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## School Finance Reform and Impact on Property Taxes

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## SCHOOL FINANCE REFORM AND IMPACT ON PROPERTY TAXES

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In the period between June 1989 and June 1990, four state supreme courts invalidated their state's school financing schemes.<sup>1</sup> These cases are only the latest in a trend of school finance litigation that began in the late sixties, slowed in the early eighties, regained momentum after 1986 and has involved over half of the states in the union. Although the legal reasoning in these cases has varied, some cases focusing on equity, other cases on adequacy, the overriding imperative has been to correct inequalities in the distribution of per pupil tax revenues or expenditures across school districts. Since much of the funding disparities that these suits aim to address arises from disparities in inter-district property wealth, these rulings and the legislative reforms enacted in response to them (or in some cases, enacted to preempt such rulings) have affected the reliance placed on the property tax.

In this paper, we examine sources for public school funding, noting the secular trends and the variations across states and regions. We discuss school financing litigation, summarizing the legal theory and the cases, with some emphasis placed on the most recent rulings. We examine the data for states that have experienced adverse court action, i.e., rulings against the state, or have enacted reforms of their educational financing scheme to see the effect of the court action and reforms on the relative reliance placed on state revenues and on property taxes to finance primary-secondary public education. Finally, we speculate on the longer-term effect of these court cases and reforms, given other influences on state and local government finances.

### I. THE FUNDING OF PUBLIC SCHOOLING

The property tax has long been the mainstay of revenue sources for public education in this country. Beginning in colonial New England with the Massachusetts Act of 1647, which required the education of children and provided for an annual property tax for the support of public schools, the history of the tax is "inseparable from the movement for universal, compulsory and free education."<sup>2</sup> Although some other regions of the country were slow to follow New England's lead (for example, in 1902 less than three percent of North Carolina's school districts levied a local property tax for school support), they did follow. By 1930, 78.8 percent of all public school expenditures were financed by the property tax.<sup>3</sup> Since this peak, the property tax share of revenues has declined, more or less continuously, to its present (1987) level of 34.1 percent.<sup>4</sup>

The last 25 years has been a time of shifting financial support for public education away from the local level. The local share decreased by more than 20 percent between 1967 and 1987, from a level of 57.6 percent in the earlier year (Table 1). State aid now accounts for about half of all public education financing. With the Elementary and Secondary Education Act of 1965, a significant increase in federal support began. The federal share rose from 2.3 percent in 1967 to a peak at 8.9 percent in 1980, but since then has declined.

It is also important to note from these trends that within the declining local share there has been some reduction in reliance on the property tax. The property tax share decreased by more than the local share (13.0 percentage points compared to 12.4 percentage points) implying that local school districts were shifting to other sources of local funding. Ohio, for example, allowed school districts to use a local income tax.

The second panel in Table 1, which abstracts from the effects of the changes in federal aid, shows the same pattern of an increase in the state share. Furthermore, the trends are continuous, i.e., we observe neither a decrease in state share in the 1972-77 period, nor a slight increase in property tax share during the 1982-87 period. It seems clear that there is a pronounced shift towards state government financing of public education.

\*We wish to thank Will Myers, Mary Fulton, Paul Montello, Ferdinand Schoettle and David Green for their advice and assistance.

The bottom panel of Table 1 reinforces these findings with data from the National Education Association.<sup>5</sup> The NEA data are available to 1990, and suggest that the long-term trend of an increased state share has been arrested in the past three years. However, this conclusion is based on preliminary estimates for 1990 and historically these estimates are significantly revised.

As a final piece of the top panel of Table 1, we present some evidence on the uniformity in these trends. There has been a slight decline in the coefficient of variation for the state share and an increase for the property tax share (both calculated exclusive of federal aid). The former suggests that there is a modest tendency toward greater similarity among states in the state-local split of public education financing. The increase in the coefficient of variation of the property tax share suggests that some local school boards are using alternative local revenue sources. To illustrate, in 1967, there were 4 (24) states in which property taxes were 90 (80) percent or more of local school revenue, while in 1987, there were only 2 (19) states.

More evidence on the interstate variations in school finance is presented in Tables 2 and 3. Excluding Hawaii, which operates a state-level educational system, half of the states increased their state share by 10 percentage points or more between 1967 to 1987. States in the far west, especially California, Nevada and Washington, showed larger than average increases in state share and decreases in property tax share. On the other hand, in the southeast where there has traditionally been a heavy reliance on state funding and low reliance on the property tax, the changes were much more modest. Only seven states decreased the state share of financing, led by New York with a decline of 8.9 percentage points. The other side of this story is that the property tax share of education financing has declined in all regions. Only nine states show a greater reliance on property taxation in 1987 than in 1967.

The data in Table 2 add an interesting note to this trend analysis; that between 1982 and 1987 there was some shifting back toward more decentralized public school finance. The state aid share actually fell in the plains and far west regions and reliance on the local property tax increased in all of the regions west of the Mississippi River.

In 1967, three states (Delaware, Hawaii, and New Mexico) had state shares of 70 percent or more, while in 1987, eight states (Alabama, California, Hawaii, New Mexico, Kentucky, Washington, Delaware, and West Virginia) had state shares of 70 percent or more. On the other hand, the number of states with state shares of 20 percent or less declined from six (Connecticut, Iowa, Massachusetts, Nebraska, New Hampshire, South Dakota) to one (New Hampshire).

TABLE 1  
PERCENTAGE SHARE OF PUBLIC SCHOOL REVENUES  
Census Data

	1967	1972	1977	1982	1987	
Inclusive of Federal Aid						
Federal Aid	2.3	1.9	8.1	7.0	5.9	
State Aid	40.1	42.3	39.8	45.4	48.9	
Local Revenues	57.6	55.8	52.1	47.6	45.2	
Property Tax	47.1	47.3	39.5	33.9	34.1	
Excluding Federal Aid						
State Aid	41.1	43.1	43.3	48.8	51.9	
Local Revenues	58.9	56.9	56.7	51.2	48.1	
Property Tax	48.2	48.2	43.0	36.5	36.3	
Coefficients of Variation						
State Aid	0.39	0.36	0.38	0.37	0.35	
Property Tax	0.36	0.40	0.42	0.47	0.47	
	NEA Data					
	1970	1972	1977	1982	1987	1990 <sup>†</sup>
Inclusive of Federal Aid						
Federal Aid	7.3	8.0	8.4	7.4	6.4	6.3
State Aid	40.9	40.2	43.8	47.9	49.8	48.7
Local Revenues	51.8	51.8	47.8	44.7	43.8	45.0
Excluding Federal Aid						
State Aid	44.1	43.7	47.8	51.7	53.2	52.0
Local Revenues	55.9	56.3	52.2	48.3	46.8	48.0

<sup>†</sup>Estimated.

Sources: Bureau of the Census, *Finances of Public Schools*, Volume 4 of *Census of Governments*, various years; NEA/RCN *Estimates of School Revenue Statistics*, various years.

TABLE 2  
PERCENTAGE SHARE OF NON-FEDERAL FINANCING OF PUBLIC EDUCATION BY  
REGION<sup>†</sup>

	1967	1972	1977	1982	1987
New England					
State Aid	28.6	33.7	28.1	29.5	34.8
Property Tax	60.7	60.1	58.6	57.9	53.6
Midwest					
State Aid	48.2	47.3	37.4	37.3	41.3
Property Tax	42.9	44.5	31.0	30.9	29.6
Great Lakes					
State Aid	32.7	35.2	42.3	40.2	45.9
Property Tax	57.8	58.6	47.5	47.2	46.8
Plains					
State Aid	26.8	34.7	38.1	43.5	42.4
Property Tax	56.2	52.9	48.6	41.0	43.1
Southeast					
State Aid	58.6	62.0	56.1	59.1	62.7
Property Tax	28.8	25.4	28.4	24.6	23.4
Southwest					
State Aid	51.3	55.2	56.6	60.3	61.6
Property Tax	36.7	34.5	35.5	27.8	30.0
Rocky Mountains					
State Aid	38.5	42.7	43.0	45.1	51.8
Property Tax	45.3	45.0	39.9	36.1	36.9
Far West					
State Aid	43.4	43.4	59.6	70.9	67.7
Property Tax	47.4	49.2	32.5	20.8	25.6
United States					
State Aid	41.6	45.3	45.9	49.2	51.9
Property Tax	46.0	44.8	39.1	34.7	34.8

<sup>†</sup>Unweighted averages.

Source: Bureau of the Census, *Finances of Public Schools*, Volume 4 of *Census of Governments*, various years.

Table 3 summarizes the changes in state shares and in property tax shares between 1967–1987 by state. Also indicated in Table 3 are the states which underwent major public school financing reform or had an adverse court ruling between 1967 and 1987.<sup>6</sup> We would expect both of these events to increase the state share. Of the 22 states in which reform occurred, six experienced either little increase or an actual decrease in the state aid share. However, of the nine states experiencing adverse court rulings, in only one did the state share increase by less than 10 percentage points. This suggests that the court rulings have a greater effect; a supposition borne out by results presented below.

In summary, the data show a decline in the reliance on the local property tax over the last two decades, as public school revenues are increasingly coming from the state government fisc. This trend appears to have been accentuated by reforms of school financing systems, and especially by reforms mandated by the courts.

## II. SCHOOL FINANCING LITIGATION

Much, if not all, of the school finance reform that has been undertaken in the last twenty years has been motivated by actual or threatened litigation. Litigation has been and continues to be an attractive option for poorer, less legislatively powerful school districts because as Guthrie points out, “districts rich in property wealth had been able legislatively to protect their taxing and spending advantages.”<sup>7</sup> The decisions of the courts in these cases have turned on legal issues reflecting concerns not only of equity, but of adequacy as well.

In the late 1960’s and early 1970’s, there were four cases heard in the Federal courts leading up to the Supreme Court’s 1973 ruling *San Antonio Independent School District v. Rodriguez*. This case was argued on the basis of the equal protection guarantees of the fourteenth amendment; the court ruled against the plaintiffs, finding that education was not a fundamental right and that disparities in funding

TABLE 3  
1967–1987

## Change in State Share of Non-Federal Financing of Public Education (in percentage points)

Increased by more than 20	Increased by 10 to 20	Increased by 4 to 10	Increased or Decreased +/-4	Decreased by 4 to 10
California <sup>††</sup>	Arizona	Alabama	Delaware	Louisiana
Connecticut <sup>††</sup>	Arkansas <sup>††</sup>	Colorado <sup>†</sup>	Georgia <sup>†</sup>	Michigan
Idaho	Illinois	Florida <sup>†</sup>	Oregon	New Hampshire <sup>†</sup>
Indiana	Kansas <sup>††</sup>	Maine	Texas <sup>†</sup>	New York <sup>†</sup>
Iowa <sup>†</sup>	Kentucky	Mississippi	Vermont <sup>†</sup>	Rhode Island
Massachusetts	Minnesota <sup>†</sup>	Missouri <sup>†</sup>		South Carolina <sup>†</sup>
Montana	Nebraska	Pennsylvania		Tennessee
North Dakota	Nevada	Utah <sup>†</sup>		
Ohio	New Jersey <sup>††</sup>	Wyoming <sup>††</sup>		
	New Mexico <sup>†</sup>			
	Oklahoma <sup>†</sup>			
	South Dakota <sup>†</sup>			
	Washington <sup>††</sup>			
	West Virginia <sup>†</sup>			
	Wisconsin <sup>†</sup>			

## Change in Property Tax Share of Non Federal Financing of Public Education (in percentage Points)

Decreased by more than 20	Decreased by 10 to 20	Decreased by 4 to 10	Decreased or Increased +/-4	Increased by 4 to 12
California <sup>††</sup>	Arizona	Arkansas <sup>††</sup>	Alabama	Delaware
Connecticut <sup>††</sup>	Idaho	Louisiana	Colorado <sup>†</sup>	Michigan
Indiana	Illinois	Mississippi	Florida <sup>†</sup>	Oregon
Iowa <sup>†</sup>	Kentucky	Montana	Georgia <sup>†</sup>	Rhode Island
Massachusetts	Minnesota <sup>†</sup>	New Hampshire	Kansas <sup>††</sup>	South Carolina <sup>†</sup>
Missouri <sup>†</sup>	Nebraska	New Mexico	Maine	Vermont <sup>†</sup>
New Jersey <sup>††</sup>	Nevada	New York <sup>†</sup>	Pennsylvania	
Ohio	Oklahoma <sup>†</sup>	North Dakota	South Dakota <sup>†</sup>	
	Tennessee	Utah <sup>†</sup>	Texas <sup>†</sup>	
	Washington <sup>††</sup>	Wisconsin <sup>†</sup>		
	West Virginia <sup>†</sup>	Wyoming <sup>††</sup>		

<sup>†</sup> indicates states in which a reform of the education financing system occurred;

<sup>††</sup> indicates states in which there was a court ruling invalidating the extant school financing system.

Note: Excluded from this table are Alaska, Maryland, North Carolina, and Virginia, because data were unavailable for the earlier periods. Hawaii is excluded because its unified state funded and operated system makes it non-comparable with the other states.

Source: Bureau of the Census, *Finances of Public Schools*, Vol. 4 of Census of Governments, various years.

were rationally related to the legitimate state interest of local control of school finances. Effectively precluding the U.S. Constitution as a basis for relief, this decision shifted the venue for these actions to the state courts.

Two important cases in the early 1970's were crucial in the reform movement as it has played out in the state courts and serve as examples of the legal strategies employed. In the first case, *Serrano v. Priest*, the plaintiffs focused on equity concerns and argued that gross disparities in revenues among districts violated equal protection guarantees in California's constitution. The court found for the plaintiffs in a ruling that provided the basis for subsequent equal protection challenges.

The second case, *Robinson v. Cahill*, was argued on the basis of the education article in the New Jersey constitution which requires that education be provided in a "thorough and efficient" manner. In finding for the plaintiffs, the court opened the door for other cases based on scrutiny of state constitutional language giving legislatures the responsibility to provide a public education and using such key words as 'adequate', 'ample', and 'efficient'.

These state cases have had mixed results. As may be seen in Table 4, of the 25 states in which cases have been decided since 1971, only 12 were compelled to reform by the courts. And frequently

TABLE 4  
SCHOOL FINANCE LITIGATION

State	Case	Year	Basis <sup>†</sup>
Financing Systems Upheld:			
Arizona	Shoftsall v. Hollins	1973	1,2
California	Serrano v. Priest (Serrano III)	1986	1
Colorado	Lujan v. State Board of Education	1982	1,2
Connecticut	Horton v. Meskill (Horton III)	1985	1,2
Georgia	McDaniel v. Thomas	1981	1,2
Idaho	Thompson v. Engleking	1975	1,2
Illinois	People v. Adams	1976	1,2
Maryland	Hornbeck v. Somerset Co. Board of Education	1983	1,2
Michigan	Milliken v. Green	1973	1,2
New Jersey	Robinson v. Cahill (Robinson V)	1976	2
New York	Board of Education, Levittown v. Nyquist	1982	1,2
Ohio	Board of Education v. Walter	1979	1,2
Oklahoma	Fair School Finance Council v. State	1987	1,2
Oregon	Olsen v. State	1976	1,2
Pennsylvania	Danson v. Casey	1979	1,2
South Carolina	Richland County v. Campbell	1988	1,2
Wisconsin	Kukor v. Grover	1989	1,2
Financing Systems Overturned:			
Arkansas	Dupree v. Alma School Dist. No. 30	1983	1,2
California	Serrano v. Priest (Serrano I)	1971	1
California	Serrano v. Priest (Serrano II)	1976	1
Connecticut	Horton v. Meskill (Horton I)	1977	1,2
Connecticut	Horton v. Meskill (Horton II)	1982	1,2
Kansas	Knowles v. State Board of Education	1976	
Kentucky	Rose v. Council for Better Education	1989	2
Montana	Helena Elementary School Dist. 1 v. State	1990	2
New Jersey	Robinson v. Cahill (Robinson I)	1973	2
New Jersey	Abbott v. Burke	1990	2
Texas	Edgewood Independent School Dist. v. Kirby	1990	2
Washington	Seattle School Dist. No. 1 of King Co. v. State	1978	2
West Virginia	Pauley v. Kelly	1979	2
West Virginia	Pauley v. Bailey	1984	
Wisconsin	Buse v. Smith	1976	
Wyoming	Washakie Co. School Dist. No. 1 v. Herschler	1980	1,2

<sup>†</sup>1 indicates suit based on equal protection clause; 2 indicates suite based on 'thorough and efficient' or similar constitutional language.

Sources: The data were compiled from various sources, including Camp and Thompson (1988) *passim*; Webb et al., (1988), pp. 253–254; and LaMorte (1990), pp. 377–380.

we see that a decision by the courts does not resolve the matter. In New Jersey, for example, there have been three major rulings by the state supreme court, first invalidating the system in 1973, then ruling that the new system was constitutional (albeit with some reservations) in 1976, and finally ruling again that the system was unconstitutional in June, 1990. In addition to those noted here, cases are currently being tried or prepared for trial in another eight to twelve states.<sup>8</sup>

Many states that have reformed their financing systems have done so as a direct consequence of a court ruling. However, some state legislatures have enacted reforms to preempt litigation or adverse rulings. The data in Table 5 lists the states that have undertaken major reforms as a consequence of court rulings and otherwise.<sup>9</sup> We see that of the 23 states enacting reforms, eight were in response to an adverse court ruling, eleven were preemptive, in that there have been no court decisions in those states so far, and three precluded adverse rulings in subsequent decisions.

### III. EFFECTS OF REFORMS AND COURT RULINGS

A question of interest is whether court rulings and reforms are systematically associated with an increasing share of state assistance and a reduced reliance on the property tax. There have been numerous

TABLE 5  
CHANGES IN AND CHALLENGES TO SCHOOL FINANCING SYSTEMS

	Reforms Initiated	System Invalidated	Court Rulings System Upheld
Arizona			1973
Arkansas	1983	1983	
California	1978	1971,1976	1986
Colorado	1973		1982
Connecticut	1978	1977,1982	1985
Florida	1973		
Georgia	1985		1981
Idaho			1975
Illinois			1976
Iowa	1972,1988		
Kansas	1973	1976	
Kentucky	1989	1989	
Maryland			1983
Michigan			1973
Minnesota	1973		
Missouri	1978		
Montana		1990	
New Hampshire	1985		
New Jersey	1976,1991	1973,1990	1976
New Mexico	1978		
New York			1982
Ohio			1979
Oklahoma	1987		1987
Oregon			1976
Pennsylvania			1979
South Carolina	1978		1988
South Dakota	1986		
Texas	1984,1991	1990	
Utah	mid 1970's		
Vermont	early 1980's		
Virginia	1975		
Washington	1978	1978	
West Virginia		1979,1984	
Wisconsin		1976	1989
Wyoming	1980	1980	

Source: Unpublished information from the Education Commission of the States, Camp and Thompson (1988); Webb et al. (1988), and LaMorte (1990).

studies of the effect on inter-district equity, measured in a variety of ways. These studies have found that the changes in equity have been small. For example, Carroll and Park (1983) studied five states and found that only in New Mexico, which adopted essentially a state-run school system, was there any significant changes in inter-district equity. However, we have found no study of the effect of the court rulings or reform of the education financing system measures on the state share or property tax share. There is no theory to suggest that an adverse court ruling or a reform should necessarily have an effect, either positive or negative, on state share or property tax share. However, we do expect that an adverse court ruling or a reform of the education financing system to increase the state share and decrease the share accounted for by the property tax.

To investigate this issue, we estimate the following equation.

$$S_{st} = \alpha_0 + \alpha_1 \cdot \text{TIME}_{t-1} + \alpha_2 \cdot \text{DUMMY}_{st} + \sum_{s=1}^{49} \alpha_{3s} \cdot \text{STATE}_s + \epsilon_{st} \quad (1)$$

The dependent variable,  $S$ , refers alternatively to the state share of non-federal revenue for elementary and secondary public education and to the property tax share of state and local government

revenue for elementary and secondary public education. We assume state share, or property tax share, varies by state and over time, and thus we include a time trend, TIME, and 49 state dummy variables, STATE. (It is necessary to drop one of the 50 state dummy variables to avoid singularity.) The variable DUMMY takes on a value of one for those states and time periods after an adverse court ruling or a reform. (Note that only one type of event is included in each regression.) Separate regressions are run using the adverse court ruling and the reform dummy variables. The specification test only that an adverse court ruling, or a reform of the educational financing system, will result in a one-time increase in state share or decrease in property tax share.<sup>10</sup>

The regressions were estimated using ordinary least squares with pooled cross-section, time-series data for five time periods and 50 states. The results are presented in Table 6, with the first panel using the reform dummy and the second panel using the adverse court ruling dummy. The 49 coefficients on the state dummies are not reported.

The signs of the coefficients are as expected. The coefficients on TIME are about 0.018 for the state share equation and 0.020 for the property tax share, and all are statistically significant. These coefficients suggest that the state share of state and local financing of public education has increased, on average, about 1.8 percentage points every five years, while the property tax share has decreased about 2.0 percentage points every five years. The difference in the two coefficients is accounted for by the increased use of non-property tax revenues at the local level.

The coefficients on DUMMY have the expected positive signs in the state share equations and negative signs in the property tax share equations, and are statistically significant. The coefficients on DUMMY are larger for the court ruling equations than for the reform equations. This result implies that adverse court rulings, which, with the exception of West Virginia and Kansas have all resulted in reform, have had a larger impact on state share and property tax share than reforms that were adopted voluntarily. As noted above, the magnitude of the coefficients on the court dummy is about three times the value of the coefficients on TIME, suggesting that the ruling increased state share, or decreased property tax share by the amount that "normally" would be experienced over a 15 year period. Thus, the effect of reform, particularly court-prompted reform, has had a substantial effect on both state shares and property tax shares.

The possibility exists that adverse court rulings and reform of educational financing is more likely to occur in states with low state shares. These states, as opposed to states with high state shares, could therefore experience larger increases in the state share. This, in turn, would overstate the effects of the court and reform dummies on state share.

To explore this issue, we compared the mean state share and the mean property tax share of those states that either experienced an adverse court decision or initiated a reform to those states that did not. Using the state share or property tax share for the period in our data set prior to the court action or reform, we generally found that there were not statistically significant differences in the means between states that did and did not experience an adverse court ruling or initiate a reform.

To explore this issue a little further, we ran four additional regressions in which we used the change in state share or the change in the property tax share as the dependent variables. We regressed each of these two variables against the time trend variable, the state share or property tax share, and the two alternative dummy variables, i.e., the court dummy and the reform dummy. The results are presented in Table 7.

In all of the regressions reported in Table 7, the coefficient on the dummy variable is significant and has the expected sign. Furthermore, the size of the coefficients are consistent with the coefficients

TABLE 6  
REGRESSION RESULTS, USING STATE SHARE AND PROPERTY TAX SHARE  
(t-statistics in parentheses)

Independent Variable	Time	Reform Dummy	Court Dummy	R <sup>2</sup>
State Share	0.018 (5.22)	0.004 (2.79)		0.896
Property Tax Share	-0.020 (-5.84)	-0.046 (-3.00)		0.900
State Share	0.200 (6.47)		0.058 (2.75)	0.896
Property Tax Share	-0.022 (-7.12)		-0.069 (-3.34)	0.900

TABLE 7  
REGRESSION RESULTS, USING CHANGES IN STATE SHARE AND PROPERTY TAX SHARE  
(t-statistics in parentheses)

Independent Variable	Time	Reform Dummy	Court Dummy	State Share	Property Tax Share	R <sup>2</sup>
Change in State Share	-0.003		0.040			0.060
	(-0.68)		(2.73)	0.065	(2.23)	
Change in State Share	-0.005	0.028				0.052
	(-1.03)	(2.41)		0.061	(2.09)	
Change in Property Tax Share	0.007		-0.040			0.058
	(1.57)		(-2.62)		0.069	
Change in Property Tax Share	0.009	0.030				0.054
	(1.91)	(-2.48)			0.066	
					(2.16)	

\*We wish to thank Will Myers, Mary Fulton, Paul Montello, Ferdinand Schoettle and David Green for their advice and assistance.

reported in Table 6. The results show that after controlling for state share or property tax share, the change in state share or property tax share is affected by an adverse court ruling or reform.

#### IV. CONCLUSIONS

Educational finance, and by implication, the use of the property tax to finance elementary-secondary public education, is an issue on which state courts have taken an increasing strong stand. Recent court decisions in New Jersey, Texas, Montana and Kentucky, as well as the current number of lawsuits being tried or prepared for trial suggest that many states will be forced to confront how education is financed.

Our empirical analysis suggests that a result of adverse court rulings and the reform of state financing systems is an increase in the state share of educational financing and a decreased reliance on the use of the property tax for that purpose. These results and the conclusion that the courts will force, either directly or indirectly, additional reforms of state educational financing systems imply that we should observe significant increases in the state share and decreases in the property tax share.

#### ENDNOTES

<sup>1</sup>Kentucky, Montana, Texas and New Jersey.

<sup>2</sup>Walker (1984), p. 266.

<sup>3</sup>Walker (1984), pp. 282-284.

<sup>4</sup>Except where identified elsewhere, all data used in this paper come from the *Finances of Public Schools* series, published by the governments division of the Bureau of the Census. We regard this as more reliable for our purposes than the *Government Finances* series, because it reflects later revisions. To arrive at the figures reported here, two imputations were made. First, as property tax revenues were not reported by state in 1982 and 1987, we calculate the average property tax share of total tax revenues using a sample of district-level data, and apply that to the reported state total for those years. Second, in fifteen states, some portion of the school districts are dependent, i.e., branches of a local government. In these dependent districts, no tax revenues are reported as the tax revenues are distributed by the parent government. Using the state-wide property tax share of local revenues, we impute that share of parent government contributions to the property tax.

<sup>5</sup>These data are collected from surveys of local school districts and employ a different methodology than does the Bureau of Census; see Gold (1984) for a discussion of the differences.

<sup>6</sup>By an adverse court ruling, we mean that the court invalidated the extant school financing system.

<sup>7</sup>Guthrie (1980, pp. 7-8); for further discussion of the motivation and strategies of school finance litigation, see Camp and Thompson (1988).

<sup>8</sup>Suro (1990).

<sup>9</sup>The dates of school financing reforms were provided to the authors by the Education Commission

of the States. It is a matter of judgement what changes should be called "a major reform," and dating the reform is problematic since many legislative packages that are phased in over a number of years.

<sup>10</sup>We also ran the regressions including an interaction term of TIME with DUMMY. This specification allows for the possibility that an adverse court ruling or reform would change the time trend. The coefficients on the dummy variables, when an interaction term is included, are generally insignificant.

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