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*This article offers an empirical examination of the variation in state funding responsibility for K-12 education, considering its impact on equity and innovation in the public school system.*

# Rethinking the Fiscal Role of the States in Public Education

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With federal funds accounting for only 7 percent of public elementary and secondary education revenue, funding responsibility for K-12 education is split between state and local governments. Since the 1980s, state governments have generally assumed primary fiscal responsibility, with local governments supplying the rest of the necessary revenue.<sup>1</sup> There is, however, noticeable variation in the level of funding responsibility across the 50 states. This article examines the variation in state funding responsibility for K-12 education, considering the impact of this variation on equity and innovation in the public school system.

“State funding responsibility” can be defined as the percentage of annual K-12 education revenue provided by the state. This percentage is determined using data from the U.S. Department of Education’s National Center for Education Statistics (NCES), which makes available the annual amount of each state’s revenue that comes from state, local, federal, and other sources. From a policy perspective, state funding responsibility can be understood as an important component of the political and power dynamics that shape the formation of education policy. Put simply, the larger a state’s share in the K-12 education pie, the more influence that state will have each year in determining how that pie will be divided (equity) and what ingredients will be used (innovation).

Equity and innovation have emerged over the past decade as two of the most important education issues to be considered at the state level. As such, varying levels of state funding responsibility may significantly affect the formation of equity and innovation policies. Improving equity—in the form of per-pupil expenditures and comparable distribution of resources across school districts in the state—is a goal that may require a greater degree of central direction, namely, when state government provides a greater percentage of education revenue.<sup>2</sup>

With more control over revenue, a state would have greater capacity to “redistribute” funds from wealthier districts to their less affluent counterparts. If the funds were generated primarily from local governments, this task might not be as feasible. While greater state funding responsibility can promote resource equity, it might also make innovation more difficult. With greater state direction on the use of funding, individual districts might have little discretion to innovate. Further, states may be hesitant to fund educational experiments in one district, fearing that other districts also may demand the same level of resources.

Based on a database of school finance, reform initiatives, and institutional characteristics across all 50 states during the 1990s, the authors examine equity and innovation policies to see if there is empirical evidence linking these school reforms to state funding

responsibility. Specifically, two guiding questions are used: 1) What is the relationship between state funding responsibility and disparity, as measured by a set of five different inequity indicators? and 2) How does state funding responsibility affect a state’s willingness to adopt innovative policies such as standards and accountability measures, charter schools, and school district takeover? Regression analysis is used to address each of these questions.

## Background and Policy Context

### *Variations in State Funding Responsibility*

States have maintained relatively constant levels of funding responsibility over the past decade. The average percentage of elementary and secondary revenue provided by states is approximately 49 percent, but there is much variation to be noted. In Exhibit 1, the 50 states are assigned into five groups, according to the level of funding responsibility. These groups are labeled “high, mid-to-high, mid, low-to-mid, and low” responsibility states. At the extremes are Hawaii, where almost 90 percent of elementary and secondary school revenue is provided by the state, and New Hampshire, where less than 10 percent of revenue came from the state during the 1990s.<sup>3</sup> The 10 states with the highest funding responsibility, on the average, account for nearly two-thirds of annual education revenue, while states with low funding responsibility supply only one-third of the state’s education budget.

### *Measuring the Funding Gap in Education*

Over the past 25 years, states have worked hard to create a more equitable distribution of educational resources within the states. School finance equalization is a policy that has had a significant impact on schools and districts in every state.<sup>4</sup> Despite these efforts to reduce inequality, there are still significant disparities within and across states.<sup>5</sup> There are many different methods available to define and measure “equity.”

One set of measures focuses broadly on intra-state inequity, or inequity between different districts in a given state. Some intra-state measures focus on the gap between the richest and poorest districts, while others look at the level of variation amongst the districts. A second set of measures focuses on inter-state inequity, or differences between states. These measures compare levels of educational resources offered by different states. Intra- and inter-state measures of inequity must both account for variations in costs and purchasing power.<sup>6</sup> For instance, equity measures that might compare New York and Alabama must make adjustments to reflect the significant differences in the cost of living in these two states.

**Exhibit 1**

**STATE FUNDING RESPONSIBILITY OVER TIME, AS MEASURED BY PERCENTAGE  
OF PUBLIC ELEMENTARY AND SECONDARY SCHOOL REVENUES  
PROVIDED BY THE STATE, 1992-1998\***

State	Average	1992	1994	1995	1996	1997	1998
<b>All states</b>	48.7	47.7	47.8	48.6	49.4	49.6	49.5
<b>“High responsibility” states (States 1-10)</b>							
Hawaii	89.8	90.3	90.0	90.2	89.8	89.5	89.0
New Mexico	73.5	73.8	73.6	74.4	73.9	73.1	72.2
Washington	68.5	71.6	69.7	68.7	68.0	67.1	66.0
Alaska	65.7	68.0	67.1	67.5	66.1	63.4	62.2
Delaware	65.1	65.9	64.4	64.3	66.6	64.8	64.4
North Carolina	65.0	63.6	64.0	65.1	64.5	65.4	67.3
Kentucky	64.8	67.0	65.9	65.8	65.3	62.9	61.7
West Virginia	64.0	67.1	64.6	63.6	63.0	63.0	62.7
Idaho	62.3	61.8	60.4	61.2	64.3	63.5	62.7
Alabama	61.0	58.8	59.3	61.0	61.3	63.2	62.5
<b>“Mid to high responsibility” states (States 11-20)</b>							
Oklahoma	60.6	62.2	58.8	59.4	59.3	62.3	61.6
Arkansas	58.9	59.9	57.8	58.2	60.0	60.1	57.7
California	58.7	65.9	56.2	54.2	55.8	60.0	60.2
Utah	58.2	57.2	54.9	54.3	58.6	62.8	61.0
Mississippi	55.5	53.5	54.5	56.4	57.8	55.5	55.4
Kansas	54.8	42.4	57.8	57.4	57.3	56.2	57.9
Minnesota	54.1	51.6	55.1	52.4	58.2	55.0	52.3
Michigan	53.5	26.6	28.7	67.3	66.8	65.5	66.0
Indiana	52.4	52.9	52.3	53.3	54.3	50.5	51.4
Louisiana	51.8	54.8	53.0	52.1	50.3	50.3	50.4
<b>“Mid responsibility” states (States 21-30)</b>							
Georgia	51.0	47.7	50.7	50.7	51.9	53.7	51.2
South Carolina	49.6	48.3	46.2	46.3	52.9	52.5	51.5
Wyoming	49.5	50.0	52.2	48.0	51.3	48.5	47.0
Iowa	49.3	47.3	48.2	47.9	49.0	52.0	51.3
Florida	48.9	48.4	49.8	49.1	48.6	48.8	48.8
Maine	47.6	49.8	48.3	47.9	47.0	47.2	45.5
Montana	47.6	41.8	51.4	49.6	48.6	47.4	46.9
Tennessee	46.8	42.2	46.8	47.5	47.9	48.5	47.7
Oregon	46.6	30.6	39.5	46.2	54.1	52.6	56.8
Wisconsin	44.8	39.4	38.7	41.1	42.9	53.1	53.7
<b>“Low to mid responsibility” states (States 31-40)</b>							
Arizona	43.6	42.4	41.5	44.0	44.1	45.0	44.3
Colorado	43.4	42.8	43.5	42.9	43.8	44.1	43.4
North Dakota	42.4	44.8	42.8	42.1	42.1	41.4	41.1
Texas	41.9	43.4	40.2	40.2	42.9	40.3	44.2
Ohio	40.7	40.8	40.8	40.0	40.7	40.7	41.2
Rhode Island	40.1	38.5	39.0	41.0	41.5	40.6	40.1
Pennsylvania	39.9	41.4	40.3	40.1	39.8	39.1	38.7
New York	39.7	40.3	38.2	40.7	39.7	39.4	39.7
New Jersey	39.6	42.2	40.4	38.0	38.6	38.7	39.8
Missouri	39.2	38.0	38.3	38.7	40.2	40.3	39.7
<b>“Low responsibility” states (States 41-50)</b>							
Connecticut	38.8	40.7	40.3	39.5	38.0	37.1	37.3
Maryland	38.4	38.2	38.9	37.0	38.2	38.8	39.0
Massachusetts	36.7	30.7	34.1	36.3	38.3	39.9	40.7
Nevada	32.9	38.7	32.8	30.1	32.0	31.9	31.8
Nebraska	32.7	34.3	32.7	32.4	31.6	32.1	33.1
Virginia	31.4	31.1	30.8	31.8	31.1	32.5	31.4
South Dakota	30.1	27.0	26.1	26.5	29.7	35.5	35.6
Vermont	29.8	31.6	31.3	29.8	27.8	28.6	29.4
Illinois	28.0	28.9	28.2	28.0	27.3	27.0	28.4
New Hampshire	7.9	8.5	8.2	7.3	7.0	7.4	9.3

Source: U.S. Department of Education, National Center for Education Statistics, Common Core of Data.  
\*The files from 1993 are currently under review by the NCES so statistics are not reported for that year.

**The Drive for State-led Education Innovation**

State-led educational initiatives have gained prominence across the nation in recent years. Almost all 50 states have now developed accountability frameworks for student achievement, emphasizing standardized tests and grade-level benchmarks. In addition, a growing number of states are passing legislation that allows for more controversial measures such as public school vouchers, charter schools, and provisions for state takeover of under-performing schools and districts.

Public school voucher programs have been implemented in five states and debated in many others. Thirty-seven states and the District of Columbia now have legislation allowing for charter schools, and more than 2,000 charter schools will be operating in Fall 2001. Twenty-four states allow state takeover of local school districts, permitting state officials to exert authority over a district in the case of “academic bankruptcy” or woefully low-performing schools. School district takeovers have occurred in 18 states and the District of Columbia.

Each of these emerging reforms is unique in that it generates a different magnitude of change to the existing public school system. Four reforms are considered—accountability, charter schools, vouchers, and school district takeover—because they represent a broad spectrum of reform options. There are also variations within each reform. For instance, accountability frameworks do not look the same and all charter school laws are not equal. Given that states have adopted diverse kinds of innovation, this article addresses the question, “Is adoption of these four education innovations related to the level of state funding responsibility?” In other words, does central direction temper policy innovation?

**Methodology**

Ordinary least squares (OLS) and logit regression analysis are used to examine the relationship between state funding responsibility, equity, and innovation. In all of the regression analyses, the independent variable of interest is  $FUNDING_i$ , *funding responsibility for each state i*. For analysis of equity, two time points are used (1992 and 1997), corresponding to the two time points at which the equity measures are calculated. For analysis of innovation, averages across the time period of 1992-1998 are used because these innovative reforms have developed over this time period. To better

**Exhibit 2**

**EQUITY MEASURES, GROUPED ACCORDING TO STATE LEVEL OF FUNDING RESPONSIBILITY**

	Coeff. of Variation EQUITY1		Restricted Range EQUITY2		Federal Range Ratio EQUITY3		McLoone Index EQUITY4		Per-pupil Expenditures <sup>a</sup> EQUITY5	
	1992	1997	1992	1997	1992	1997	1992	1997	1992	1997
All states	0.160	0.127	2,318	1,930	0.615	0.470	0.919	0.929	4,505	5,904
<b>By level of state funding responsibility</b>										
<b>High (1-10)</b>	0.130	0.119	1,696	1,811	0.433	0.422	0.948	0.935	4,183	5,718
<b>Mid-High (11-20)</b>	0.140	0.118	1,841	1,407	0.533	0.392	0.923	0.939	3,839	5,303
<b>Mid (21-30)</b>	0.162	0.118	2,294	1,679	0.620	0.422	0.922	0.934	4,690	5,946
<b>Low-Mid (31-40)</b>	0.175	0.132	2,632	2,175	0.699	0.505	0.916	0.927	4,799	6,315
<b>Low (41-50)</b>	0.188	0.148	3,064	2,565	0.772	0.606	0.891	0.911	5,013	6,240

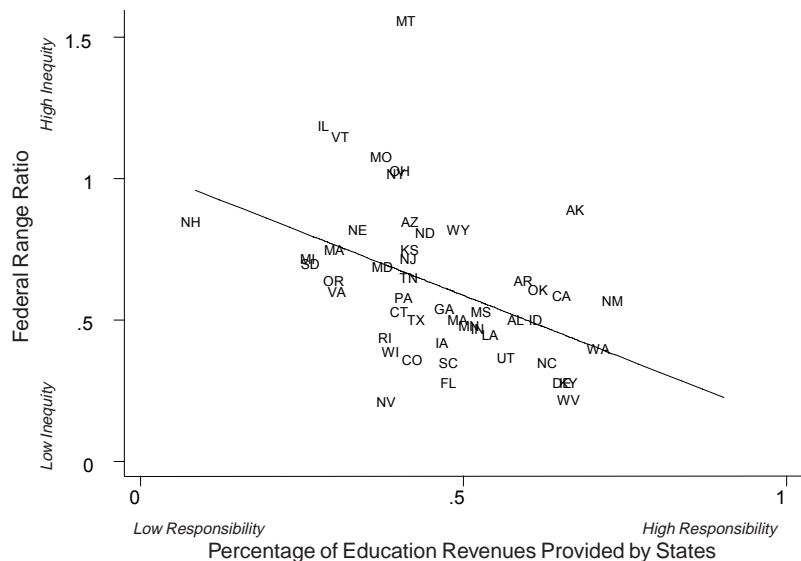
Note:<sup>a</sup>Both 1992 and 1997 measures of per-pupil expenditures are adjusted for geographical costs differences and are reported in 1997 dollars. Sources: U.S. Department of Education; National Center for Education Statistics; Education Week.

specify the effects of funding responsibility, a set of control variables was introduced to account for a number of other factors that might be significantly related to equity and innovation.

To measure equity, four measures of intra-state and one measure of inter-state inequity are used, measured once in 1992 and again in 1997.<sup>7</sup> Using a recent U.S. Department of Education report on inequity and an *Education Week* special report, the four intra-state measures are defined as dependent variables for each state *i*. EQUITY1<sub>*i*</sub> = *Coefficient of variation*, the standard deviation of per-pupil expenditures (PPE) across districts in a state, divided by the mean. A value of 0 means there is perfect equity. EQUITY2<sub>*i*</sub> = *Restricted range*, the difference between the revenues of the 5th percentile district and the 95th percentile district. This is a simple measure of the gap between a state's rich and poor districts. EQUITY3<sub>*i*</sub> = *Federal range ratio*, the restricted range ratio (EQUITY2) divided by the level of funding provided by the district at the 5th percentile. This is another measure that highlights the difference between rich and poor districts. EQUITY4<sub>*i*</sub> = *McLoone index*, looks at the total revenues for all students below the median and calculates the amount of revenue required to provide those low-revenue students with median revenue. If this value is 1, then there is no inequity in the distribution of revenue. The inter-state equity variable is defined as: EQUITY5<sub>*i*</sub> = *Average PPE*, adjusted according to the NCES Geographic Cost of Education Index, 1998.

**Exhibit 3**

**GRAPH OF EDUCATION RESOURCE INEQUITY VS. STATE FUNDING RESPONSIBILITY 1992**



Notes: Hawaii is not included in this graph, as there is only one Hawaii school district. The additional 49 states are plotted using their two-letter abbreviations. To plot a "best-fit" line, predicted values were used from a simple two-variable regression of inequity on state funding responsibility.

To measure innovation, the following measures were used as dependent variables. **STANDARD<sub>i</sub>**, a measure of the quality of the standards and accountability programs a state has implemented, as reflected in *Education Week's* overall grade for standards and accountability.<sup>8</sup> **CHARTER<sub>i</sub>** = charter school density, the percentage of a state's schools that are charter schools. This was calculated for the year 1999.<sup>9</sup> **TAKEOVER<sub>i</sub>** = a dichotomous variable taking the value 1 if the state has implemented school district takeover, and 0 if it has not. **VOUCHER<sub>i</sub>** = a dichotomous variable taking the value 1 if the state has implemented a publicly funded voucher program, and 0 if it has not.

Finally, six control variables were added to account for state demographics (partisanship, size, wealth) and student characteristics (standardized achievement levels, high school completion rate, and percentage of minority students). **DEMOCRAT<sub>i</sub>** = the Ranney party control index, averaged for the time period 1992-98. This index measures the strength of the Democratic party in a state.<sup>10</sup> **POPULATION<sub>i</sub>** = the log (base 10) of each state's population, averaged for the period 1992-98. **INCOME<sub>i</sub>** = the log (base 10) of median family income in each state, averaged for the period 1992-98. **ACHIEVE<sub>i</sub>** = a measure of achievement on the Scholastic Aptitude Test (SAT) for the period 1992-98. This measure calculates the ratio of a state's mean score to the national average. **COMPLETE<sub>i</sub>** = high school completion rate for each state, averaged for the period 1992-98. **MINORITY<sub>i</sub>** = the percentage of minority (i.e., non-white) students enrolled in elementary and secondary schools in each state, averaged for the period 1992-98. Using this set of variables, the following models were constructed:

$$DEPENDENT\ VARIABLE_i = b_0 + b_1FUNDING_i \quad (1)$$

$$+ b_2DEMOCRAT_i + b_3POPULATION_i$$

$$+ b_4INCOME_i + b_5ACHIEVE_i$$

$$+ b_6COMPLETE_i + b_7MINORITY_i + e_i$$

The following dependent variables were substituted into equation 1 and tested using OLS regression techniques: EQUITY1, EQUITY2, EQUITY3, EQUITY4, EQUITY5, STANDARD, and CHARTER. Since the other two dependent variables, TAKEOVER

and VOUCHERS are dichotomous variables, logit analysis was used in those cases.  $e_i$  represents the error term.

## Results

### State Funding Reduces Inequity

As expected, there is an inverse relationship between state funding responsibility and inequity. The greater the percentage of K-12 revenue provided by the state, the lesser the amount of inequity in that state (Exhibit 2). For instance, the difference in revenues between the rich (95th percentile) and poor (5th percentile) districts is around \$1,800 for the high responsibility states, but over \$2,500 for the low responsibility states. This relationship can be seen clearly in a graph of inequity vs. funding responsibility, with a best-fit line plotted for emphasis (Exhibit 3). Using the federal range ratio to measure inequity, it can be seen that the greater the percentage of education revenue provided by the state (i.e. the farther right one looks on the graph) the smaller the level of inequity.

When the control variables are put into place, several significant relationships remain between state funding responsibility and equity.<sup>11</sup> Using the set of 1992 equity measures, increased levels of state funding are related to lower levels of inequality (Exhibit 4). State funding is significantly related to 1992 measures of the coefficient of variation, restricted range, federal range ratio, and McLoone index. In 1997, the federal range ratio and McLoone index remain significant. These regression results provide evidence for the claim that increased levels of state funding responsibility are positively related to reductions in educational inequality.

### State Funding Not Impeding Innovation

While state funding responsibility is clearly related to equity, its relationship with innovation is not as straightforward. Neither the states that have implemented strong standards and accountability measures nor those that have used school district takeover differ significantly in their level of funding responsibility. In other words, it does not appear that state funding responsibility prevents

accountability and takeover.

In the case of charter schools, states with the highest charter school density have slightly higher than average funding responsibility. The five states that have introduced public school vouchers have slightly lower than average funding responsibility (i.e., 42.4 percent versus 48.7 percent). These casual observations do not hold up, however, when the control variables are added and regression analysis is performed. For each of the four innovation measures, the coefficient for state funding responsibility was not statistically significant (Exhibit 5). The lack of significant relationships between innovation and state funding responsibility provides evidence to reject the hypothesis that when states control a greater percentage of revenue, innovative policies will be less frequently introduced.

In addition to these findings,

## Exhibit 4

### OLS ESTIMATED EFFECTS OF STATE FUNDING RESPONSIBILITY ON RESOURCE EQUITY USING SELECTED EQUITY MEASURES, 1992 AND 1997

	Coefficient of Variation EQUITY1	Restricted Range EQUITY2	Federal Range Ratio EQUITY3	McLoone Index EQUITY4	Per-pupil expenditure <sup>a</sup> EQUITY5
<b>1992</b>					
Coeff.	-0.146	-2,919.1	-0.927	0.117	-1319.7
(Std. Dev.)	(.073)	(1,146.9)	(0.299)	(0.032)	(767.4)
Obs	49	49	49	49	50
Adj. R <sup>2</sup>	0.100	0.198	0.164	0.217	0.404
Mean, 1992	0.160	2,318	0.615	0.919	4,504.8
<b>1997</b>					
Coeff.	-0.053	1,472.2	-0.561	0.073	731.84
(Std. Dev.)	(0.049)	-(1,142.8)	(0.243)	(0.032)	-(876.56)
Obs	49	49	49	49	50
Adj. R <sup>2</sup>	0.142	0.212	0.156	0.097	0.265
Mean, 1997	0.127	1,930	0.470	0.929	5,904

Note: <sup>a</sup>Both 1992 and 1997 measures of per-pupil expenditures are adjusted for geographical costs differences and are reported in 1997 dollars. Coefficient estimates were made using the variables defined in Equation 1.

## Exhibit 5

### STATE FUNDING RESPONSIBILITY OVER TIME, AS MEASURED BY PERCENTAGE OF PUBLIC ELEMENTARY AND SECONDARY SCHOOL REVENUES PROVIDED BY THE STATE, GROUPED ACCORDING TO SELECTED INNOVATIVE CATEGORIES 1992-1998<sup>a</sup>

Group	N	Average	1992	1994	1995	1996	1997	1998
All states	50	48.7	47.7	47.8	48.6	49.4	49.6	49.5
States with strong standards/accountability <sup>a</sup>	11	49.3	44.8	45.8	50.3	51.7	51.5	51.8
States that have implemented school district takeover <sup>b</sup>	18	48.0	47.0	46.1	48.3	49.0	48.7	49.0
States with high charter school density <sup>c</sup>	10	54.3	51.4	50.9	54.8	55.7	56.5	56.3
Voucher states <sup>d</sup>	5	42.4	42.0	41.8	41.6	41.4	43.7	43.7

#### Notes:

<sup>a</sup> The 11 states with strong standards and accountability measures were determined using Education Week's overall grade for standards and accountability, as reported in *Quality Counts 2001*. The top 11 states were MD, NY, KY, NM, MA, SC, NC, MI, CO, VA, and OR.

<sup>b</sup> The states that have implemented school district takeover are AL, CA, CT, IL, KY, MA, MD, MI, MS, NJ, NM, NY, OH, PA, RI, SC, TX, and WV.

<sup>c</sup> High charter school density was defined as states in which charter schools are greater than 2.5 percent of the total number of public schools, as of Fall 1999. These high charter school density states are AZ, MI, CO, FL, NC, AK, MN, CA, DE, WI, and TX.

<sup>d</sup> States that have introduced public school voucher programs are WI, OH, FL, VT, and ME.

two of the control variables were also significant in several instances. The most interesting supplementary finding was an inverse relationship between charter school density (CHARTER) and Democratic party control (DEMOCRAT). The relationship was statistically significant, with coefficient =  $-.084$ , s.d. =  $.039$ , and level of significance  $p > .05$ . This finding offers further empirical support for the theory that charter school creation is a highly politicized process.<sup>12</sup> Additionally, state population was positively related to the quality of standards and accountability and to the implementation of school district takeover.<sup>13</sup>

## Conclusions and Policy Implications

This article has presented an empirical analysis of state funding responsibility, testing two key hypotheses: 1) higher levels of state funding leads to a more equitable distribution of education resources, and 2) higher levels of state funding may impede the introduction of educational innovations such as accountability measures, school district takeover, charter schools, and vouchers. This study finds that state fiscal responsibility has served a "redistributive" function. Higher levels of state funding are significantly related to a narrower gap between rich and poor districts, even when using a set of control variables. At the same time, this study fails to find a significant relationship between state funding and innovation. These findings have several implications for state-level education policy.

The direct relationship between state funding responsibility and equity confirms that state governments are the key actors in improving educational equality. Continued improvements in reducing inequity, therefore, will likely be most effective when states have greater control over K-12 revenue. With a greater share of the revenue pie, state governments are best equipped to redistribute those revenues to the districts where they are needed most. Just as important are our findings that innovation and state funding responsibility are not inversely related. Even states that control large shares of education revenue have been willing to adopt innovative policies such as accountability and charter schools. This is consistent with

other research on educational innovation that finds the process of policy innovation is affected by leadership and a host of other variables not captured in a measure such as state funding responsibility (Mintrom 2000).<sup>14</sup>

When these two sets of findings are considered together, the conclusion is encouraging in terms of managing the policy tension between equity and innovation. Our empirical analysis suggests that states do not have to achieve equity at the expense of innovation. Instead, states *can* address both equity and innovation. ■

#### NOTES

<sup>1</sup> Wong, K.K., *Funding Public Schools: Politics and Policy* (Lawrence: University Press of Kansas, 1999).

<sup>2</sup> Peterson, P.E., *City Limits* (Chicago: University of Chicago Press, 1981).

<sup>3</sup> Hawaii is a special case because it has only one school district. Hawaii is not included in the analysis of intra-state equity (i.e., between districts) due to this feature of its public education system.

<sup>4</sup> Hoxby, C.M., "All School Finance Equalizations are not Created Equal," *The Quarterly Journal of Economics* (Forthcoming).

<sup>5</sup> United States Department of Education, National Center for Education Statistics, *Inequalities in Public School District Revenues* (Washington, D.C.: United States Government Printing Office, 1998b).

<sup>6</sup> United States Department of Education, National Center for Education Statistics, *Geographic Variations in Public Schools' Costs* (Washington, D.C.: United States Government Printing Office, 1998a).

<sup>7</sup> Following from the assumption that it will be easier for states to re-allocate existing funds more equitably within their state than to significantly increase per-pupil expenditures in order to catch up to more prosperous states, it seems reasonable to look more closely at intra-state inequality measures.

<sup>8</sup> This measure considers a state's "adoption of standards (15%), clarity and specificity of standards (25%), quality of assessment (28%), participation in the 2000 NAEP test (2%), and accountability (30%). More details of these indicators and the grading methodology is available from the *Education Week Quality Counts 2001* home page at: <http://www.edweek.com/sreports/qc01/>.

<sup>9</sup> A measure of the "strength" of the charter school law was also explored as a dependent variable, but it was not significantly related to state funding levels.

<sup>10</sup> The Ranney index was calculated as described in Bibby and Holbrook (1999). As calculated, it is a proxy for the degree to which the Democratic party holds control of the governor's seat, the state House of Representatives, and the state Senate. The Ranney Index takes a value of 0-1, with 1 representing total Democratic control and 0 denoting complete Republican control.

<sup>11</sup> Two of these controls were also significant themselves. Using the 1997 measure of the restricted range (EQUITY2), greater levels of median family income (INCOME) were associated with higher ranges between rich and poor districts (coeff. = 6743.2, s.d. = 2780.2,  $p > .05$ ). Higher state income levels were also associated with greater per-pupil expenditures (EQUITY5) in 1992. In addition, for both 1992 and 1997, levels of per-pupil expenditures were related to lower levels of achievement on the SAT, but greater high school completion rates.

<sup>12</sup> Hassel, B.M., *The Charter School Challenge: Avoiding the Pitfalls, Fulfilling the Promise* (Washington, D.C.: Brookings Institution Press, 1999).

<sup>13</sup> State population (POPULATION) was related to STANDARD with coeff. = .094, s.d. = .047,  $p > .051$  and to TAKEOVER with coeff. = 2.718, s.d. = 1.224,  $p > .05$ .

<sup>14</sup> Mintrom, M., *Policy Entrepreneurs and School Choice*. (Washington, D.C.: Georgetown University Press, 2000).

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