this case, poor rural districts with low enrollments may be able to continue existing programs; they cannot, however, use the formula to generate sufficient revenue to support new or expanded instructional programs.

For example, recent studies have shown that the wealth of the local community is related to the ability of a school district to deliver microcomputer instruction to students (Honeyman, 1986). Moreover, wealth is a factor in the equitable distribution of computer resources for use by students in a state (King, 1986). Considering the probable importance of new technologies in education--both now and in the future--such findings are disturbing. They are all the more disturbing because many observers view technology as a possible solution to the dilemmas of rural education (for example, Barker, 1987; Monk, 1989).

Provisions for Capital Outlay and the Condition of School Facilities

State funding formulas of whatever sort support current expense accounts that fund programs and services to students, and these provisions have received the greatest attention with respect to issues of adequacy and equity. Provisions for maintenance and capital outlay, however, also relate to adequacy and equity issues. In 38 states, funding for major repair, renovation, and replacement of school facilities is covered in provisions for capital outlay and debt service found in separate legislative enactments in most states. Twelve states make allowance for capital outlay in their general formulas.

Throughout the nation, as school districts--including small, rural, and poor districts--have struggled to meet minimum state standards for educational programs, they have elected to defer maintenance and capital outlay to replace aging facilities. Thus, the issues of equity and equal opportunity inevitably affect provisions for maintenance capital outlay.

Currently, many districts are finding that they need to finance construction of facilities through lease-purchase agreements. Such agreements are usually paid out of current operations, with the assistance of Revenue Bond mechanisms, rather than General Obligation Bonds. Most observers agree that the lease-purchase option is viable in larger population centers and in comparatively wealthy communities. In order to determine the nature of the relationship between total debt and school construction, further investigation on a state-by-state basis is needed. The discussion that follows raises some of the issues that such investigations might consider.

Capital Outlay and Debt Limit Provisions

In general, local districts must raise revenue to support school construction. While some states have provisions for assisting local districts, as of 1988 fifteen states still had no provisions for capital outlay assistance for school construction (see Table 7).

Table 7. States with No Provisions for Capital Outlay

Colorado	Michigan	Oklahoma
Idaho	Missouri	Oregon
Iowa	Montana	South Dakota
Kansas	Nebraska	Texas
Louisiana	Ohio	Nevada

States with provisions for capital outlay. The remaining 35 states vary from full state support in Hawaii, Maryland and Maine--which attempt to fund 100% of debt service--to loan-fund programs in North Carolina and Virginia. New Hampshire funds 30% of the principal on bonded indebtedness, and Vermont funds a flat 30% of costs for approved projects, plus 20% of long-term debt service.

Twelve states (Alabama, Arizona, Florida, Indiana, Kentucky, Massachusetts, Mississippi, South Carolina, Tennessee, West Virginia, Wisconsin, and Wyoming) fund local district capital outlay reserves on a per unit basis as part of their state formula.

Among these states, those that provide a comparatively low level of support include the following: Alabama (which funds $58.50 per teacher unit), Indiana (which provides $40 per pupil in Average Daily Attendance [ADA]), and Mississippi (which provides $18 per pupil in ADA).

States that provide a comparatively high level of support include Kentucky (which funds $1800 per classroom unit for approved programs and supports debt service for districts that meet the required $0.25 local tax levy for capital outlay), Wisconsin (which shares costs up to $90 per pupil for debt service), and Wyoming (which funds the difference between $5850 per classroom and the yield expected from a 4 mill local district tax effort in support of capital outlay).

Other states factor a district's ability to pay into the calculation of state support for capital projects. Ten states (Connecticut, Illinois, Massachusetts, Minnesota, New Jersey, New York, Pennsylvania, Vermont, Washington, and Wisconsin) base their state contribution to capital outlay funds, to debt service, or to both, on the district wealth calculations used in their state formulas.For example, New Jersey and Pennsylvania reimburse districts for debt service on approved projects, according to an ability to pay ratio determined by an equalized district wealth factor.

New Jersey permits a district to calculate total debt service for a given year, plus budgeted capital outlay. The state then funds a state share according to the district's "state support ratio."

Pennsylvania determines the "cost capacity" of each building prior to construction. These values are currently set at $2300 per pupil for elementary school buildings and $3000 per pupil for high schools. The state reimbursement is then based on an adjustment according to a measure of the relative wealth--the "Market Value Ratio"--of the district.

Debt capacity limits. A vast majority of the states limit the level of debt (the so-called debt capacity) against which a local district can borrow. In general, 37 states limit debt capacity according to some

measure of property valuation (see Table 8). Readers should note that 10 of the 15 states that make no provision for state support for capital outlay (Colorado, Idaho, Kansas, Louisiana, Michigan, Montana, Nebraska, Ohio, Oklahoma, and South Dakota) are among the 37 states that impose limits on local districts' debt capacity.

The base against which states calculate these debt limits differs from state to state. In general, however, the limits currently in place range from 2% of a district's assessed valuation (in Indiana) to 29% of a district's assessed valuation (in Montana).

Three states (Florida, Minnesota, and Kentucky) limit debt to a level equivalent to the dollar value that a predetermined number of mills will generate.

Connecticut limits debt to 450% of revenue raised in taxes each year, and Oregon limits debt according to the number of classes operated by a district multiplied by a state adjustment factor multiplied by the assessed valuation. The adjustment factor in Oregon is .55 for elementary classrooms and .75 for high school classrooms.

Alabama uses a 30-year average revenue projection to cover debt service as the state cap on allowable debt. At present, only Tennessee and Virginia have no debt limit. Hawaii has full state support; and California, Illinois, and Alaska do not report any required debt ceiling.

Table 8. States That Limit Debt Capacity as a Percentage of Assessed Valuation

Arizona	Maine	New Jersey	Texas
Arkansas	Maryland	New Mexico	Utah
Colorado	Massachusetts	New York	Vermont
Delaware	Michigan	North Carolina	Washington
Georgia	Mississippi	North Dakota	West Virginia
Idaho	Missouri	Ohio	Wisconsin
Indiana	Montana	Oklahoma	Wyoming
Iowa	Nebraska	Rhode Island	
Kansas	Nevada	South Carolina	
Louisiana	New Hampshire	South Dakota	

The Condition of School Facilities

A growing concern throughout the United States is that school facilities are woefully inadequate and the methods used to finance America's educational infrastructure are deficient (Honeyman, Wood, Thompson, & Stewart, 1988; Walker, 1989). These observers report that the magnitude of the problem is enormous, and it may constitute the most important educational issue of the 1990s.

School districts across the country operate school facilities that are often unsafe, inadequate for enrollment, and inaccessible to special populations of students (Honeyman & Stewart, 1985a). Many school buildings need asbestos abatement, air quality improvements, new roofs, electrical upgrades, and other physical improvements. Increased demands for classroom space resulting from state mandated class-size reduction plans, new instructional programs for pre-school and high risk students, space required for the improved uses of technology in the classroom, and new developments in science laboratories continue to compound this problem

(Honeyman & Stewart, 1985b). These documented needs demonstrate that adequacy, like equity, is an issue in provisions for capital outlay.

A sizable proportion of o nation's rural school buildings are in need of repair, modernization, or replacement. Reports from many states have cited situations in which structural damage resulting from age, compounded by improper or deferred maintenance, has forced the closing of a number of school buildings. Reports have even detailed the collapse of entire sections of schools (New Jersey School Boards Association, 1989).

The broad issues of equality of educational opportunity and fiscal equity are found throughout the school finance literature with respect to educational programs and the current expense budgets used to fund such programs. As noted previously, issues of equity and adequacy are inherent in a provisions for capital outlay. In fact, a small and growing body of new research applies the doctrines of fiscal neutrality and equal educational opportunity to school facilities (Honeyman & Ste art, 1985b).

At the same time, the courts have shown a growing interest in the ability of local school districts to provide adequate facilities. Court cases from Tennessee, New Jersey, Texas, Missouri, Alaska, and West Virginia address facility issues in these states. This paper includes a consideration of these cases in subsequent discussion.

The intent of most current litigation can be described in the recent decision rendered by the Administrative Law judge hearing the Abbott v Burke case (1988) in New Jersey. In his report the presiding judge noted:

> It is quite obvious on this record that facilit'es present a statewide problem. Besides the differences in the quality of

> school facilities between poor urban districts and wealthy districts, our school facilities generally need modernization.... Similarly, I do not believe that widely differing physical plants can be justified on an equal protection basis....I FIND (Judge's emphasis) that a more systematic way of dealing with replacing and renovating outmoded physical plants should be incorporated into the financing system. (p. 605)

A recent study on school facilities used by rural and small schools in the United States described the implications of current methods used by school districts in these areas for financing school building problems (Honeyman et al., 1988). This report emphasizes the current "poor" status of school buildings, and the negative effects of deferred maintenance on the condition of school buildings.

Rural Facilities Study

This study was undertaken to estimate the condition of school facilities in rural and small school districts and to analyze the state and local mechanisms used to finance capital outlay funds for school construction (Honeyman, et al., 1988). The sample was drawn from districts in the fifty states with student enrollments less than 800 located outside of Standard Metropolitan Statistical Areas.

The study collected both district-level and building-level data. District-level data included information about the methods used by each district in support of capital outlay. Building-level data resulted in calculation of a Replacement Cost Index (RCI) for each building.

The study concluded that local districts in rural America are unable to fund capital outlay at levels needed to keep their buildings adequate, safe, and accessible to special populations of students. The evidence suggests that school buildings are deteriorating rapidly and that maintenance needs are increasing concomitantly.

The average building reported by Honeyman and his colleagues (1988) was built in 1946 at a cost of $745,213. The average amount of deferred maintenance approached $300,000 per building, and over one-half of the districts that responded reported that they considered their buildings were inadequate for various reasons.

This research suggests that nationally the cost of deferred maintenance for rural buildings is approximately $2.6 billion and the replacement cost for the 50 percent of the buildings that are inadequate, unsafe, inaccessible or approaching the end of their useful life will exceed $18 billion. Projected to the nation as a whole--that is to all districts whether urban, suburban, or rural--these data suggest that the aggregate cost of deferred maintenance and replacement approaches an estimated $234 billion, an enormous sum.

This problem is compounded by the fact that more than one quarter of the rural districts that responded are already exercising 100 percent of their debt limit. In fact, the majority of these rural districts are exercising approximately 50 percent of their allowable limits for capital outlay.

The RCI computed for the total distribution--when compared to the sources of contribution to capital outlay such as bonds, loans, state equalization aid, grants, and local sources--indicated a relationship between a school district's ability to generate funds for facilities and the condition of those school buildings. Further analysis revealed that school districts with low taxing ability were in fact those districts that showed the greatest levels of deferred maintenance.

This latter finding substantiated earlier claims about the relationship between district wealth and bonding capacity (Wilkerson, 1973) and the capital outlay funding mechanisms available to districts for use in support of facility projects (Honeyman & Stewart, 1985b). Those districts with the greatest need generally were least able to pay.

School districts that reported a high level of need almost invariably reported a high dependence on the bond mechanism. Honeyman and colleagues (1988) hypothesized that great dependency on bonds, combined with a low debt capacity, generates a cycle of insufficiency. This cycle entails the use of other funds, usually diverted from general operating funds, in an attempt to finance facility needs. As a result, the deterioration of both facilities and programs begin a mutually reinforcing cycle of decline.

Discussion

In a majority of the models cited above, rural and small schools are once again disadvantaged by the nature of those programs theoretically designed to assist them repair or replace school buildings. Low pupil counts, the inadequacy of the tax base, and the limits generally imposed on debt prevent such districts from generating the revenues necessary to maintain old buildings or to construct new ones.

The situation in Kansas illustrates the problems faced by many rural and small school districts throughout the United States. There is no state mechanism to support capital outlay and debt service in Kansas, and the state imposes a limit on debt capacity. School districts are allowed to levy an additional 4 mills for capital projects during a five year period. While this "4 mill/5 year" levy was developed to help districts renovate

and replace buildings, property valuations have not kept pace with the cost of construction. In many poor districts, an additional 4 mills--even if levied--cannot generate enough revenue even to perform a building survey, and the high cost of bonding in poor districts prevents many districts from up-grading their facilities. Many school districts have had no recourse but to ask the courts to evaluate their needs and mandate change.

SECTION TWO: LEGAL ISSUES AND FINANCING OF RURAL AND SMALL SCHOOLS

For the past twenty years, litigation has, unfortu tely, been the dominant mode of change in educational finance support hanisms. An aggressive history of litigation exists in the broad arena of fiscal support for schools, and major changes have been brought about in the fifty states. But like most reform, this reform, too, has been slow and changes have been incremental

Legal struggles over the financing of public schools are longstanding (see for example, Stuart v School District No. 1 of the Village of Kalamazoo, 1874). The unsuccessful attempt in McInness v Shapiro (1969) to force the state of Illinois to restructure its finance system marked an era of escalating concern over constitutional issues. In the seventeen-year period from 1969 to 1986, challenges were mounted in over half of the states (Webb, McCarthy, & Thomas, 1988). In the last two years a resurgence of litigation has occurred, with new cases filed in more than 22 states (Camp & Thompson, 1989).

Litigation about issues of school finance has been largely concerned with broad interdistrict equity challenges to state finance mechanisms (Camp & Thompson, 1989). The history of this litigation principally reflects issues at the state level, and the appeal process has helped formulate broad parameters within which the courts have considered questions of equity and adequacy (that is, provisions that support equal educational opportunity).

Numerous cases at the lower court level have not gained national attention to the same extent as cases affecting rural schools heard at higher levels, but some of these cases implicate problems of equity and

equal opportunity faced by rural districts. Although few of these cases have been initially brought on sharply defined rural complaints, many are couched in charges that larger districts are suffering losses in aid shifts or in urban/suburban controversies.

Awareness is growing that state mechanisms for financing schools may not be adequately sensitive to both rural and urban needs, and lawsuits are emerging that address the finance problems faced by both urban and rural schools. Two current cases illustrate the problems of large urban districts and rural schools and provide a basis for comparing and contrasting rural and urban finance problems.

Urban Versus Rural Issues

Substantial differences exist between rural and urban schools, and observers may regard these differences as obvious. Policymakers and educators nonetheless struggle with these differences, principally because government must operate judgmentally to apportion finite resources among rural and urban school districts to meet the different, but evident needs of each. In fact, a natural tendency exists among advocates of rural or urban districts to allege ownership of a greater share of those finite resources.

An Urban Challenge

Decline in the nation's large school systems is well documented, and growing sensitivity toward urban needs is dramatically illustrated by the case of Abbott v Burke (1984, 1985) in New Jersey. Abbott, a continuing struggle originating in the case of Robinson v Cahill (1972), illustrates both the permanence of finance issues and the growing awareness that the

nation's cities are experiencing severe difficulties in financing the cost of all governmental units, not just education.

Findings in Abbott. In a 607-page decision handed down in August 1988, Administrative Law Judge Steven Lefelt ruled that the New Jersey system of school finance could be found by a court to violate the New Jersey constitution. This decision was rendered more than seven years after the original complaint in Abbott was filed and more than sixteen years after the state finance formula was ruled unconstitutional in Robinson.

The logic of Judge Lefelt's ruling is apparent in the following seven findings, namely:

(1) There exist unmet educational needs in poor districts and vast program and expenditure disparities between poor urban and property-rich suburban school districts;

(2) The state finance mechanism contains systemic defects contributing to continued inequities;

(3) There are substantial statewide school facility needs that cannot be effectively met;

(4) Poor districts cannot fully meet student needs due to the operation and implementation of the Guaranteed Tax Base (GTB) financing system and political accommodations inherent in districts that must share tax bases with municipalities;

(5) The state constitution's thorough-and-efficient (T&E) clause that requires the state to address educational needs comparably so that all successful students can compete and function politically, economically, and socially is not being met;

(6) The system is not T&E because opportunity is determined by socioeconomic status and geographic location; and

(7) The system violates the state's equal protection clause and requires statutory changes.

The charges against the New Jersey system of school finance allege severe constitutional violations and imply that the concerns voiced in Abbott are deep and far-reaching. The evidence presented in Abbott goes

beyond sensational rhetoric and suggests that the problems faced by urban New Jersey schools are neither uncommon among large school systems nor exaggerated (Community Service Society of New York, 1987).

The data from New Jersey suggest that its urban school systems are among the poorest in the country. For example, in 1980 Camden ranked first in poverty for cities between 25,000 and 100,000. Moreover, 34 percent of its population received Aid For Dependent Children, of which more than 90 percent were Black or Hispanic. Similar data exist for other large New Jersey cities. These communities have been devastated as many of the wealthy have left or removed children from the public schools. As one witness said, the town of East Orange looks like Germany after World War II (Abbott, 1988).

The attack on the New Jersey system for financing schools aimed a sharp blow at funding derived primarily from a combination of local property taxes and state aid to education--which had been a progressive method of school finance when first proposed early in the century. In New Jersey districts, the local share in 1986-87 averaged 58 percent and the state share averaged 42 percent (Goertz, 1988).

Causes of inequity and inadequacy in funding. The Office of Administrative Law (OAL) judge noted that the state's share was declining. In the first year of Chapter 212 of the New Jersey Public Education Act of 1975, equalization aid comprised 56.8 percent of total state aid. By 1985-86 this share had dropped to 50.9 percent, and the governor's 1986-87 recommendation called for 50.1 percent.

The OAL opinion charged that the decrease in equalization aid, although accompanied by an increase in categorical aid, did not negate the

decline since categorical aid does not address the intent of equalization. In fact, disparities of expenditure based on property wealth in New Jersey are greater now than before enactment of Chapter 212 and greater than when Robinson first declared the state finance system unconstitutional.

Urban voters, moreover, are increasingly unwilling to approve educational expenditure increases as competing governmental units have simultaneously demanded upward budget adjustments--in part due to declining revenue from other sources, such as the federal government. The plight of cities is worsened as urban centers are increasingly experiencing municipal overburden.The OAL decision noted that local choice does not cause the expenditure disparities documented for the state. The increased costs of urban education are caused by increased concentrations of high-need populations left behind by suburban growth.

The expenditure discrepancies result from political pressures that prevent free exercise even of allowable spending incentives. The court noted, for example, that if all state incentives under the GTB formula for local initiatives had been exercised in Camden from 1977-1986, the total tax rate would have increased 188 percent above the state average, up 118 percent over the 1977 tax rate--which was already 170 percent greater than the state average in 1977.

The OAL recommendations. The detailed decision by OAL found multiple instances of disadvantage to the state's large urban centers, concluding that the entire education system in New Jersey expects and condones vast variations in educational quality among school districts.

In recommending changes for the state, the OAL judge identified acceptable parameters to include. The recommended changes entail (1)

combining a high foundation aid plan with comparable categorical funding for transportation and facility aid, (2) enhancing the powers of the state to move students between districts, and (3) reconfiguring district boundaries to eliminate districts that OAL considered either too large or too small (for a contrasting view of the effects of school size and efficiency, see Walberg & Fowler, 1987).

Relation of Abbott to rural problems. The problems of New Jersey and other states with large metropolitan areas cannot be ignored when examining rural education issues. Urban problems have an impact not only on the suburban and rural areas of the particular states in which the metropolitan centers are located, but also on the remainder of the nation. Concerns about municipal overburden, diminishing tax bases, desegregation costs, and other urban difficulties are indeed worrisome in the context of the economic reality that pits unlimited needs against scarce resources.

As urban self-awareness of problems grows--and as judicial and legislative action aimed at urban redress increases--rural and small schools in nearly every state must recognize that reallocation of resources results in net gains and losses. Precisely that recognition--together with the growing rural self-awareness that rural schools face problems that rival those of urban schools--has brought about an increase in litigation that evaluates the plight of rural communities.

A Rural Challenge

Direct court challenges to methods for funding rural and small schools are infrequent but powerful in their implications, especially in states with a large number of rural districts. Significant issues facing rural schools are evident in a current Tennessee case, Tennessee Small Counties

System v McWherter et al., (1988). Tennessee alleges nearly the reverse of the situation noted in the Abbott ruling in New Jersey: It charges that the state finance mechanism strongly favors urban and suburban areas of the state and denies rural and small communities equal access to funding.

This case was filed on behalf of 66 small school districts as a complaint for declaratory judgment and injunctive relief, seeking traditional protections under the Tennessee constitution and the Fourteenth Amendment to the U.S. Constitution. The case alleges that the state has denied equal protection to persons in smaller and poorer school districts by failing to provide adequate funding under the constitutional guarantee of education as a fundamental right.

Basis of case. The basis for the complaint rests in the operation of the state mechanism for financing schools, which the plaintiffs allege discriminates against rural and small school districts. Readers should recall that Tennessee is one of the 33 states that use a minimum foundation program (see Table 1).

The primary source for state funding of schools in Tennessee is the Tennessee Foundation Program (TFP). Plaintiffs charge that the TFP, together with other legislative provisions for financing education at the state and local level, are inadequate to meet educational needs in small and rural school districts. Tennessee charges that the operation of the program has created wide disparities in available revenue, violating the state and federal constitutional protections of equal opportunity by denying access to resources needed to carry out the work of the schools in these districts.

Operation of the TFP. Under the TFP, Tennessee law requires that a substantial specified minimum of local funding must come from local sales taxes and local property taxes. Although the Tennessee minimum foundation plan serves to provide a cost-shared minimum educational expenditure, the local district must provide the remainder, most of which it raises as local sales and property tax revenue.

The TFP establishes programs and cost differentials for regular, special, and vocational programs. Cost differentials are multiplied by FTE in ADA, summed, and multiplied by a training and experience (T&E) factor to yield the total TFP funds allocable by the state. The TFP is then funded at 92.5% from state revenues and 7.5% by the local community.

Raising the balance of program funds needed to support all programs (less categorical aid--for example, for transportation) is the local community's responsibility. As noted previously, local funding is derived from property tax revenues and from a local sales tax; however, only one-half of sales tax revenue is set aside for education (T.C.A., 1977).

Alleged effect of TFP. The plaintiffs in Tennessee argue that the provisions for raising the local share result in inordinate differences in ability to provide funds for education. They cite actual expenditure variations of $3,889.67 in the wealthiest district to a low of $1,656.33 in the poorest. A fundamental factor in the revenue difference lies in Tennessee's increasing reliance on measures that reflect local wealth. Sales tax dependency, for example, reflects local wealth, and state and local sales tax revenues constitute a total of one-third of all revenues for education.

The plaintiffs charge that the operation of the law requiring allocation of sales tax receipts in the home county is a major detriment, resulting in tax collection ranging from $74.47 per pupil to $946.50, for a net difference in available revenue of almost 1500 percent. Operation of the sales tax further restricts local educational expenditure through statutory limitations on sales tax rate, the percent allocable to educational units, and the amount of retail sales subject to sales tax.

Plaintiffs allege that when combined with a low foundation program (of which the local community must pay 7.5 percent) and substantial differences in retail sales activity inherent in rural and city districts, the law is so structured as to ensure grossly unequal educational opportunity in small districts. In fact, the plaintiffs allege that the TFP is a guarantee that revenue will not meet educational program costs in rural, small, and poor districts.

The plaintiffs offer evidence to support the contention of inadequate revenue capacity. They charge that the degree of equalization present in the TFP is insufficient to offset the effect of an inordinate sales tax revenue discrepancy (1500 percent, as noted previously). Plaintiffs also charge that the constitutional requirement guaranteeing education as a fundamental right cannot be met under the following existing conditions:

(1) Tennessee ranks last in educational expenditures nationally.

(2) State foundation aid underfunds an "adequate" expenditure level by 43 percent.

(3) As a result of the TFP, school districts cannot meet even the minimum accreditation standards imposed by the state.

The evidence presented cites small school districts that, because of insufficient local wealth capacity as defined by property wealth and sales tax revenue, must use worn and outdated texts, cannot meet state minimum pupil-teacher ratios, provide less comprehensive course offerings, must offer split-grade classes, and cannot purchase laboratory and computer equipment.

Relief sought. The Tennessee case seeks injunctive relief. It specifies violation of the state and federal constitutions, and it demands reformulation of the state finance structure. It also seeks to enjoin the defendants (state officials) from acting pursuant to existing law until the case is decided.

Discussion

The issues in Tennessee are just one state's experience with problems in funding rural schools. Tennessee, however, is a good example of a state with many rural, small, and poor districts. In a nation comprised of many rural states encompassing vast uninhabited land areas, other states face problems similar to Tennessee's.

Although each state's experience is unique, commonalities exist across rural states. These commonalities include diseconomies of scale associated with small district size (enrollment), remote location, and other geographic characteristics; poverty, low levels of educational attainment, and other demographic characteristics; property wealth dependencies, market changes that undermine traditional rural industries, and other characteristics of the political economy.

Of course, other states face severe problems in financing urban schools devastated by the erosion of their tax bases, municipal overburden, the growth of high-need populations, and other inordinate costs.

Whether arising in urban or rural problems, the legal challenges target the operation of state finance formulas, which must be aligned with principles of adequacy and equity in order to satisfy the courts. Such alignment is, however, a delicate task. After all, equal educational opportunity (adequacy) has never been satisfactorily defined, and provisions for ensuring taxpayer equity reflect political compromises of increasing sophistication and legal subtlety.

Whatever the theoretical and technical problems of defining and implementing adequacy and equity, the distinction between rural and urban problems is clearly increasing. Awareness of rural and urban issues is also growing, and state policymakers will, given inevitably finite resources, encounter a continuing challenge as they seek to fund education.

SECTION THREE: TAXATION AND PROPERTY TAX REFORM

The operation of public schools in the United States requires state governments to raise revenue for that purpose. That fact is an irreversible historical norm. Even under increased parental choice, perhaps accompanied by voucher plans to underwrite such choice, the role of state government in raising revenue will most certainly remain.

Many sources of revenue, which vary from state to state, are available to governments. Three major sources of revenue--income, sales, and property taxes--account for nearly all the monies used to fund public education. In 1987, the average level of state support for public education was approximately 47 percent (Salmon et al. 1988).

State Support

The determination of the state share to be paid in support of public, K-12 education is, of course, part of an intense political process (Sparkman, 1977), but states' appropriations to support public education are generally based on a number of projections. These projections include such items as: state income tax revenues, state sales tax revenues, state financial reserves, number of public school children, the cost of the previous year's programs, and the fiscal health of the state at large (Johns, Morphet, & Alexander, 1983). Obviously, these projections correlate strongly with one another. The data on which they are based are also largely cross-sections derived from the best evidence available at particular points in time.

The bulk of state tax support is generated from a combination of state income and sales tax. Several states do not have a state income tax, and

much of the support required in these states comes from the state sales tax.

Various other state taxes support public education, but their contribution is relatively small compared to revenue generated by income and sales taxes. Among the other sources of revenue that states commonly use to support public education are (1) taxes on motor vehicles, utilities, mining properties, and inheritances and (2) various licenses, fines, and fees. Some states designate revenues from lotteries and the interest from common funds for public education.

Local Support: Property Taxes

The local property tax is perhaps the most disliked tax in America. Property taxes generate nearly all local funds that support public education in the United States. Certain user fees, book rentals. site rentals, and so forth do contribute to school revenues in some localities, but they support public education to a small extent.

Most taxpayers see the property tax as unfair and heavily burdensome. Certainly, many concerns are valid. Nonetheless, the property tax is stable and it is relatively easy to administer. Moreover, it generally does tax wealth because citizens' wealth and the value of their property correlates strongly.

At the same time, nearly everyone contributes to the property tax in some form. The homeowner pays a tax on the assessed valuation of the home and property. The farmer may pay a tax on the property, the income earning potential of land, or the value of the capital investment in the farm. The renter, too, pays a share of property tax that is reflected in the rent

payment. The consumer contributes to payment of property tax through paying for the cost of overhead passed on in the price of goods and services.

Determining the Local Share

Generally, once all federal and state revenues have been determined, local districts must raise the remainder as the local share. Without exception, the local district is bound by either statute or other governmental directive or formula. These provisions determine how much the local share should be and to what extent that share may increase from the previous year's budget (Wood, 1987). Only with rare exception can a board of education unilaterally set the local tax levy without approval from the electorate, town meeting, state agency, or other governmental agency.

Most states allow the local levy to be set within budgetary parameters as determined by a specific formula set forth by the state legislature. With the exception of Alaska, New Mexico, and Hawaii, all states base their assessment of a local district's ability to fund its share of the costs of education on some mathematical formula that includes the use of property value (Verstegen, 1988).

Property Wealth and Income: One Example

Problems with heavy reliance on property tax to fund education are evident among the states served by the Mid-continent Regional Educational Laboratory (McREL). In general, these states rely more heavily than the national average on proper y taxes to fund education.

In these states and elsewhere the property tax base is eroding as the agricultural economy has faltered. Duncan (1989) estimated that one-fourth

of all inhabitants in 2300 rural counties in the U.S. rely on farm-based incomes, and that one-third of the inhabitants in these counties depend on manufacturing. Duncan (1989, p. 14) also estimated that rural income from all sources lags urban income by 75%.

Wealth. In his report of current realities in U.S. Agriculture, Duncan (1989) noted further that real wealth of farm property (per farm, in 1982 dollars) grew from a 1950 level of $75,000 to a 1980 high of $430,000 and subsequently fell to a 1986 low of $250,000. Only recently have these values begun to increase.

In six of the seven McREL states, at least one-third of each state's counties are agriculturally dependent. Five of those states rely heavily on local property taxes for funding education, and six of the states support more than 50 percent of all school revenues (McREL, 1987). Farm economy dependency in these states represents a significant relationship to the lack of available resources to support the work of the schools. In these states farm values have dropped between 17.4 and 39.1 percent, and farm incomes have dropped between 15.9 and 88.7 percent, a severe decline by any measure (McREL, 1987).

Income. Likewise, real net farm income (per farm, in 1982 dollars) fluctuated from a high of $26,000 in 1973 to a low of $15,000 in 1981 (Duncan, 1989). Estimates for 1988 net disposable income ($22,000 per farm) indicate a trend toward the 1970s level. Much of this increase, however, is the result of profitable corporate farms, which have absorbed unprofitable small and midsize farms. Small and midsized farms numbered 390,000 in 1981, but today they number only 290,000 (a seven-year decrease of over 25%). Today large farms with sales exceeding $500,000 account for

2% of the farms currently in operation, but they generate one-third of the sales (Duncan, 1989).

The recent decline of agricultural commodity and prices strongly affects farm income, and thus school finance as well. The experience of the last 15 years shows great fluctuations in farm income. Such fluctuations may increase the normal variability in local wealth, so that variation in wealth becomes an even more critical factor bearing on questions of taxpayer equity and educational adequacy. For example, today wealth per pupil reported by school districts in the McREL region varies by as much as 15:1 in Wyoming, with wealth per pupil ranging from $18,616 to $279,891. These wide differences in available tax base are characteristic of the region, with ratios of 10.6:1 in Colorado and 10:1 in Kansas where wealth ranged from $12,890 to $131,393. The least variation in taxable wealth per pupil is found in South Dakota with a ratio of 2.99:1.

Such differences are not uncommon elsewhere. In Kentucky and West Virginia, for example, the ratios are 8:1 and 6:1, respectively (personal communication with staff of the Appalachia Educational Laboratory, May 12, 1989). If left to support themselves, local school districts in each state would show substantial differences in the quantity and quality of the services available to students.

Revenue Variation and Tax Rates

State finance formulas have lessened the effect of widely disparate property wealth. Moreover, some revenue variation is acceptable, if it reflects the differential cost of serving high need populations of students.

Revenue. Nonetheless, wide variances in revenue still exist. Among the states served by McREL, for example, Wyoming--at 2.57:1--has the highest revenue variance ratio. The variations in the other states in this region resemble Colorado's (at 1.96:1) and Kansas's (at 1.67:1) (Mid-continent Regional Educational Laboratory, 1987). Such variations reflect economic conditions within each state. They indicate the difficulty that poor districts--in comparison to rich districts--face in funding educational programs.

Tax rates Heavy property tax reliance perpetuates funding problems through the widely varying tax rates that exist among rural communities. Poor rural communities receive lower tax yields for effort equivalent to that exerted by rich communities. In order to fund programs adequately, poor communities must levy at a higher tax rate. Observers have pointed out the additional tax effort required of poor communities for some time (Lowe & Pinhey, 1980; Tompkins, 1977; West Virginia Task Force on Rural School Districts, 1989).

This continuing fact of life in rural districts threatens the balance of equity. Tax rates vary greatly, for example, in the McREL region. Nebraska shows the greatest variance, with a ratio of 2.27:1. The other states show a ratio of somewhat less than 2:1.

The situation in other states may be worse. In West Virginia, for example, local revenues raised by regular property levies may vary by a factor of 4.6:1 because of large differences in assessment rates (based on data from West Virginia Task Force on Rural School Districts, 1989, p. 20). In fact the Task Force (1989, p. 20) reported that the wealthiest counties

in West Virginia could raise as much as seven times more per pupil than the poorest counties.

Relationship of revenue and wealth. The relationship of wealth and revenue is also apparent. The correlations between wealth and revenue for Colorado, Nebraska, and Kansas are .81, .73, .58, respectively. These statistics imply serious problems of adequacy and equity, as some communities are taxing themselves at a rate of nearly double that of other communities. In the McREL region the mean ratio (among all seven states) approaches 2:1.

Discussion

These data confirm the persistent relationship of reliance on local property tax to inequity and inadequacy. The data suggest that taxpayers residing in different districts are not treated equitably and that students attending school in those districts do not receive equal educational opportunity. Under current practice, school revenues depend on variable local property valuation, tax rates across communities vary by a 2:1 ratio, and wealth and revenue still show strong correlations.

For rural schools throughout the nation, and for the McREL region in particular, property tax burden appears to be progressively eroding the balance of equity. Lack of support for rural districts has been explained in part by the strength of legislators representing the highly populated suburban and urban areas of the state (personal communication with D. Dennis, office of the Commissioner of Education, Topeka Kansas, February, 1988). This issue will be discussed in the final section of this monograph.

Local Support: Property Assessment

Much of the concern over the use of the property tax to support the local share of education relates to property assessment and appraisal. To be effective in generating support for school districts, property values must be current. They seldom are, since once a property reappraisal is completed, its assessed values become quickly obsolete. Many states, rural and nonrural alike, face problems in bringing assessments up to legal and productive levels. Other pertinent issues include, for example, determining the appropriate rate of assessment, deriving the actual value of real property, and deciding whether or not property taxation should be related to its productive capacity or use value.

Appraisal: One Example

The issues involved in property appraisal are classically demonstrated in Kansas. Kansas is currently undergoing major changes in property appraisal resulting primarily from a system that allowed outdated property values to drive the state's revenue scheme.

Kansas, like many rural states, depends heavily on local real property values to fund governmental services, including education. The state's education finance formula is highly equalized, and the formula attempts to adjust for varied assessment local practices by using a "sales to assessment ratio." By constitutional requirement, all property was to be assessed at 30 percent of market value. Despite these safeguards, however, inaccurate property tax values still provide the basis for the determination of local school revenues (Kansas School District Equalization Act, 1986).

Despite the constitutional requirement for uniform property appraisal, annual studies conducted by the Kansas Division of Property Valuation have persistently revealed wide variation in actual assessment rates. Average assessment rates for rural and urban real property is 7.7 percent and 7.74 percent, respectively. These averages, however, disguise wide variations. For example, actual assessment rates have ranged from 5 percent among rural counties to a high of 23.44 percent among rural counties.

Within similar classes of property, rural assessments ranged from 5.0 to 12.7 percent and urban property from 6.4 to 23.4 percent. The largest variance within a single county ranged from 10.9 percent rural to 23.4 percent urban, a ratio greater than 2.5:1.

These vast differences in property appraisal forced the issue to the ballot. In November 1986, Kansas voters approved a constitutional amendment to provide statewide reappraisal. The new provisions establish property classifications that set differing levels of assessment based on a fixed percentage of market value. Nonetheless, observers are not optimistic. In fact, a major deterrent to educational improvement in Kansas is uncertainty about the actual <u>effects</u> of the reappraisal on both property taxes and, ultimately, revenue yield. This uncertainty stems from the fact that the property tax must support such a wide variety of governmental services in Kansas.

The depressed state of the two major industries--agriculture and oil--also contributes to uncertainty about how revenues actually <u>generated</u> by the reappraisal will be <u>used</u>. The discussion next considers this feature of rural economic reality.

Reappraisal and rural economies. Many states have felt the effects of decline in rural industries--agriculture, manufacturing, and energy resource extraction (see for example, Bagby et al., 1985; Deaton & McNamara, 1984; Deavers & Brown, 1985; Rosenfeld et al., 1989; Stephens, 1988; Summers et al., 1989).

When rural economies depend on a narrow base in one or more industries as is typical (Deaton & McNamara, 1984; Stephens, 1988), the specter of reappraisal can actually have a negative impact. Because rural areas are so dependent on a narrow tax base, and because economic restructuring has resulted in widespread deterioration in rural economies, reappraisals can actually contribute to a further narrowing of the tax base. Significant economic development seldom occurs in communities served by rural school districts, and as a result school revenues become increasingly dependent on industries representing only a few segments of the total state and national economy (Stephens, 1988; Summers et al., 1989).

Although economic development initiatives have stressed the need to expand and diversify the economic base of the rural community (Duncan, 1988; Hobbs, 1987; Midwest Research Institute, 1988), many rural communities struggle merely to maintain the status quo. When property wealth is the major source of revenue and when the tax base is not broadly dispersed over several economic segments, fluctuations in the financial health of a certain industry--such as energy or agriculture--are particularly detrimental to the availability of educational resources. Unless the state underwrites the majority of school finance costs, these

communities will continue to confront problems related to property wealth as the major source of revenue.

The provision of adequate state funding is, however, complicated by issues of local control. These issues inevitably surface as states supply a larger portion of local operating costs. Although it is typical for state education agencies to impose tighter accountability measures when they fund local costs at a high level, readers should note that a high level of support does not inherently call for the kind of accountability measures that states have typically imposed.

SECTION FOUR: CONCLUSIONS

Vast areas of the nation are encompassed by rural education. Because of the wide diversity of educational finance mechanisms that have developed across the individual states, the issues confronting rural education are equally vast and equally diverse.

The findings reported above suggest that rural school districts are confronted with difficult finance issues that usually defy local solutions. Sustaining and promoting equal educational opportunity in rural education is a continuing challenge, made more challenging still by the growing awareness of the critical needs that exist in many urban districts.

Consolidation

Despite a century-long trend of consolidation--in which a 90% reduction in the number of school districts has occurred in less than a century (Guthrie, 1979)--consolidation of school services in rural communities is a major concern of many rural citizens. They fear their communities will suffer further economic loss and reduced quality of life if consolidation occurs (Sher, 1986).

Consolidation is still a point of contention in primarily rural states, and fears about consolidation and loss of local control reflect genuine concerns (see for example, Dunne, 1983; Sher 1986; Tompkins, 1977). From a purely financial perspective, states and local districts together do face major issues regarding declining or low enrollments in rural schools.

Citizens' fears are tightly linked to state formulas, accountability to state education agencies, and reliance on property tax. The fears also relate most substantively to the apparent <u>need</u> to fund spiraling costs for

education in a postindustrial society, in which human capital is perceived to be a critical factor in national economic health (see for example, DeYoung, 1989).

Although this monograph cannot consider the complex issues surrounding consolidation in any detail, readers should at least be aware of the range of those issues. Related issues include the comparative advantages of small schools (see for example, Dunne, 1983; Friedkin & Necochea, 1988; Sher, 1986; Walberg & Fowler, 1987). Friedkin & Necochea (1988), for example, conclude that small schools located in poor districts are substantially more effective than large schools in poor districts. Using a New Jersey sample, Walberg & Fowler (1987) conclude that small districts are both more cost-effective and more educationally effective than large schools. Dunne (1983) stresses the importance of local control as an issue of cultural and political self-determination. Sher (1986) links the effectiveness of comparatively small community schools and local control in his analysis.

Reasons and Prospects for Consolidation

Consolidation may be a consequence of local inability to pay for a certain standard of educational services. It may also be a result of conditions imposed on rural communities. Of course, in some instances, consolidation may reflect local choice.

Desire to achieve greater internal efficiency, at least among some local school administrators (Smith & DeYoung, 1988), is one common motive for consolidation. Such a motive may result from despair about continued declines in enrollments--often associated with economic decline--or from the advantages of tax base expansion, enhancement of curriculum and

instruction, and in some instances, from the tax relief by qualifying for school aid where state finance formulas contain minimum enrollment thresholds.

Political considerations. When demographic changes result in legislative reapportionment, shifts in the political balance of power can provide the opportunity for states to mandate consolidation. State initiatives for consolidation have traditionally sought to overcome the diseconomies of scale believed to be associated with small size (Stemnock, 1974).

As they undertake such initiatives, states generally cite the opportunity to provide an expanded curriculum as a chief benefit of consolidation (for example, North Carolina State Department of Public Instruction, 1986). Critics (for example, Sher, 1986) dispute this argument, which they view as a cover for attempts to impose unrealistic standards of efficiency on rural and small schools. The only study to address the issue empirically (Monk, Haller, & Bail, 1986) concluded that high schools larger than 400 offer comparatively little curricular advantage.

According to Stephens (1988), population declines in non-metropolitan areas will continue to result in a loss of political influence at both the federal and state level. A major effect of demographic changes on rural education is the potential alteration of school finance formulas.

Kansas again presents a case in point. For many years, rural representation has dominated in the legislature. This traditional representation has put in place a school finance formula that recognizes

the effects of sparsity on educational costs, both for general education expenditures and for categorical expenses such as transportation.

Population in Kansas's urban areas is growing, however, as it is in many states, while rural population is declining, and Kansas now faces reapportionment of its legislature. Rural communities in Kansas face the near certainty that losses of rural representation will occur. In fact, in the past several years, growing awareness of the needs of the state's urban areas has caused the school finance formula to be modified several times to accommodate urban needs (KSA, 1986).

As demographic changes occur in many states, increasing awareness of urban problems may indeed eclipse the perception of rural problems. The issue of consolidation, therefore, may well continue to present complex problems to local communities and to the various states. The integrity of the community itself is threatened not only by the loss of a major source of pride and community activity (Dunne, 1983), but by economic loss as well (Sederburg, 1987). Although consolidation is infinitely more desirable as a result of local choice, the threat of consolidation--whether locally implemented or externally mandated--will doubtless continue to threaten the integrity of rural education in many communities.

Equal Educational Opportunity

The press of issues on rural education converges to raise a final question about equal educational opportunity in rural settings. In recent years, the various states have put a major emphasis on educational reform. Many states have made large investments in educational reform, and the cost of reform initiatives has been significant.

Reform Initiatives and Equal Educational Opportunity in Rural Schools

Nationwide, there has been a major overall increase in federal school funding, up $16.5 billion (26%) from 1980-87, though the federal share of education funding has actually declined (Stern & Chandler, 1987, p. 37).

State funding. State funding also substantially increased, but the effects varied sharply by region, from 8.9% in the Great Lakes to 39% in the Rocky Mountain region.The variation in individual states is even greater. Connecticut increased 71%, Vermont 73%, and Arizona 55%. Conversely, Nebraska, North Dakota and South Dakota made large increases from 1980-83 (64%, 35%, and 51%, respectively), but have provided only small increases since 1983, perhaps as a result of the rural economic decline.

According to Odden (1987), the first round of reform to raise educational standards in the various states cost an additional 20-25 percent, nationwide about $27.4 to $34.4 billion in 1987. The second wave of reform, designed to enhance the teaching profession, had an estimated cost of about $32.2 to $40.3 billion nationally (Odden, 1987).

Difficulties of reform in rural schools. Rural communities may be hard pressed to keep pace with the demands of reform (Brizius, Foster, & Patton, 1988). Particularly at issue are the difficulties associated with increased state requirements for foreign language courses, advanced science courses, and initiatives to improve teacher salaries. These issues raise major questions about equal educational opportunity among states in which education relies heavily on revenues generated locally by property wealth.

The increased standards inherent in reform initiatives affect all school districts. The new expectations, however, place at a disadvantage

those rural school districts already struggling to meet pre-existing state mandates. Although rural districts have sought alternatives to meet the increased expectations, it is not yet clear if such alternatives--for example, instruction delivered by microcomputer and satellite systems--will actually allow rural districts to meet the increased expectations (Monk, 1989).

These issues lead to questions of equal opportunity. While educational research has not demonstrated that funding and achievement covary tightly, the importance of resources in determining the outcomes of education is nonetheless apparent. One recent analysis of schools in Kentucky confirmed a positive relationship between expenditures and student achievement, with expenditures controlled for socioeconomic status (Howley, 1989).

Better schools are generally located in wealthier school districts. Such districts <u>are</u> better able to purchase resources that make a difference in the lives of students, including the services of excellent teachers. Studies confirm the relationship between teacher quality and student performance (for example, MacPhail-Wilcox & King, 1986). Rural districts are clearly at a disadvantage in competing for excellent teachers, because they cannot offer the incentive of high salary that may be required to convince teachers to relocate in rural communities.

In short, the provisions of recent reforms add yet another costly expense to rural education budgets. These additional expenses must be accommodated even though special needs in rural areas <u>already</u> include dealing with high cost factors such as sparsity, diseconomy of scale, extra transportation costs, and declining rural wealth.

The Urgent Need for Solutions

Of the issues facing rural education, the cost of maintaining long-established state standards, as in the Tennessee case, much less the cost of funding major educational reform, represents major challenges for rural states. Additional issues--including narrow and eroding tax bases, diminishing local control, and changing demographics--point up the need for dynamic and aggressive solutions, which must emerge soon (Thompson, Camp, Horn, & Stewart, 1988). These issues are complex indeed, and at times adequately financing the nation's schools may appear to be an insurmountable problem.

Nonetheless, any inquiry into the financial problems of rural school districts ultimately returns to the encompassing principles of adequacy and equity. How do states and local school districts assure constituents that funding is adequate to meet the educational needs of pupils? How is equity to be achieved when resource accessibility embodies such wide variations? If the intent of equity is to roughly approximate an equal opportunity to life's rewards, and if education is an important route to such rewards, how can adequacy and equity be achieved within scarce and uneven resource distributions?

Wealthy districts--whether they are urban, suburban, or rural--have little trouble raising revenue to support educational programs. Poor districts--especially rural or small districts--are, however, at a distinct disadvantage. As noted above, many states either adjust for sparsity on a per pupil or instructional unit basis or have no adjustments what so ever. As the net level of support provided by the state formula and the sparsity

adjustments decreases, and as enrollments fluctuate and economic declines occur in rural districts, the effectiveness of state support erodes.

Operating educational programs with low pupil teacher ratios is expensive, and the inadequacy of adjustments in many states directly affects a school district's ability to deliver more than just a "minimum program." Limited financial resources result in a lack of "breadth" of programs available to students in these affected schools. Again, many poor rural districts, encounter substantial difficulty in providing just the minimum program.

History has demonstrated that adequacy and equity play out in the courts and legislatures in slow and uncertain progress. The following questions challenge policymakers, practitioners, and researchers to seek new and improved ways for financing rural schools in a way that will satisfy the courts and secure this segment of the nation's productivity and prosperity through investing in student achievement:

(1) What are the trends for finance reform challenges, and what will ultimately be the effect of excellence reform on the balance of equity and adequacy related to rural education?

Finance reform is a complex process and challenges to existing state plans occur with great frequency at all levels of state government. Whether a local school board questions the state's determination of the local district wealth factor or a coalition of urban schools takes issue with the cost of transportation adjustment, these questions usually address the adequacy of the state formula as it relates to their specific needs. Adequacy of funding both within the formula and outside it (as local supplements) are vitally important to rural education. As a recent Illinois study indicated, small rural districts differ greatly from larger

districts in that they spend more per unit on "maintaining regular programs" (Ward, 1988, p. 10). While the funding for basic "minimum" educational programs may be sufficient, there remains very little margin for innovation or expansion.

As the various states evaluate the effectiveness of their respective finance formulas, adequacy issues and the definition of "minimum educational programs" must be addressed. Do disparities in sparsity adjustments result in undue burdens on rural taxpayers or more importantly, a diminished instructional program available to certain students in rural districts? Until a given formula is actually funded at the maximum prescribed level, questions related to equity are suspect. State policymakers must demand information to answer the question whether or not their state formulas and the various sparsity adjustments make adequate allowance for the cost of "realistic" equal educational opportunity for students in rural areas.

(2) What are the implications policymakers can derive with respect to potential equity challenges that concern capital outlay?

Issues surrounding the current condition and quality of school facilities are a national concern. All states have indicated that school construction needs are growing, and, in several instances, states have reported that such needs exceed the state's capacity to support the costs of construction. While rural and small schools are not alone in their need for new facilities, the higher per-unit cost of general operations in rural and small districts often focuses attention away from the district's need to generate funds for the repair and replacement of their schools.

Again, it is a question of the adequacy of those mechanisms whereby school districts can generate funds for school construction that must be

studied. Solutions to this problem are as varied as the 50 states. Should local districts be required to fund a percentage of fixed asset value for future building construction, or should districts be permitted to engage in lease-purchase agreements for such work? Should statewide debt limitations be relaxed or should bond capacity equalization schemes be developed using models such as the Replacement Cost Index?

Regardless of the mechanism used to address maintenance, replacement, or new construction, a clear awareness must exist at the state level that school officials in many rural and small districts face difficult problems. Adequate solutions are urgently needed, and carefully considered changes in state policy can contribute to the development of those solutions.

(3) How will rural education be preserved, funded, and improved in the future?

The future of rural education depends upon those engaged in its delivery. Parents, teachers, and administrator groups must vigorously address the benefits of the rural experience. Their message must be clearly stated and restated: Rural and small schools are a vital and productive segment of American education. As a group, such schools tend to focus resources on basic educational programs. They perform well and offer quality services to their students, community, state, and nation. But they do cost more to operate per student. Ward (1988, p. 13) concluded:

> Small and rural schools may present some unique problems, as well as opportunities, but as a class of districts they neither exceed nor lag behind in their ability to offer educational services ... [what is needed] is a change in attitude toward small rural schools.

Based on insight into these questions provided by the analysis presented in this and previous sections, this monograph concludes with three recommendations for action.

Recommendations

The first step in the solution to the issues confronting rural education is for states to fund fully the formulas and programs already in existence and to evaluate the impact of their formulas and their sparsity adjustments under full funding allocations.

Second, states should evaluate the effectiveness of current capital outlay provisions to determine if current funding levels--both from state and local sources--is adequate for current and future needs, with respect to maintenance and replacement of existing facilities and the need for new construction.

Third, rural school districts, preferably in concert with one another, must develop effective lobbying strategies. As their influence in the legislative process diminishes in many states, rural communities must communicate a unified concern for the survival of the rural school.

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