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An Analysis of Fiscal Equity Provided by the JLARC System for Financing Public Schools: Commonwealth of Virginia 1987-88 to 1997-98

Richard Salmon and Deborah Verstegen

Introduction

At the request of the Virginia Education Association (VEA), a 1990 study of the Virginia System of Public School Finance, *Closing the Gap*,[1] contrasted the level of fiscal equity achieved by the Commonwealth for school year, 1988-89, with prior year, 1987-88. The purpose of the *Closing the Gap* study was to determine whether the highly publicized Joint Legislative Audit and Review Commission (JLARC) study, *Funding the Standards of Quality, Part II: SOQ Costs and Distribution*,[2] implemented fully in 1988-89, fulfilled its promise to fund more equitably public elementary and secondary education throughout the Commonwealth than was provided by the previous state finance system, i.e., 1987-88.

Unfortunately, the equity analysis conducted for the 1988-89 school year contrasted with the 1987-88 school year showed that rather than an improvement, the level of equity actually deteriorated. Verstegen and Salmon said,

> *...disparities in education support have increased in the Commonwealth of Virginia following enactment of the new state aid system for elementary and secondary schools, and the relationship between a locality's ability-to-pay for education and revenue for education was strengthened. Thus, the new financing scheme, formulated to provide greater equity in education support was unable to mitigate large and increasing disparities in revenue for education between more and less affluent localities and a strong and growing linkage between revenue and wealth, i.e., ability-to-pay for education. The increasing disparities in revenue for education and the growing linkage between revenue and wealth raise serious questions concerning the equality of educational opportunity afforded the nearly one million school children across the Commonwealth of Virginia. These data also suggest that the quality of education a youngster receives in Virginia is a function of the wealth of his parents and neighbors, rather than the wealth [of the] state as a whole.*[3]

Since a decade had passed following implementation of the new state aid distribution system, commonly referred to as the JLARC formula, the Virginia Education Association decided that an equity analysis applied to school year 1997-98 data and contrasted to the 1987-88 school year was both appropriate and necessary. The results of the VEA's call for this analysis is included herein. Three fundamental questions were addressed:

- Have inter-division disparities in per pupil revenue been reduced?
- Is post-legislation revenue (1997-98) more equally distributed among pupils than pre-legislation revenue (1987-88)?
- Has the relationship between a locality's fiscal capacity, i.e., ability-to-pay for education, and its respective per pupil revenue for education diminished?

Measures and techniques established by school finance researchers and the various state courts were utilized to assess equity.[4] Three principal research findings emerged from the study: (1) the gap in funding for education between more and less affluent school divisions in the Commonwealth of Virginia widened immediately from pre-legislation law (1987-88) following implementation of post-legislation law (1988-89). While there has been a modest increase in the level of equity since 1988-89, the level of equity has remained substantially unchanged since 1987-88. (2) While all deciles of pupils experienced slight gains in total state and local revenue, when compared to pre-legislation law, the highest fiscal capacity school divisions (100 decile) experienced a 16.6 percent growth in state and local revenues under the new finance system, while the lowest capacity divisions (0 decile) experienced a more modest growth rate of 6.7 percent.[5] (3) The statistical relationship between fiscal capacity and revenue per pupil, already strong, grew still stronger; for 1987-88 the conduct of a regression equation accounted for 65 percent of the variance and by 1997-98, 76 percent of the variance was explained.

Presentation of Analysis

Each of the three research questions posed above was addressed pursuant to accepted measures and statistics. For research questions 1 and 2, a decile array of per pupil revenue was prepared and nine univariate equity statistics applied to the data. Displayed in Table 1 is the decile array and displayed in Table 2 are the results of the application of the nine equity statistics.

Revenue deciles are computed by ranking per pupil state and local revenue from low to high and then specifying total revenue per pupil at ten percent intervals. As the shape of the per pupil revenue distribution becomes more level, equity increases. The decile array is presented in five (5) columns; the first column presents the ten deciles, each decile, other than the zero decile, contains approximately 10 percent of the pupils of the Commonwealth. Note, however, that Fairfax County/City, due to its extraordinary size, spans the eighty and ninety deciles. The second column presents for each decile the mean per pupil state and local revenues for 1987-88 in nominal dollars. In column three the 1987-88 dollars are adjusted to 1997-98 real dollars in order to account for the effects of inflation. Column four contains the mean per pupil state and local revenues for 1997-98

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presented in nominal dollars. Finally, presented in column five are percent changes that occurred for each decile from 1987-88 real dollars to 1997-98 nominal dollars. Except for the one-hundred decile, rather modest increases in per pupil state and local revenues were registered. However, primarily due to the heavy dependence on local resources, those school divisions characterized as high fiscal capacity and contained in the tenth decile recorded nearly a seventeen percent increase in real dollars from 1987-88 to 1997-98.

As mentioned earlier, Table 2 contains the results of the application of nine equity statistics to the data for school years 1987-88 and 1997-88. Each statistic is explained and the results presented below:

1. The Range- The range in revenue is the difference between the highest and lowest revenue per pupil in the state. As the range decreases, equity increases.

The nominal range, unadjusted for the effects of inflation, increased

Table 1

A Comparison of Revenue Deciles Under Prior Law (1987-88) and Current Law (1997-98): Commonwealth of Virginia

	Prior Law		Current Law	% Change
Revenue Decile:	1987-88 (nominal)	1987-88[b] (real)	1997-98 (nominal)	1988-1998 (real)
0%	$2,654	$3,630	$3,873	6.7
10	2,804	3,835	4,191	9.3
20	3,044	4,164	4,384	5.3
30	3,122	4,270	4,554	6.4
40	3,326	4,549	4,606	1.3
50	3,386	4,631	4,970	7.3
60	3,614	4,943	5,101	3.2
70	3,968	5,427	5,590	3.0
80	4,246	5,808	– [a]	–
90	– [a]	– [a]	7,296	–
100%	6498	8,888	10,365	16.6

NOTE: Authors' calculations. Includes total state and local revenue minus transportation and special education categoricals. [a] Fairfax spanned this decile. [b] Adjusted for inflation; 1998=100%. Chain type indicator, Bureau of Economic Analysis; academic year index, July 1998-June 1999=FY 1999.

Table 2

A Comparison of Univariate Equity Statistics Under Prior Law (1987-88) and Current Law (1997-98): Commonwealth of Virginia

Measure	Prior Law: 1987-88[b]	Current Law: 1997-98
Range		
Nominal	$3,844	$6,492
Adjusted[a]	$5,258	$6,492
Range Ratio	2.45	2.68
Restricted Range		
Nominal	$2,283	$3,367
Adjusted[a]	$3,123	$3,367
Restricted Range Ratio	1.84	1.80
Federal Range Ratio	0.84	0.80
Coefficient of Variation	23.16	24.12
Gini Index	0.1242	0.1218
Theil Index	0.0252	0.0266
Verstegen Index	1.2978	1.2939
Atkinson Index		
I8	0.8895	0.8974
I10	0.8722	0.8824
McLoone Index	0.9099	0.9262

NOTE: [a]Author's Calculations. Adjusted for inflation. 1997-1998, July-June = 100%. Chain type indicator, Bureau of Economic Analysis; N=968,143 (1987-8), 1,100,007 (1997-98); [b]For 1987-88 see: Verstegen, D. A. (1996). *Concepts and Measures of Fiscal Inequality: A New Approach and Effects for Five States*, 22 (FALL 1996), 145-160.

from $3,844 per pupil for 1987-88 to $6,492 for 1997-98. When adjusted for inflation, the range increased from $5,258 per pupil for 1987-88 to $6,4926 for 1997-98. Both the nominal and unadjusted ranges increased, suggesting a decrease in the level of equity provided. The range ratios, i.e., ratio between the highest and lowest per pupil expenditure also increased from 1: 2.45 for 1987-88 to 1:2.68 for 1997-98.

2. The Restricted Range- The restricted range is the difference between the revenue per pupil at selected percentiles; for example, the difference in revenue per pupil at the 95th percentile and 5th percentile. As the restricted range decreases, equity increases.
The nominal restricted range, unadjusted for the effects of inflation, increased from $2,283 per pupil for 1987-88 to $3,367 for 1997-98. When adjusted for inflation, the restricted range increased from $3,123 per pupil for 1987-88 to $3,3677 for 1997-98. Both the nominal and unadjusted restricted ranges increased, again suggesting a decrease in the level of equity provided. The restricted range ratios remained relatively unchanged, decreasing from 1:1.84 to 1:1.80.

3. The Federal Range Ratio- The federal range ratio is the difference between the per pupil revenue at the 95th and the 5th percentiles, divided by the value at the 5th percentile. As the federal range ratio decreases, equity increases.
The federal range ratio declined modestly from .84 for 1987-88 to .80 for 1997-98, indicating a very small increase in the level of equity provided.

4. The Coefficient of Variation (CV)- The Coefficient of Variation is the standard deviation of a distribution divided by its mean, expressed as a percentage. The CV measures variability in a revenue distribution around the mean observation. As the CV decreases, equity increases.
The coefficient of variation8 increased from 23.14 for 1987-88 to 24.12 for 1997-98, indicating a significant deterioration of the level of equity provided.

5. The Gini Index- The Gini index indicates how far the distribution of revenue is from providing each proportion of pupils with equal proportions of revenue. This measures ranges from 0.0-1.0. As the Gini decreases, equity increases.
The Gini index decreased from 0.1252 for 1987-88 to 0.1218 for 1997-98, pointing to a very modest gain in the level of equity provided.

6. The Theil Index- The Theil index is an overall measure of variation in resource distribution across all observations. As the Theil index decreases, equity increases.
The Theil index increased slightly from 0.0252 for 1987-88 to 0.0266 for 1997-98, suggesting a modest decline in the level of equity provided.

7. The Verstegen Index- This index measures equity for the upper half of the revenue distribution only. It is expressed as the ratio of the actual revenue of all pupils above the median relative to the total revenue those pupils would receive if they were at the median per pupil revenue in the state. The Verstegen index ranges from 1.0 to over 2.0. As the Verstegen index decreases, equity for the upper half of the revenue distribution increases.
For 1987-88 the Verstegen index was 1.2978 and by 1997-98 had declined slightly to 1.2939, indicating that the Verstegen index remained virtually unchanged.

8. The Atkinson Index- The Atkinson index is based upon a function that converts a distribution of per pupil objects to a single number that measures the total welfare of the distribution. The welfare function simultaneously takes into account how much of the object each pupil receives and the level of equity among pupils. Larger values of the parameter I, as used herein, make the index more sensitive to pupils at the low end of the per pupil revenue distribution. The index ranges from 1.0 for perfect equity to 0.0 for absolute inequity. As the Atkinson index increases, equity also increases.
The Atkinson index set at I = 8, yielded 0.8885 for 1987-88 and 0.8974 for 1997-88, and when set at I = 10, yielded 0.8722 for 1987-88 and 0.8824 for 1997-98. Both calculations showed a modest improvement of the level of equity provided.

9. The McLoone Index- The McLoone index measures equity for the lower half of the revenue distribution only. It is expressed as a ratio of the actual revenue of all pupils below the median relative to the total revenue those pupils would receive if they were at the median per pupil revenue level in the state. The McLoone index ranges from 0.0 to 1.0. As the McLoone index increases, equity for the lower half of the distribution increases.
In contrast to the Verstegen index that measures the equity provided by the distribution of revenues above the state median per pupil expenditure, the McLoone index measures the level of equity provided for the lower half of the revenue distribution. The McLoone index increased from 0.9099 for 1987-88 to 0.9262 for 1997-98, suggesting a significant increase in the level of equity provided.

Contained in Table 3 are wealth neutrality statistics as applied to data for school years, 1987-88 and 1997-98. The purpose of these statistics is to determine how strong is the relationship between fiscal capacity and state and local revenues per pupil.

1. The Simple Correlation- It indicates the relationship between per pupil revenue and a locality's wealth, i.e., fiscal capacity. As the relationship between wealth and revenue decreases, equity increases as does fiscal neutrality.
The conduct of the Pearson Product Moment Coefficient of Correlation yielded a slightly higher positive relationship for the 1997-88 (0.87) than for the 1987-88 (0.81), indicating that the link between fiscal capacity as measured by the Local Composite Index, and the generation of revenue increased over the decade.

2. Regression- The percent of variation explained in per pupil total state and local revenue (the dependent variable) by local per pupil wealth, i.e., ability-to-pay (the independent variable). As the coefficient of determination decreases, equity increases, as does fiscal neutrality.
From 1987-88 to 1997-88, the percent of total state and local revenue per pupil explained by the fiscal capacity, as measured by the Local Composite Index, increased from 0.65 to 0.76, again indicating that the state and local revenues per pupil of the local school divisions were largely a function of their local ability-to-pay for educational services.
3. Slope- The slope indicates the magnitude of the relationship between a locality's per pupil ability-to-pay, i.e., wealth and revenue for education, in absolute terms. As the slope decreases, equity increases as does fiscal neutrality.
An index of fiscal capacity, such as the Local Composite Index, does not lend itself to the calculation for the slope of the equation.

4. Elasticity- Like slopes, elasticities specify the magnitude of the relationship between revenue and local ability-to-pay, i.e., wealth, but in terms of percentages rather than absolute units. The elasticity statistic is insensitive to equal percentage additions whereas the slope is not. As the slope decreases, equity increases as does fiscal neutrality.

An index of fiscal capacity, such as the Local Composite Index, does not lend itself to the calculation of an elasticity quotient.

Table 3

A Comparison of Wealth Neutrality Statistics Under Prior Law (1987-88) and Current Law (1997-88): Commonwealth of Virginia[a]

	Prior Law 1986-87	Current Law 1997-98
WEALTH[b]		
Correlation (r)	0.81	0.87
Regression (r2)	0.65	0.76
Slope[b]	n.a.	n.a.
Elasticity	n.a.	n.a.
F-Ratio	86.50	418.77
Probability	0.0001	0.0001

NOTE: [a]Includes total state and local revenue minus transportation and special education (SOQ & categoricals); [b]Local Composite Index (LCI) measures local ability-to-pay; slope and elasticity is not appropriately calculated using this index.

Summary

The distribution of state and local revenues per pupil as displayed by deciles did not show a particular pattern of change from 1987-88 to 1997-98 for all deciles, excluding the 100 decile. The change for the 100 decile was a substantial increase of nearly 17 percent This rather static condition prevailed despite the implementation of the JLARC funding system first introduced in 1988-89. The application of ten equity statistics also did not reveal a particular pattern of change. Several statistics showed modest deterioration of the level of equity currently being provided by the JLARC relative to the level of equity that was provided by the prior system of school finance. Other statistics showed modest improvement in the level of equity provided from 1987-88 to 1997-98. In regard to the application of wealth neutrality statistics, the relationship between fiscal capacity and the generation of state and local revenues per pupil actually became stronger over the decade. The application of similar statistics to the JLARC system of school finance immediately following its implementation in 1988-89 revealed substantial deterioration of equity. Some improvement in the level of equity has occurred since 1988-89, but has only roughly reached the level of equity provided by the previous system (1987-88). As measured by these statistics, the JLARC system of school finance has not proven successful in raising the level of equity provided throughout the Commonwealth. This finding is particularly alarming since Virginia commonly is recognized as one of several states that operates highly disparate systems of public schools. The one million plus pupils who attend public elementary and secondary schools in Virginia deserve better.

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Endnotes

1. Verstegen, Deborah A. and Richard Salmon, *Closing the Gap*. (Richmond, Virginia: Virginia Education Association, 1990). Due to the absence of uniform data available from the Virginia Department of Education for the 1987-88 and 1997-98 school years, the 1987-88 data were reformatted to conform to 1997-98 and the equity analysis for 1987-88 recalculated. As a result, the 1987-88 statistics arrayed in the original 1990 report do not match precisely the statistics displayed in this report.
2. Joint Legislative Audit and Review Commission, *Funding the Standards of Quality, Part II: SOQ Costs and Distribution*. (Richmond, Virginia: Commonwealth of Virginia).
3. Op cit., p. 21-22.
4. See References.
5. Adjusted for inflation.
6. Adjusted to 1997-98 dollars.
7. Adjusted to 1997-98 dollars.
8. Calculated as a percentage.

Quantifying Adequacy: A Hybrid Model

Barbara M. De Luca

Introduction

Recently, increasing attention has been given to the concept of adequacy in public K-12 education. In the past, the focus was primarily on equity; that is, making sure all children who are alike are treated alike, and those who are different are treated accordingly. If adequacy is defined as having the resources to teach all children to high standards,[1] then it follows that, even if perfect equity could be achieved, the education being provided to students may be inadequate. For example, an expenditure of $4000 per regular pupil with consistent adjustments for special circumstances might be considered equitable, but if it did not provide sufficient resources to teach children to high standards, it would not be adequate. So, while many states have been under pressure to meet statutory requirements regarding equity in public education, they are now also struggling with the relationship between equity and adequacy and how to reconcile any conflicts between the them.

The focus of the efforts of those dedicated to developing ideal methods for financing public education has changed over time. After most basic finance formulas were in place, equity became the focus of funding efforts, with Brown v. Board of Education of Topeka ushering in an era of equity in school finance.[2] A number of the early school finance cases following Brown focused on interdistrict funding inequities within a state.[3]

While equity continued to be the primary focus of legal cases up through 1980s, several plaintiffs turned to education clauses in state constitutions with language not only on equity but also on efficiency. These include: the 1979 Ohio case, *Board of Education v. Walter;*[4] the 1989 Texas case, *Edgewood Independent School District v. Kirby*;[5] the 1989 Kentucky case, *Rose v. Council for Better Education*;[6] and a second case in Ohio in 1997, *DeRolph v. State of Ohio*.[7] It was this use of the "state constitution education clause strategy that led to the actual term 'adequacy' and its definition in school finance litigation of the late 1980's and throughout the 1990s."[8] Both the 1989 Rose decision in Kentucky and the 1997 DeRolph decision in Ohio defined adequacy in terms of performance outcomes– in other words, outputs rather than inputs alone. Although this was a necessary step in the effort to provide an adequate education, it is not the final step. Work on adequacy cannot stop here.

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Problem Statement

Defining adequacy is difficult. For the purposes of this article, it will be defined on three levels. First, the term itself must be defined. In layperson's terms, adequacy may be defined as, "...sufficient; a sufficiency for a particular purpose,"[9] or "the quality of being able to meet a need satisfactorily."[10] However, these definitions differ substantially from one posited by Odden and Picus: "...The notion of adequacy is the provision of a set of strategies, programs, curriculum, and instruction and their full financing, that is sufficient to teach student to high standards."[11] The generic definitions would suggest a minimal level of achievement while the school finance definition advances a high level of student performance.

Second, once the term is defined, an instructional delivery system that will sustain the chosen level of adequacy must be identified, such as the curriculum and pupil-teacher and pupil support-staff ratios necessary to meet the designated standards at each grade level. Third, once the term is defined and the instructional delivery system specified, costs must be assigned to the components of the delivery system. The end product will be a dollar value per pupil necessary to provide an adequate education. Hence, the challenge of achieving adequacy is primarily definitional: 1) definition of the basic term, 2) definition of an instructional delivery system consistent with the characterization of the basic term; and 3) definition or quantification of the per pupil cost of the instructional delivery system.

Until all three steps are completed, there is insufficient direction for state general assemblies to design state funding programs to adequately allocate money to local school districts. If, in fact, the courts and the public are going to hold states more accountable for school funding formulas which provide for an adequate, as well as an equitable, education to all, it is imperative that we proceed beyond the initial definition stage and develop a method for quantifying adequacy as an input, rather than simply as an outcome. Although many efforts have been made toward this end, a model is still needed that is simple enough for the public to understand; flexible enough not only to implement but to adjust to changing standards; and accurate enough to reflect actual costs.

Purpose of the Paper

The purpose of this paper is to propose a method for quantifying adequacy. Data from the State of Ohio are used to illustrate the strategy employed. Presently, Ohio has completed the first definitional phase, that of defining adequacy in terms of performance criteria, and has a proposal for the second stage, defining an instructional delivery system. The goal of this study is to assign dollars values to the task of meeting performance outcomes using Ohio's legislatively defined standards and a proposed instructional delivery system. The method proposed herein for quantifying adequacy is a hybrid strategy in that it utilizes elements of two of the current approaches to allocate dollars in site-based model similar to that of the Seattle School District[12] and the "basket" of essential learning resources developed by the Ohio Coalition for Equity & Adequacy.[13]

Current Efforts to Quantify Adequacy

Currently, four approaches are employed to calculate the cost of an adequate education: one statistically based; a second empirically based; and a third based on professional judgment.[14] The fourth is called the Odden-Picus Adequacy Index, and is based upon the McLoone Index.[15]

The first approach draws conclusions based on the use of statistical analysis, primarily multiple regression. This approach, referred to as a cost function analysis, allows the researcher to control for the multitude of variations which exist in assigning costs to the components of education, such as the differences in students, e.g., developmentally disabled, limited English proficient, or differences in environmental settings, such as urban, rural, suburban. This method, however, has provided results that intuitively are indefensible. For example, Reschovsky and Imazeki developed an index for costing out an adequate education in Wisconsin that, based upon calibrating the average per pupil expenditure to 100, calculated the range of school districts' indices from 48.9, less than half the mean to 460, slightly more than four and one-half times the mean.[16, 17] In a similar study, using New York state data, Duncombe and Yinger concluded "that large central districts must spend two to three times as much as the average district to reach the same performance standard."[18] Obvious problems with this approach include the feasibility of a state funding districts within it boundaries at such different levels while maintaining the equity so long fought for in many states. Also, the accuracy of a method that results in such major discrepancies from district to district is questionable. Finally, this method is not designed to be understood by nonresearchers or statisticians.

A second approach to determining the cost of an adequate education involves drawing conclusion from data derived by empirical observation. This approach identifies school districts labeled as adequate with respect to performance criteria and accepts the expenditure level of such districts as adequate. The most recent attempt at assigning a cost out an adequate education in Ohio utilized this approach. This approach leaves much room for individual interpretation and subjective judgment on the part of the researchers calculating the dollars.

Augenblick has used this approach in Ohio in earlier efforts to quantify adequacy. He established a panel of experts who used observed data from Ohio school districts to develop a base expenditure per pupil necessary to provide an adequate education.[19] The panel's methods included: eliminating the expenditures "not directly related to basic instructional costs for a typical pupil";[20] excluding the lowest and the highest per pupil spending districts in the state; choosing the districts which met performance criteria identified by the panel itself; and "calculating the weighted average of the base spending" in the chosen districts.[21] The results were wrought with subjective decisions, greatly impacting the final dollar value.

Based on early review and subsequent criticism, the panel later revised its procedure.

Rather than defining "wealthy" school districts by level of expenditure per pupil, essentially the independent variable in the study, the panel redefined wealth as income and property value. Second, instead of using self-identified performance outcomes as an outcome definition of adequacy, the panel used state-designed standards. The use of state standards also addressed the criticism that the panel did not take into account various student characteristics when using proficiency test data for performance criteria. To address a fourth criticism, the panel reconsidered inclusion of noninstructional expenses based upon "both the reasonableness of [the district's] spending and the efficiency of their spending for expenditure subcategories, such as administration, operations, and pupil support" rather than eliminate them as unrelated to direct instruction of students.[22]

After addressing these criticisms, Augenblick determined that $3,930 per pupil was an adequate number of dollars to use as the base figure in a new foundation program "to provide an adequate education defined as meeting state proficiency test standards, with an annual inflation factors of approximately 2.8 percent for use in estimating over the next few years."[23] Then, using a series of regression models, an "excess cost" was determined for student characteristics that were known to have a significant impact on per pupil expenditures in a school district.[24] Weights were assigned for the following: three different groups of special education students; regional differences in the cost of-doing business; at-risk (low-income) students; and student transportation. These weights were used to identify a cost figure that was added to the base expenditure per pupil previously identified to determine the true cost for educating students to an adequate level. Special students found not to be significant in affecting per pupil expenditures, and therefore excluded from the study, were those enrolled in vocational courses and gifted programs.

The third approach to attaching a cost per pupil to an adequate education is described as employing professional judgment.[25] This strategy relies on professionals in a variety of specialty areas to participate in discussions regarding performance criteria in order to define adequacy, instructional delivery systems, and then the assignment of per pupil dollar values to an adequate education. Professional judgment can be used for one or all three of these tasks involved in defining adequacy. Chambers and Parrish used this design when studying the Illinois system in1992 and the Alaska system in1994.[26] However, they referred to it as the Resource Cost Model rather than the professional judgment model.[27]

Chambers and Parrish visited school buildings, examined classroom settings, conducted forums with educational and community leaders, and consulted with a variety of other professionals in order to identify the level of resources necessary to provide an "appropriate" education to all children. They gathered data by relying on their own professional expertise plus that of others and then employed statistical analysis to attach a cost to the educational inputs deemed necessary. Results of their work indicated the need for a two percent increase in funding to provide an appropriate education in Illinois and a 16 percent increase in Alaska. Ultimately, neither plan was implemented, because "policymakers tended to find the overall system somewhat incomprehensible and complex."[28]

In 1997, Guthrie and others, in an effort to ascertain the cost of an adequate education in Wyoming, utilized the professional judgment strategy by "consulting with a wide range of education experts in Wyoming and nationally, as well as reviewing all relevant research."[29] After gathering information, the researchers engaged in a series of rather simple mathematical calculations, using existing Wyoming teacher salary expenditures to arrive at a salary level for teacher compensation that they maintained would provide an adequate education. Several other costs, such as nonteaching staff compensation and instructional materials, were calculated using competitive market costs in Wyoming as much as possible or practical. By using data collected from professionals, either weights or specific dollar amounts were assigned to different student characteristics: gifted; limited English proficient; and at-risk. School and other environmental characteristics were also included in the study. To fully fund the resultant formula, with save harmless features to assure that no district would lose money due to the change, would have cost the

state $1.8 million. If school district losses in state aid were limited to five percent, the cost dropped to approximately $707,000."[30]

As can be seen from the above examples, the quantification of adequacy in terms of dollars has not been easy or particularly successful. Odden and Picus proposed yet a fourth approach called the Odden-Picus Adequacy Index.[31] Using the McLoone Index, originally designed to measure equity, they substituted a dollar value representing an "adequate" level of expenditure per pupil for McLoone's median per pupil expenditure, making it is possible to determine the percent of students in a state funded below an adequate level. By weighting expenditures according to differences in students, programs, and other factors, this method addresses adequacy as well as equity. However, the need to identify an "adequate" level of spending as a starting point is not addressed by their index.

Ohio's Efforts Toward Defining Adequacy

As a result of DeRolph, Ohio identified 27 standards to be met by every school district in the state, of which 26 must be met in order for a district to be identified as "effective."[32] Most of the standards address state proficiency test scores, but at least one looks at district graduation rate and another tracks student attendance rate. Districts meeting between 14 and 25 standards are classified as "continuous improvement" while districts that meet 9 through 13 standards are labeled "academic watch." If a district meets fewer than 9 standards, it becomes an "academic emergency." For districts at each classification below the "effective" rating, a variety of mandates is imposed in order to raise them to the "effective" level.

Collecting data in order to identify the instructional inputs necessary to meet the legislatively mandated performance standards is the next step facing Ohio in its efforts to quantify adequacy, with the 1997 calculations representing the most recent efforts at quantifying an instructional delivery system.[33] At that time, both the initial and revised calculated dollar values per pupil exceeded the revenue the state was willing or able to distribute to K-12 education. In 1999, the legislature agreed upon a foundation amount of $4,052 per pupil as the basic cost of an adequate education in Ohio for the 1999-2000 academic year, with an annual increase of 2.8 percent until 2003. In addition, adjustments to the foundation or basic cost were to be made for factors previously discussed, such as student characteristics. However, as a result of the machinations, the final dollar value had little relationship to the instructional inputs required to deliver an adequate education based on the Ohio performance standards.

Because of the snail's pace at which identification of instructional inputs was occurring in the Ohio General Assembly, the Ohio Coalition for Equity & Adequacy, representing more than 550 of Ohio's school districts, assumed the challenge.[34] Using the professional judgment approach, the Coalition convened a series town hall meetings across the state between September and October 1998 to gather input regarding the elements to be considered in a thorough and efficient system. The Coalition then sponsored an Education Congress consisting of approximately 800 people to refine the elements identified at the town meetings. In January 1999, several meetings were held "for translating the 'elements' derived by the Coalition's efforts into a "basket" of specific education resources."[35] At the same time, data were being collected from several other Ohio-based sources: an opinion poll conducted by the Ohio University Scripps School of Journalism; a survey completed by 2,492 elementary and secondary teachers; a survey administered to subject-oriented professional associations; a conference attended by 230 selected educators; and a review and analysis of all findings by national experts.[36] Using data collected as well as Ohio legislated requirements, the Coalition's final report, *Basket of Essential learning Resources for the 21st Century*, identified the elements and the level of the elements necessary for a "thorough and efficient" education.

Quantifying Adequacy: A Hybrid Model

The model proposed here defines adequacy in terms of inputs or dollars per pupil necessary to achieve the outcomes required for a school district to be termed "effective" by the Ohio performance standards. As such, this model combines components of the empirical observation model with those of the professional judgment model and applies to them to a site-based system used in the Seattle School District and to the Basket developed by the Ohio Coalition.[37] The overarching goal was to develop an algorithm for financing Ohio schools that is uncomplicated, comprehensible, and clear.

Method

Using the empirical observation method, the researcher selected the Ohio school districts that were declared effective by virtue of meeting 26 of 27 performance standards for the 1998-1999 academic year. Table 1 contains summary and descriptive information for these 30 school districts. The second step of the process involved the professional judgment approach. The Basket of Essential Learning Resources, developed through extensive use of professional judgment, was employed to determine the level of inputs necessary to meet 26 of the 27 performance standards mandated by the state. Appendix A contains the grid identifying the "basket".

Table 2 identifies the initial weights used in the Seattle School District for allocating dollars to school buildings during the earliest stage of their site-based budgeting plan. There is a basic education weight depending on the academic year of the student; five levels of weights for special education students; weights for bilingual students; and weights for students receiving free and reduced-price lunches. The last set of weights is based on test scores on the state achievement tests. Each student in grades one through three in a school where the test scores were in the 0-10th percentile was weighted an additional .05, and so forth. Later iterations of the weighting system removed weights for test scores.

The third step involved applying the weighting components of the Seattle site-based system to the statutory requirements (definition) for an adequate education in Ohio using the elements of the professional judgment model established by the Coalition. The results are depicted in Table 3. The Ohio weighting system contains a basic education weight depending on the academic year of the student; three levels of weights for special education students; weights for gifted students; and weights for students receiving free and reduced-price lunches. The last set of weights, based on test scores on the state achievement tests, was retained for intermediate, middle, and high school grades.

The final step in the analysis was first applying this weighting system to Ohio numbers and then to the "basket" of essential learning resources. The results are shown in Tables 4 and 5 respectively. The basic foundation amount of $3851 per pupil was used because that was the actual guaranteed amount per pupil in Ohio for the 1998-1999 academic year. The general formula is provided in the left-hand column and the application to an actual Ohio school district is presented on the right side of the table. Table

Table 1
Effective Ohio School Districts, 1998-1999: Descriptive and Summary Information

School District	Expenditure/ Pupil	1995 Average Income	Property Value/Pupil	Total ADM	Average Teacher Salary	Average Years Experience
Aurora City	$6,004	$64,102	$160,037	1,987	$47,973	15.70
Bay Village City	6,660	62,920	133,351	2,480	46,345	16.50
Beachwood City	11,877	91,290	343,728	1,564	55,825	17.00
Bexley City	7,404	93,064	121,981	2,366	51,175	16.50
Brecksville-Broadview Heights	6,260	54,844	170,862	3,892	45,792	12.60
Centerville City	5,903	35,958	155,414	7,278	43,601	15.60
Chagrin Falls Ex. Village	6,808	100,178	168,143	1,885	47,525	16.10
Cuyahoga Heights Local	10,595	38,249	577,762	772	53,201	17.50
Forest Hills Local	4,858	60,268	115,307	7,992	45,442	15.40
Fort Recovery Local	4,568	29,687	53,534	993	34,835	15.70
Granville Exempted Village	5,272	60,761	130,270	1,615	43,225	16.70
Independence Local	8,608	46,954	392,453	952	48,352	14.10
Indian Hills Exempted Village	8,379	194,061	331,708	2,050	43,583	10.40
Kenston Local	5,676	61,130	127,691	3,024	43,099	12.90
Madeira City	4,192	54,031	117,441	1,498	42,881	14.40
Mariemont City	6,620	56,831	121,738	1,707	43,150	13.70
Marion Local	4,186	32,123	46,265	981	36,981	15.90
Mason City	4,894	44,925	94,012	4,746	37,645	8.60
New Knoxville Local	4,573	26,570	65,917	498	33,665	15.00
Oakwood City	6,945	80,084	129,907	1,767	42,103	13.90
Olmsted Falls City	6,130	37,875	89,406	2,963	44,383	14.00
Orange City	10,132	166,769	313,181	22,32	52,338	15.10
Ottawa Hills Local	8,032	120,861	130,068	974	48,251	16.30
Pickerington Local	5,404	48,218	73,185	6,646	44,736	13.40
Revere Local	5,989	83,107	201,270	2,844	43,082	14.80
Solon City	7,595	60,344	184,366	4,699	48,216	13.00
South Range Local	4,651	34,677	72,579	1,230	36,908	15.10
Upper Arlington City	8,532	75,415	181,875	5,519	50,100	16.70
Westlake City	7,680	62,518	237,340	3,635	47,695	15.60
Wyoming City	6,678	79,664	102,643	1,797	45,227	12.40
Group Average	6,704 *6,241	68,649	171,448	2,753	44,911	14.69
Ohio Average	4,640	35,958	91,750	2,953	39,836	14.60

*Group average without the three grayed figures.
Source: Ohio Department of Education.

Table 2
Assigned Weightings of the Formula: Seattle Plan

Grade Levels	Basic Ed*	Special Education					Bilingual	Test Scores			F & R Lunch
		Lev 1	Lev 2	Lev 3	Lev 4	Lev 4B		0-10%	11-20%	21-30%	
Pre-School**	0	0.92	.092	1.51	1.51	4.00	0.00	0	0	0	0
Kindergarten-Half	0.5	0.28	0.49	1.34	1.90	3.88	0.13	0	0	0	0.087
Kindergarten-Full	1.0	0.57	0.98	2.68	3.80	7.76	0.26	0	0	0	0.087
Primary (1-3)	1.0	0.57	0.98	2.68	3.80	7.76	0.26	.05	.03	.02	0.087
Intermediate (4-5)	0.94	0.57	0.98	2.49	3.80	7.76	0.26	.05	.03	.02	0.087
Middle School (6-8)	0.87	0.57	0.98	1.43	3.74	7.70	0.41	.05	.03	.02	0.18
High School (9-12)	0.88	0.57	0.98	1.08	3.74	7.70	0.42	.12	.08	.04	0.109

* Refers to Basic Education funds or state aid.
**Pre-school does not generate Basic Education funds.

Source: James Olchefske, "A Student Funding Plan for Equity and Achievement: Seattle School District Weighted Student Formula," Paper presented to the Annual Meeting of the American Education Finance Association, Seattle, Washington, March 1999.

Table 3
Assigned Weightings of the Formula: Ohio

Grade Levels	Basic Ed*	Special Education			Test Scores			F& R Lunch	Gifted Ed
		Lev 1	Lev 2	Lev 3	0-10%	11-20%	21-30%		
Kindergarten	.57	0.22	0.22	3.01	0	0	0	0.087	.00
Primary (1-3)	1.15	0.22	0.22	3.01	0	0	0	0.087	.01
Intermediate (4-5)	1.08	0.22	0.22	3.01	.05	.03	.02	0.087	.01
Middle School (6-8)	1.00	0.22	0.22	3.01	.05	.03	.02	0.087	.01
High School (9-12)	1.01	0.22	0.22	3.01	.05	.03	.02	0.087	.01

* Refers to Basic Education funds or state aid.

5 illustrates the algorithm employed for the elements in the Coalition Basket. As in Table 4, the formula is provided in the left-hand column and the application to one school district is presented on the right side of the table.

Results

Table 7 displays the per pupil results for each of the 30 school districts in the sample. The column entitled "Coalition" shows the dollar values derived via the formula in Table 5 while the column entitled "Weighted" depicts the dollar values calculated via the formula in Table 4. Several features are notable. There are no districts with extremely high costs per pupil like those seen in Table 1. Also, some differences between the numbers are small, as in Kenston Local, while others are rather large, as for New Knoxville Local. There does not appear to be a pattern in the findings. For some, the Coalition number is greater, e.g., Aurora City, Bay Village City, Beachwood City, and Bexley City; while, for others, the Weighted dollar values are greater, like Breckville-Broadview Heights, Fort Recovery Local, and Mason City.

Conclusions

The purpose of this paper was to propose a hybrid method for quantifying adequacy. For the purposes of this study, adequacy was defined on three levels: 1) definition of the basic term, 2) definition of an instructional delivery system consistent with the characterization of the basic term; and 3) definition or quantification of the per pupil cost of the instructional delivery system. Four current approaches of calculating the cost of an adequate education were reviewed: one statistically based; a second empirically based; a third based on professional judgment; and a fourth, an adequacy index based upon the McLoone Index. The model proposed in this article defined adequacy in terms of inputs or dollars per pupil necessary to achieve the outcomes required for a school district to be termed "effective" by the Ohio performance standards. Components of the empirical observation model were combined with those of the professional judgment model and applied first to a site-based system used in the Seattle School District. and then to the "basket" of essential learning resources developed by the Ohio Coalition. The overarching goal was to develop a system for financing Ohio schools that is uncomplicated, comprehensible, and clear.

The results of the analysis indicated clearly that the weighted model is much less complicated, less elusive, and easier to grasp, both conceptually and practically, than the Coalition "basket". The results

Table 4
General Formula with Assigned Weightings for Ohio and School District Example

General Formula	*Example: Aurora School District*
Kindergarten	
(a) = (Half # Students K x .57) x (Foundation)	159 x .57 = 79.50 x $3851 = **$306,154.50**
Grades 1-3	
(b) = (# Students 1-3 x 1.15) x (Foundation)	476 x 1.15 = 547.40 x $3851 = **$2,108,037.40**
Grades 4-5	
(c) = (# Students 4-5 x 1.08) x (Foundation)	319 x 1.08 = 344.52 x $3851 = **$1,326,746.52**
Grades 6-8	
(d) = (# Students 6-8 x 1.0) x (Foundation)	444 x 1.0 = 444.00 x $3851 = **$1,709,844.00**
Grades 9-12	
(e) = (# Students 9-12 x 1.01) x (Foundation)	586 x 1.01 = 591.86 x 3851 = **$2,279,252.86**
Subtotal for Regular Students	
(a) + (b) + (c) + (d) + (e) = Dollars for Regular Students	$306,154.50 + $2,108,037.40 + $1,326,746.52 + $1,709,844.00 +$2,279,252.86 = **$7,730,035.2**
Special Education Students	
Category 1	
(f) = (# SE Students Category 1 x .22) x (Foundation)	118.26 x .22 = 26.02 x $3851 = **$100,192.24**
Category 2	
(g) = (# SE Students Category 2 x .22) x (Foundation)	16 x .22 = 3.52 x $3851 = **$13,555.52**
Category 3	
(h) = (# SE Students Category 3 x 3.01) (foundation)	3 x 3.01 = 9.03 x $3851 = **$34,774.53**
Subtotal for Special Education Students	
(f) + (g) + (h) = Dollars for Special Education Students	$100,192.24 + $13,555.52 + $34,774.53 = **$148,522.29**
Gifted Students	
(i) = (# Gifted Students x .01) x (Foundation)	365 x .01 = 3.65 x $3851 = **$14,056.15**
At-Risk Students (Free and Reduced-Price Lunch Recipients)	
(j) = (# At-Risk Students x .087) (Foundation)	29.21 x .087 = 2.54 x $3851 = **$9,781.54**
Total	
(a) + (b) + (c) +(d) + (e) + (f) + (g) + (h) + (i) + (j) = Total Dollars	$7,730,035.28 + $148,522.29 + $14,056.15 + $9,781.54 = **$7,902,395.26/1987**
Adjusted Per Pupil Amount	
Total Dollars/Enrollment	**$3,977.05**

suggest that the efforts toward defining adequacy might promote equity as well. Furthermore, the results of using the weighted model as a prototype for Ohio data do not demonstrate substantial drawbacks at this time. Further analyses to statistically test the degree of similarities and differences need to be completed. However, this hybrid model shows potential for eliminating several of the barriers to interpreting adequacy in terms of expenditure per pupil.

Endnotes

1. See, Allan R. Odden and Lawrence O. Picus, *School Finance: A Policy Perspective* (Boston, Massachusetts: McGraw-Hill Companies, 2000).
2. *Brown v. Board of Education of Topeka*, 347 U.S. 483 (1954).
3. See, *McInnis v. Shapiro*, 293 F. Supp. 327 (N.D. Il. 1968); *Burruss v. Wilkerson*, 310 F.Supp. 572 (W.D. Va. 1969); and *Robinson v. Cahill*, 303 A2d 273 (N.J. 1973).
4. *Board of Education v. Walter*, 390 N.E.2d 813 (Ohio 1979).
5. *Edgewood Independent School District v. Kirby*, 7777 S.W.2d 391 (Tex. 1989).
6. *Rose v. Council for Better Education*, 790 S.W.2d 186 (Ky. 1989).
7. *DeRolph v. State of Ohio*, 677 N.E. 2d 733 (Oh. 1997).
8. Odden & Picus (2000) p.38.
9. *Webster's Revised Unabridged Dictionary* (MICRA, Inc., 1998) <http://www.dictionary.com/>.
10. *WorldNet* (Princeton University, 1997) <http://www.dictionary.com/>.
11. Odden & Picus (2000) p.69.
12. Joseph Olchefske, *"A Student Funding Plan for Equity and Achievement: Seattle School District Weighted Student Formula,"* Paper presented to the Annual Meeting of the American Education Finance Association, Seattle, Washington, March 1999.
13. *Ohio Coalition for Equity & Adequacy, Basket of Essential Learning Resources for the 21st Century* (Columbus, Ohio: October 1999).

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Table 5
General Formula for Ohio and School District Example Using the Coalition Basket

General Formula	*Example - Aurora School District*
Kindergarten - Grade 3	
(a) # Students K-3 / 19 x (Average teacher compensation) = Dollars for K-3 Teaching	556/19 = 29 x $60,000 = **$1,740,000.00**
Grades 4-8	
(b) # Students 4-8 / 22 x (Average teacher compensation) = Dollars for 4-8 Teaching	763/22 = 34.68 x $60,000 = **$2,080,800.00**
Grades 9-12	
(c) # Students 9-12 / 24 x (Average teacher compensation) = Dollars for 9-12 Teaching	586/24 = 24.42 x $60,000 = **$1,465,200.00**
Subtotal for Regular Teaching	
(a) + (b) + c) = Dollars for Regular Teaching	$1,740,000 + $2,080,800 + $1,465,200 = **$5,286,000.00**
Special Education	
Category 1	
(d) # Students 1 / 16 x (Average teacher compensation) = Dollars for Teaching Special Ed 1	118.26/16 = 7.39 x $60,000 = **$443,400.00**
Category 2	
(e) # Students 2 / 16 x (Average teacher compensation) = Dollars for Teaching Special Ed 2	16/16 = 1 x $60,000 = **$60,000**
Category 3	
(f) # Students 3 / 16 x (Average teacher compensation) = Dollars for Teaching Special Ed 3	3/16 = .19 x $60,000 = **$11,400.00**
Subtotal for Special Education Teaching	
(d) + (e) + (f) = Dollars for Special Education Teaching	$443,400 + $60,000 + $11,400 = **$514,800.00**
Gifted Teaching	
(g) # Gifted Students / 15 x (Average Teacher Compensation) = Dollars for Teaching Gifted	365/15 = 24.33 x 60,000 = **1,460,000**
At-Risk Teaching (Free and Reduced-Price Lunch Recipients)	
(h) (# At-Risk Students x .08) ($3851) = Dollars for Teaching At-Risk	29.21 x .08 = 2.34 x 3851 = **8,999**
Teachers: Music, Art, Physical Education	
(i) # of Students x 3 / 500 x (Average Teacher Compensation)	1987/500 = 3.97 x 3 = 12 x 60,000 = **720,000**
Total	
(a) + (b) + (c) +(d) + (e) + (f) + (g) + (h) + (i) + (j) = Total Dollars	$5,286,000 + $514,800 + $1,460,000 + $8,999 = **$7,269,799**
Adjusted Per Pupil Amount	
Total Dollars/Enrollment	**$3,658.68**

14. James W. Guthrie and Richard Rothstein, "Enabling 'Adequacy' to Achieve Reality: Translating Adequacy Into State School Finance Distribution Arrangements," In Helen F. Ladd, Rosemary Chalk, and Janet S. Hansen, Eds., *Equity and Adequacy in Education Finance: Issues and Perspectives* (Washington, D.C.: National Academy Press, 1999).

15. Odden and Picus (2000).

16. Andrew Reschovsky and Jennifer Imazeki, "The Development of School Finance Formulas to Guarantee the Provision of Adequate Education to Low-Income Students," In William F. Fowler, Ed., *Developments in School Finance 1997* (Washington, D.C.: U.S. Department of Education, National Center for Educational Statistics, 1998) p. 135.

17. The Milwaukee Public Schools had the highest index in the Reschovsky and Imazeki study.

18. William D. Duncombe and James M. Yinger, "Performance Standards and Educational Cost Indexes: You Can't Have One Without the Other", In Ladd et al. (1999) p. 261.

19. See, John Augenblick, *"Testimony of Dr. John Augenblick to the Task Force on School Funding"* (Denver, Colorado: Augenblick & Meyers, June 10, 1997).

20. Augenblick (June 10, 1997) p. 2.

Table 6
Comparison of Coalition vs. Weighted Results

School District	Per Pupil Cost of Teaching for Adequacy	
	Coalition	Weighted
Aurora City	$4,150	$3,999
Bay Village City	4,205	3,990
Beachwood City	4,768	4,018
Bexley City	4,534	4,015
Breckville-Broadview Heights	3,906	3,949
Centerville City	4,290	4,000
Chagrin Falls Exempted Village	4,522	4,006
Cuyahoga Heights Local	4,631	4,009
Forest Hills Local	4,148	3,988
Fort Recovery Local	3,199	3,945
Granville Exempted Village	4,721	4,004
Independence Local	4,917	3,965
Indian Hills Exempted Village	3,445	3,789
Kenston Local	4,045	4,018
Madeira City	4,326	3,952
Mariemont City	3,449	3,977
Marion Local	4,816	4,389
Mason City	3,269	3,949
New Knoxville Local	3,000	4,018
Oakwood City	3,526	4,013
Olmstead Falls City	3,373	4,013
Orange City	4,980	3,975
Ottawa Hills Local	4,965	3,998
Pickerington Local	4,354	3,981
Revere Local	3,485	3,988
Solon City	5,113	4,042
South Range Local	2,933	4,023
Upper Arlington City	4,363	4,005
Westlake City	3,720	4,026
Wyoming City	4,849	3,982

21. Augenblick (June 10, 1997) p. 3.
22. Augenblick (June 10, 1997).
23. John Augenblick, *Recommendations for a Base Figure and Pupil-Weighted Adjustments to the Base Figure for Use in a New School Finance System in Ohio*, Report prepared for the School Funding Task Force (Columbus, Ohio: Ohio Department of Education, July 17, 1997) pp. 10-11.
24. Augenblick (July 17, 1997) p. 19.
25. Guthrie and Rothstein (1999), p. 220.
26. Jay G. Chambers and Thomas B. Parrish, "State Level Education Finance," In W.S. Barnett, Ed., *Cost Analysis for Education Decisions: Methods and Examples, Advances in Educational Productivity, Vol. 4* (Greenwich, Connecticut: JAI Press, 1994).
27. The Resource Cost Model is explained in detail in their earlier work. See Jay G. Chambers and Thomas B. Parrish, *Adequacy and Equity in State School Finance and Planning: A Resource Cost Model Approach* (Stanford, California: Institute for Research on Educational Finance and Governance, March 1983).
28. Chambers and Parrish (1994) p. 72.
29. This study is often referred to as the "MAP study, " MAP being an acronym for the consulting firm of Management, Analysis, and Planning Associates, L.L.C. See, James W. Guthrie, Gerald C. Hayward, James R. Smith, and Richard Rothstein, *A Proposed Cost-Based Block Grant Model for Wyoming School Finance*, Report submitted to Joint Appropriations Committee of the Wyoming Legislature (April 1997) p. 29 <http://legisweb.state.wy.us/school/cost/apr7/exec.htm>.
30. Guthrie et al. (April 1997) p. 70.
31. Odden and Picus (2000).
32. See Ohio Proficiency Tests-Update Center (2000) <http://www.state.oh.us/proficiency/index.htm>.
33. Augenblick (June 10, 1997); Augenblick (July 17, 1997).
34. The mission of the Coalition for Equity & Adequacy, hereafter referred to as the Coalition, is to pursue efforts to achieve equity and adequacy in school funding across the state, founded on the Ohio constitutional mandate of a "thorough and efficient system of common schools." The work of the Coalition is focused on testing the constitutionality of the Ohio school funding system. The Coalition is supported by its member districts, with each paying approximately $.50 per pupil annually.
35. For the results of data collection and analysis, see *Ohio Coalition for Equity & Adequacy, Basket of Essential Learning Resources for the 21st Century* (Columbus, Ohio: October 1999).
36. *Ohio Coalition for Equity & Adequacy* (October 1999) p. 13.
37. Olchefske (March 1999).

APPENDIX A - Basket of Essential Learning Resources Grid

Grade Level	*Grades PreK - 3*	*Grades 4 - 8*	*Grades 9 - 12*
I. CURRICULUM **A. Primary and Middle/Jr. High**			
1. Full Day Kindergarten	**Essential**		
2. 1/2 day state-supported pre-school option for 4-year-olds	**Essential**		
3. reading	**Essential**	**Essential**	
4. writing	**Essential**	**Essential**	
5. mathematics	**Essential**	**Essential**	
6. social studies	**Essential**	**Essential**	
7. science	**Essential**	**Essential**	
8. English	**Essential**	**Essential**	
9. Foreign Language	**Essential**	**Essential**	
10. art	**Essential**	**Essential**	
11. music (vocal and instrumental)	**Essential**	**Essential**	
12. health/physical education	**Essential**	**Essential**	
13. career awareness/orientation/exploration	**Essential**	**Essential**	
14. technology	**Essential**	**Essential**	
15. advanced placement opportunities	**Essential**	**Essential**	
16. performing arts (drama/theater, dance)		**Essential**	
17. work and family life		**Essential**	
18. industrial technology		**Essential**	
B. High School		**Essential**	minimum number of courses
1. English/language arts		**Essential**	7 courses*
2. mathematics		**Essential**	7 courses*
3. science		**Essential**	7 courses*
4. social studies		**Essential**	7 courses*
5. foreign language			3 courses of at least 1 unit of credit each in 3 languages
6. health/physical education			2 courses
7. business/technology			5 courses
8. music (vocal and instrumental)			8 courses (4 credits)
9. art (visual, drama/theater, dance)			3 courses
10. industrial technology			2 courses
11. work and family life			4 courses
12. vocational (career-technical education)			20 courses
13. advanced placement			**1 course in each of: mathematics, social studies, science and English, in addition to 7 other courses
14. electives			7 courses
C. Flexibility is essential at all grade levels for students with disabilities, gifted and disadvantaged students.	**Essential**	**Essential**	**Essential**

**minimum four courses of at least 1 unit of credit each*

APPENDIX A - Basket of Essential Learning Resources Grid Continued

Grade Level	*Grades PreK - 3*	*Grades 4 - 8*	*Grades 9 - 12*
II. PROGRAMS/SERVICES			
A. Special education	**Essential**	**Essential**	**Essential**
B. Psychological services	**Essential**	**Essential**	**Essential**
C. Speech Pathology	**Essential**	**Essential**	**Essential**
D. Hearing services	**Essential**	**Essential**	**Essential**
E. Audiology services	**Essential**	**Essential**	**Essential**
F. Vision services	**Essential**	**Essential**	**Essential**
G. Occupational therapy	**Essential**	**Essential**	**Essential**
H. Physical therapy	**Essential**	**Essential**	**Essential**
I. Gifted pupil education	**Essential**	**Essential**	**Essential**
J. Compensatory programming for disadvantaged	**Essential**	**Essential**	**Essential**
K. Guidance and counseling including career planning	**Essential**	**Essential**	**Essential**
L. Nursing	**Essential**	**Essential**	**Essential**
M. Social	**Essential**	**Essential**	**Essential**
N. Conflict resolution training for students	**Essential**	**Essential**	**Essential**
O. Library/media	**Essential**	**Essential**	**Essential**
P. Visiting teacher	**Essential**	**Essential**	**Essential**
Q. Attendance personnel	**Essential**	**Essential**	**Essential**
R. Food	**Essential**	**Essential**	**Essential**
S. Transportation	**Essential**	**Essential**	**Essential**
T. Student testing	**Essential**	**Essential**	**Essential**
U. Tutoring	**Essential**	**Essential**	**Essential**
V. Services for English as a Second Language students	**Essential**	**Essential**	**Essential**
W. Proficiency intervention services	**Essential**	**Essential**	**Essential**
X Supervision for education operations	**Essential**	**Essential**	**Essential**
Y. Security	**Essential**	**Essential**	**Essential**
Z. Community/facility use	**Essential**	**Essential**	**Essential**
AA. Communications services	**Essential**	**Essential**	**Essential**
BB. Parent support services	**Essential**	**Essential**	**Essential**
CC. Vocational education (career-technical education) services			**Essential**
DD. Access to business partnerships	**Essential**	**Essential**	**Essential**
EE. Extra-curricular activities		**Essential**	**Essential**
FF. Field trips	**Essential**	**Essential**	**Essential**

APPENDIX A - Basket of Essential Learning Resources Grid Continued

Grade Level	*Grades PreK - 3*	*Grades 4 - 8*	*Grades 9 - 12*
III. DELIVERY SYSTEMS			
A. Facilities 1. Teaching Areas			
a. regular classroom	**Essential**	**Essential**	**Essential**
b. special education	**Essential**	**Essential**	**Essential**
c. vocational education (career-technical)			**Essential**
d. music (vocal and instrumental)	**Essential**	**Essential**	**Essential**
e. art	**Essential**	**Essential**	**Essential**
f. drama/auditorium		**Essential**	**Essential**
g. science laboratories	**Essential**	**Essential**	**Essential**
h. gymnasiums	**Essential**	**Essential**	**Essential**
i. Libraries (including INFOhio connectivity)	**Essential**	**Essential**	**Essential**
j. multi-media computer laboratories	**Essential**	**Essential**	**Essential**
1) industrial technology		**Essential**	**Essential**
2) work & family life		**Essential**	**Essential**
3) business education		**Essential**	**Essential**
k. foreign language labs		**Essential**	**Essential**
l. distance learning	**Essential**	**Essential**	**Essential**
m. tutoring	**Essential**	**Essential**	**Essential**
n. small group instruction	**Essential**	**Essential**	**Essential**
2. Support areas	**Essential**	**Essential**	**Essential**
a. counseling	**Essential**	**Essential**	**Essential**
b. clinic	**Essential**	**Essential**	**Essential**
c. parent conference	**Essential**	**Essential**	**Essential**
d. clerical	**Essential**	**Essential**	**Essential**
e. administration	**Essential**	**Essential**	**Essential**
g. cafeteria/kitchens	**Essential**	**Essential**	**Essential**
h. multi-media computer networks with at least a T1 connection	**Essential**	**Essential**	**Essential**
B. Equipment and Materials			
1. textbooks	replace every 5 years	replace every 5 years	replace every 5 years
2. workbooks	New each year	New each year	New each year
3. multi-media computers	1 per every 5 students	1 per every 5 students	1 per every 5 students
4. multi-media computers software	replace every 5 years	replace every 5 years	replace every 5 years
5. multi-media computer printers	2 per classroom	2 per classroom	2 per classroom
6. multi-media computer scanners	1 per classroom	1 per classroom	1 per classroom
7. multi-media computer systems	budget a per pupil amount annually	budget a per pupil amount annually	budget a per pupil amount annually
8. calculators	As required	As required	As required
9. televisions/VCR	1 per classroom	1 per classroom	1 per classroom
10. overhead projectors	1 per classroom	1 per classroom	1 per classroom
11. science materials	As per model curriculum	As per model curriculum	As per model curriculum
12. library collections	1 per building	1 per building	1 per building
13. videos	replace every 5 years	replace every 5 years	replace every 5 years
14. classroom supplies	essential	essential	essential
15. telephone systems	1 per classroom	1 per classroom	1 per classroom
16. instruments for music education	essential	essential	essential

APPENDIX A - Basket of Essential Learning Resources Grid Continued

Grade Level	*Grades PreK - 3*	*Grades 4 - 8*	*Grades 9 - 12*
C. Professional Staff Development			
1. licensed/certified personnel	10 days per year	10 days per year	10 days per year
2. support staff	5 days per year	5 days per year	5 days per year
3. substitutes	2 days per year	2 days per year	2 days per year
D. Evaluation Resources			
Provide each student with:			
1. personal plan for progress	**Essential**	**Essential**	**Essential**
2. staff advisor		**Essential**	**Essential**
3. assessment for job			**Essential**
Each teacher should have:			
1. time to advise students	**Essential**	**Essential**	**Essential**
2. peer evaluation	**Essential**	**Essential**	**Essential**
3. peer collaboration	**Essential**	**Essential**	**Essential**
E. Staffing			
1. Number of Pupils per Teacher *			
a. primary grades (preK-3) regular	18-20:1		
b. primary grades (preK-3) poverty	15:1		
c. intermediate grades (4-5,4-6)		22:1	
d. grades (7-8)		22:1	
e. high school (9-12)			24:1
2. Specialized Teachers			
a. physical education teachers	500:1	500:1	
b. art teachers	500:1	500:1	
c. music teachers	500:1	500:1	
d. performing arts/drama teachers			**Essential**
e. gifted teachers-self-contained classroom	15:1	15:1	15:1
f. gifted teachers, resource and intervention specialist	60:1	60:1	60:1
g. gifted coordinators	3500:1 or minimum .5 per district	3500:1 or minimum .5 per district	3500:1 or minimum .5 per district
3. Special Education Teachers			
a. teacher LD	16 max.	16 max.	22 max.
b. teacher DH	16 max.	16 max.	22 max.
c. MH/SBH/low incidence	8 max. + aide	8 max. + aide	8 max. + aide
d. supervisors	required	required	required
e. aides	As needed	As needed	As needed
f. occupational therapy	required	required	required
g. physical therapy	required	required	required
4. Special Services Personnel			
a. social workers for districts with high rates of poverty	2000:1	2000:1	2000:1
b. visiting teachers/attendance personnel	2500:1, minimum 1 per district	2500:1, minimum 1 per district	2500:1, minimum 1 per district
c. psychologists	1250:1	1250:1	1250:1
d. audiologist	available	available	available

*To compute class size count regular classroom teacher and licensed intervention specialists, but exclude educational service personnel. Class size and personnel ratios must be modified to accommodate school districts with high rates of poverty and high rates of student mobility and/or higher than average rates of students with disabilities.

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APPENDIX A - Basket of Essential Learning Resources Grid Continued

Grade Level	*Grades PreK - 3*	*Grades 4 - 8*	*Grades 9 - 12*
4. Special Services Personnel continued			
e. speech pathologists	1250:1	1250:1	1250:1
f. hearing	1250:1	1250:1	1250:1
g. vision	1250:1	1250:1	1250:1
h. librarians/media specialists	Min. 1 licensed librarian/media specialist per district + 1 high school librarian with library/media services available in each building	Min. 1 licensed librarian/media specialist per district + 1 high school librarian with library/media services available in each building	Min. 1 licensed librarian/media specialist per district + 1 high school librarian with library/media services available in each building
i. licensed Guidance Counselors	500:1	400:1	250:1
j. nurses	1500:1 + daily nursing services provided by trained nursing aides in every building	1500:1 + daily nursing services provided by trained nursing aides in every building	1500:1 + daily nursing services provided by trained nursing aides in every building
k. technology coordinator	Min. 1 per district	Min. 1 per district	Min. 1 per district
l. EMIS coordinator	Min. 1 per district	Min. 1 per district	Min. 1 per district
m. substitute teachers	**Essential**	**Essential**	**Essential**
5. Administrative Personnel			
a. Principal/Assistant Principal	500:1, Principal to serve no more than 2 buildings	500:1, Principal to serve no more than 2 buildings	500:1, Principal to serve no more than 2 buildings
6. Other Personnel			
a. Instructional Assistants	available	available	available
b. Clerical Personnel	350:1	350:1	350:1
7. Maintenance Personnel	As appropriate	As appropriate	As appropriate
F. District Leadership/Supervisory Personnel			
1. General administration	**Essential**	**Essential**	**Essential**
2. Instructional and curriculum	**Essential**	**Essential**	**Essential**
3. Fiscal	**Essential**	**Essential**	**Essential**
4. Facility maintenance	**Essential**	**Essential**	**Essential**
5. Transportation	**Essential**	**Essential**	**Essential**
6. Food services	**Essential**	**Essential**	**Essential**
7. Extra-curricular	**Essential**	**Essential**	**Essential**
8. Professional development	**Essential**	**Essential**	**Essential**
G. State-funded supplemental delivery system strategies			
1. Independent study and other educational options	**Essential**	**Essential**	**Essential**
2. Post secondary options			**Essential**
3. Virtual schools (Internet)	**Essential**	**Essential**	**Essential**
4. Distance learning	**Essential**	**Essential**	**Essential**
5. Closed circuit TV	**Essential**	**Essential**	**Essential**
6. Independent study and other education options	**Essential**	**Essential**	**Essential**
7. Public television	**Essential**	**Essential**	**Essential**
8. Cooperative agreements with neighboring districts	**Essential**	**Essential**	**Essential**
9. State-supported joint centers for special curricular areas	**Essential**	**Essential**	**Essential**

Sanctions in Performance-Based Accountability Systems

Judith K. Mathers

During the decade of the 1990s, state educational accountability systems shifted from "procedural accountability" to "educational accountability."[1] No longer evaluated by such arbitrary measures as the number of new books added to the school library, schools and districts became accountable for student performance through performance-based accountability systems. These systems held school and districts accountable through state assessments that incorporated incentives or rewards for high or improved student performance and sanctions or interventions for low performance. The focus of this article is the range of sanctions that states and, more recently, the federal government, has enacted, with a special emphasis on the most controversial of these—fiscal sanctions.

To understand the part that sanctions play in performance-based accountability, I first look at the design of performance-based accountability systems, identifying and defining the separate accountability components. The specific types of sanction used in state systems, as well as the federal sanctions delineated in the No Child Left Behind Act of 2001,[2] are then presented with their definitions. The discussion concludes with a brief analysis of the fiscal sanction of withholding state funds used in four states, followed by conclusions and questions for future research.

Design of Performance-Based Accountability Systems

Performance-based accountability systems are currently characterized by the presence of five major components. Originally, they were conceived as a general, three-part framework consisting of standards and assessments; multiple indicators; and incentives. Over time, performance-based accountability systems have grown into well-defined structures with the following components:

- Standards- statements of what students should know and be able to do.
- Assessments- instruments designed to measure how successful students are in meeting the standards. In addition, assessments must be aligned to the standards.
- Multiple indicators- measures that either directly or indirectly gauge the effect of a particular education element on student achievement. Indicators may be considered primary or secondary. Primary indicators activate the rewards and sanctions components of a performance-based system. Secondary indicators are collected and publicly reported but do not activate other system components.
- Rewards- awards granted to a school, district, or other entity defined in statute or regulation when student achievement exceeds either the established standard or previously reported outcomes. They are usually monetary in nature.
- Sanctions- consequences applied to districts or schools when student assessment scores fail to meet set performance standards or when scores continually fail to show gains.[3]

Once states have identified the performance standards or levels of student achievement that must be met, data from assessments and other indicators can be used to measure high, adequate, and low performance. Sanctions can then be applied to low-performing schools or districts.

Sanctions: The Performance-Based Accountability System Workhorse

The sanctions component of state performance-based accountability systems is primarily created in one of two ways. It may have been formulated as part of a completely new system as occurred in the Kentucky Education Reform Act (KERA) or rewritten from an existing school accreditation system, as was the case in Colorado. Whichever method is used, sanctions components have specific types or levels that are held in common across states though not all levels are present in every state system. They range in severity from a simple written warning to state takeover. The desire to avoid sanctions can be a powerful motivator for change.[4] The fear of being labeled as a school "in decline," "failing," or a "priority school" may offer the sense of urgency required to advance reform in low-performing schools and districts.

Over the past decade, policymakers have begun to understand that neither the desire to improve education for students nor the fear of sanctions for failure to do so is sufficient to bring about reform. They realized that if sufficient resources, whether physical, human, or monetary, do not exist, then the existing capacity within the school or district is insufficient to facilitate the necessary reform. Support in the form of planning assistance, professional development, and additional funding are critical. As a result, the concept of capacity building became a part of performance-based accountability systems sanctions for low-performance schools. Capacity building can take many forms. For example, technical assistance might be provided in the form of professional development for principals and teachers. Additional funding, either in loans or grants, can help with building repairs and the purchase of additional textbooks and supplies for students. In many states, department of education personnel provide direct assistance in the development of district or school improvement plans.

In an analysis of state accountability policies, Ziebarth listed eleven types of sanctions present within state performance-based accountability systems.[5] The sanction type is present for schools or districts in the number of states indicated in parentheses.

- Written warning (9 states) - A written warning is supplied when a school or district is identified as low-performing.
- Technical assistance (29 states) - In 15 of the 29 states, the state is mandated to supply technical assistance to low-performing school districts. In the other 14, assistance may be provided, but the state is not required to do so.

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• Additional funding (11 states) - In five states, additional funding must be given to low-performing districts. In the other six, the state may grant additional funds, but is not mandated to do so. Funding is generally in the form of a grant or a loan.

• District/school improvement plan (36 states) - Plans are created for a school or district by the district; or as in the case of 13 states, the plan is written by another entity, such as the state department of education.

• Probation (14 states) - This designation generally refers to probationary status for a school or district as part of the accreditation system.

• Removal of accreditation (18 states) - A school or district may have its state accreditation revoked. This action may be followed by a variety of other sanction procedures.

Table 1
States with each type of sanction

Sanction Type	*For Districts*	*For Schools*
Written Warning	Alaska, Colorado, New Mexico, Pennsylvania, West Virginia	Arkansas, Kansas, New Mexico, Nevada, New York
Technical Assistance	Arkansas, Colorado, Delaware, Florida, Mississippi, Missouri, New Jersey, New Mexico, North Carolina, Oklahoma, Pennsylvania, Rhode Island, South Carolina, West Virginia, Wyoming	Alabama, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Indiana, Kentucky, Louisiana, Maryland, Michigan, New Mexico, New York, North Carolina, Oklahoma, Oregon, Rhode Island, South Carolina, Vermont, Virginia, West Virginia, Wyoming
Additional Funding	Colorado, Mississippi, New Jersey, Pennsylvania, Rhode Island	California, Indiana, Kentucky, Maryland, Missouri, Rhode Island, South Carolina
Improvement Plan	Alabama, Arkansas, Colorado, Delaware, Florida, Iowa, Illinois, Massachusetts, Mississippi, Missouri, New Jersey, New Mexico, North Carolina, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, West Virginia, Wyoming	Alabama, Alaska, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Illinois, Indiana, Kansas, Kentucky, Louisiana, Maryland, Massachusetts, Missouri, Nevada, New Mexico, New York, North Carolina, Oregon, Rhode Island, South Carolina, Tennessee, Texas, Vermont, Virginia, West Virginia, Wyoming
Probation	Colorado, Indiana, Mississippi, Missouri, New Mexico, Pennsylvania, Rhode Island, South Carolina, Tennessee	Colorado, Indiana, Maryland, Massachusetts, Missouri, Nevada, New Mexico, New York, Rhode Island, Tennessee, Vermont
Removal of Accreditation	Colorado, Delaware, Iowa, Mississippi, Missouri, New Mexico, North Carolina, Oklahoma, Rhode Island, South Carolina, West Virginia, Wyoming	Colorado, Delaware, Kansas, Louisiana, Michigan, New Mexico, New York, Oklahoma, Rhode Island, Vermont, Virginia, West Virginia, Wyoming
Funding Withheld	Florida, Illinois, Kansas, Mississippi, Rhode Island	Florida, Kansas, Louisiana, Rhode Island
Reconstitution	*(not applicable)*	Arkansas, California, Colorado, Connecticut, Florida, Georgia, Illinois, Kansas, Louisiana, Maryland, Massachusetts, Missouri, New York, North Carolina, Oklahoma, Rhode Island, South Carolina, Texas, Vermont
Reorganization of School District	Arkansas, Colorado, Illinois, Iowa, Kansas, Mississippi, Missouri, Oklahoma, Rhode Island, Texas	*(not applicable)*
School Closure	*(not applicable)*	Arkansas, California, Connecticut, Maryland, Michigan, New York, Oklahoma, Rhode Island, Texas, Vermont
Takeover	Alabama, Arkansas, California, Connecticut, Illinois, Iowa, Kentucky, Massachusetts, Maryland, Michigan, Mississippi, Missouri, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, West Virginia	Alabama, Arkansas, California, Colorado, Georgia, Illinois, Maryland, Michigan, Nevada, North Carolina, Rhode Island, South Carolina, Texas, Vermont

• Withholding of state funding (6 states) - Generally this is a sanction of last resort. An analysis of four of the six states is presented in a later section.
• Reconstitution of school (19 states) - Reasons for reconstitution may include one or more of the following: low performance on state assessments; deteriorating buildings; low attendance or graduation rates; or high dropout rates. Use of this sanction usually involves creating a new school or district philosophy; development of a new curriculum; and the hiring of new staff.
• Reorganization of district (10 states) - Districts may be dissolved with schools incorporated into neighboring districts.
• Takeover of district (24 states) - Reasons for takeover may include fiscal mismanagement, inept administration, corrupt governance, or crumbling infrastructure.
• Takeover or closure of school (14 and 10 states, respectively) - The reason for takeover or closure is generally based upon academic problems identified within the school.[6]

Table 1 presents each of the types of sanction defined above, identifying the states that include each of the sanctions for schools or districts.

Sanctions Within Federal Law

On January 8, 2002, President George W. Bush signed into law the No Child Left Behind Act of 2001.[7] Within this massive education bill is the mandate for performance-based accountability, including the requisite standards, assessments, multiple indicators, rewards, and sanctions.

Sections 1116-117 outline the sanctions of the system. After a school has been identified as low-performing, the following, and now familiar, sanctions may be applied:
• A school plan must be developed or, in the case of an existing plan, revised.
• Technical assistance must be provided, with specific assistance in the areas of data analysis (both assessment and fiscal), professional development, and instructional strategies.
• Corrective action (reconstitution) may be taken which includes replacement of school staff; implementation of a new curriculum; a decrease in authority for school administration; appointment of an outside advisor or expert; extension of the school year or day; or restructuring of the internal organization of the school.
• If the school does not make what is considered adequate yearly progress in first cycle of corrective action (one full year), alternative methods of governance may be implemented. They include:
  - Conversion of the school to a public charter school.
  - Replacement of all or part of the staff, which may include the principal.
  - Privatization of the school, using a management company. The company must have a demonstrated record of effectiveness.
  - Takeover by the state department of education. This action must be in accordance with existing state law and must be agreed to by the state.

If a district is identified for corrective action, other specific sanctions may be applied. Again, these are present in statute or regulation in one or more states:
• Funds may be withheld from the district. Program funds may be deferred and funds to support administration may be reduced.
• Parallel to the sanctions of reconstitution and takeover:
  - A new curriculum may be implemented, which is to include necessary professional development.
  - Single schools may be removed from the jurisdiction of the district and placed under alternate forms of governance and supervision.
  - A receiver or trustee may be appointed by the state to manage district affairs instead of the superintendent and school board.
  - The district may be restructured or abolished.
  - Students may be authorized to transfer to higher performing schools in other districts with transportation provided.

The details of the Act are quite specific concerning accountability and the description of the individual components. Also, it is obvious that the content of the accountability sections has been heavily influenced by existing state statute and regulation. Federal policymakers appear to have joined state policymakers in ascribing to the theory, "...that measuring performance and coupling it to rewards and sanctions will cause schools and the individuals who work in them to perform at higher levels..."[8] Observing how federal involvement in educational accountability will play out over the next decade will indeed be worth continuing observation and study.

It is interesting to note that the least used sanction in the states–withholding of state funding–has been included at the federal level. How this particular type of sanction has played out in the states and how it will play out at the federal level are questions for future research. However, a brief analysis of existing statues in four states is possible at this point, and is presented in the next section.

Fiscal Sanctions: Withholding of State Funding

The sanction that allows a state to withhold state funding from a district or school identified as low-performance is among the least known and the most controversial. In addition, as stated previously, it is the sanction least often included in a state performance-based accountability systems. Ziebarth identified six states that have the authority to withhold state funding as a type of sanction.[9] (See Table 1.) Brief descriptions of the policies from four of the states are presented below, each offering a different model for this policy option.

Florida

In the Florida performance-based accountability system, withholding of state funds is used as a sanction only if all other recommended actions intended to improve performance within a school district have failed. Specifically, funds may be withheld if: (1) The school district has failed to comply with an ordered corrective action within the timeframe specified in the action; or (2) The school board in an identified low-performing district has failed to create and implement a required improvement plan.[10]

Illinois

Withholding of state funds in Illinois does not appear quite as formidable as in Florida. School districts that fail to: (1) submit or obtain approval of their school improvement plans; or (2) make what the state considers a reasonable effort to implement an approved improvement plan may be subject to the withholding of state funding.[11] The statutory language goes on to present what are considered far more serious sanctions of removal of the school board and permanent dissolution of the school district.

Kansas

The performance-based accountability system in Kansas is unique in that the general mandate for the system occurs in statute, but the specifics of the system are housed in regulation. Sanctions may be applied to any school that does not make progress on or maintain

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acceptable levels of student performance, or achieve accredited status within the system.[12] The regulation states that state funding for a district may be reduced by an amount to be added to the local property tax imposed by the local school board if such action is recommended by the state board to the legislature. Not only is state funding withheld, but the district is mandated to replace the state funding with district tax revenues, an ominous prospect for districts that are already taxing at maximum levels.

Mississippi

In Mississippi, the withholding of state funds is not tied to student performance, and therefore it may be considered a far less severe sanction than those of other states. Funds may only be withheld if a district fails to report student, school personnel or fiscal data in a timely manner necessary to fulfill state or federal requirements.[13]

A Brief Analysis of the Four Policy Models

Although all four states apply the sanction of withholding of state funds only at the district level, the level of severity of the sanction is quite different in each of the states. In Mississippi, because sanctions are not tied to student performance, complying with the law is simply a matter of getting reports in on time. Illinois sanctions appear to be tied to student performance insofar as an improvement plan must be created after the district is identified as low-performing. Drafting an improvement plan and making every effort to successfully implement it allow the district to avoid withholding of state funds; no actual improvement in student performance is required. Florida and Kansas present a much different picture. It would be easy to say that the Florida sanction appears the most severe since the statute specifically states that withholding of funds is only done after all other corrective actions have failed. Indeed, to have failed at every turn in reform and then to have funding withheld would likely erase the last shred of hope in a seemingly hopeless situation.

I would offer, however, that the situation a Kansas district might face could prove to be more difficult. Kansas has the only policy that outlines how the withheld funds are to be replaced; and because lost state funds must come from local taxes, the failure of the district would cause more than just bad publicity. It would impact the pocketbooks of the voting public. Not only would additional local funds have to be raised, but current school board members might find retaining their seat on the board more difficult in the next election cycle.

Conclusions

Performance-based accountability systems rapidly developed over the last decade and will continue to evolve during the beginning of the 21st Century. The five major components of standards, assessments, multiple indicators, rewards, and sanctions form the backbone of performance-based accountability systems design at the state level, and, with the enactment of the No Child Left Behind Act of 2001, are now present at the federal level.[14] Identification of low-performing schools and districts and the desire to avoid attending sanctions serve as powerful motivators for education reform. The addition of capacity building as a part of sanctions during the last half of the past decade represents a positive step in state reform efforts to improve the achievement of all students.

The use of sanctions to motivate improvement is an integral part of both performance-based accountability systems structure and their philosophy; but if a sanction, such as the withholding of state funding, has little chance of positively impacting student performance, the purpose of that sanction is called into question. If withholding funds is used as a motivator for schools and district to submit reports in a timely manner, as in Mississippi, the sanction would have minimal effect on students and might therefore be considered to have a positive effect. However, when funds are withheld as a severe level of sanction tied to low student performance, the effect on students may be immediate, negative, and considerable.

Further research is needed in the role of sanctions as a part of performance-based accountability systems. Of particular importance is the use of withholding of state or federal funding, as well as other fiscal sanctions not identified here. If performance-based accountability systems are to be successful in their stated purpose of improving student learning, all components of the system must contribute to that goal in a positive manner.

Endnotes

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Investing in Professional Judgment-in-Action: Negotiating Relationships That Enhance Trust, Responsibility, and Efficacy

Cynthia J. Reed and Margaret Ross

Investing in Professional Judgment-in-Action: Negotiating Relationships That Enhance Trust, Responsibility, and Efficacy[1]

Teachers' judgment-in-action has been maligned by current policies and legislation, as well as the cultures and structures of schools. During the last decade, there have been numerous calls for educational reform, often accompanied by expanded legislation to control, structure, and evaluate schools.[2] Most of these legislative mandates created policies focused on increased accountability. Frequently they included measures to assess student and personnel performance, dictate structural and governing arrangements, and impose curricular standards. Many of these accountability policies are punitive in nature: If a school or student does not perform well on standardized tests, then a punishment is administered. Although standardized test scores have been raised in some instances, there is a general feeling among many educators that these "reforms" are not working.[3] Punitive accountability mandates do not work because they do not allow for the complexity of schools and the communities in which they are situated. Experts in school change theory agree that there must be a greater emphasis upon the roles, rules, and relationships governing schools if long-term and meaningful reform is the goal.[4]

If a renewal of roles, rules, and relationships is to occur, there is a need to re-examine the importance of civility and balance in the professional identities of teachers. One way to do this is to redirect energies toward investments in professional judgment-in-action. As educators, we need to work toward establishing public recognition for the high standards, hard work, and ability to adopt and sustain best practices that most of the teaching profession embodies. Further, we need to look inward, examining our own practice and taking responsibility for what we have accomplished and what we have yet to accomplish.

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In this article, we discuss three prime arenas for professional judgment-in-action: accountability and assessment; governance; and school-site level democracy building. For each area, we review academic dialogues regarding what has occurred in these areas and suggest possible strategies that would further enhance opportunities for renegotiating relationships that foster trust, responsibility, and efficacy. We begin by stating four underlying assumptions that guide our argument and end with policy recommendations that could enhance relationships and allow for the complexity within schools today.

Underlying Assumptions

1. Less is more. Many reform initiatives are too cumbersome, unrealistic, and grandiose to possibly make a difference. Any good teacher could tell reformers before time, money, and energy has been expended that overly complicated changes will not work, but no one asks. Teachers understand how the educational system works. They know that plans need to be focused and adequate time must be allowed for constructing meaning out of what the changes suggest.
2. We need to build on our professional strengths. We need to begin developing reform efforts by building on educators' professional strengths, including: knowledge of teaching and learning processes; in-depth understandings of how schools really operate; and recognition of the demands placed on teachers' professional and personal lives by various reform efforts. We need to focus on building capacity for institutional decision-making beginning at the classroom level. Teachers and their professional organizations need to demonstrate their knowledge and skills in powerful and public ways. We need to educate the community at large about the important roles that educators can and do play. Further, we need to emphasize the competence of educators and their collective willingness to be involved.
3. Teachers offer a source of professional judgment that others cannot offer. Who knows more about assessing learning than those who do it on a day-to-day basis? Who knows better the importance of reasonable class sizes if students are to be offered individualized attention? Because of this, educators must take responsibility for enlightening other teachers, as well as the public, regarding which issues and methods are valid and reasonable, rather than proffering that right to others with less knowledge and motivations driven by issues other than enhanced teaching and learning. As educators, we need to stop being so damned agreeable every time a politician or reformer suggests a large-scale overhaul that we, as professional educators, know will not work. With each failed reform, the public becomes more jaded—and so do we. While we need to be responsive to reasonable reforms, we have the right and the responsibility to collectively say NO! to initiatives that cannot possibly succeed. However, rather than simply refusing, we need to offer insightful, professional arguments explaining why that reform would not be in the best interest of students and the public at large. We cannot afford to look defensive. Instead, we should be taking a proactive stance and suggest reforms that do make sense. We need to initiate a few well thought-out reforms that will make a visible difference in teaching and learning.
4. Governance structures should be redefined to promote relationships that build and enhance trust, responsibility, and efficacy. Governance structures must be reconstructed so that they embrace school site-level democracy building. This means a move away from conventional schools that operate through bureaucratic, fragmented, and disconnected means toward schools that are egalitarian,

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participatory, and connected both internally and externally. There is a move from teaching in isolation toward sharing power, authority, and decision-making about critical issues while recognizing our responsibility to be serving the community.

These four assumptions are grounded in our belief that for too long there has been an over-emphasis on external controls to education. We have allowed others to tell us what we know best, and, as educators, we have believed them when we were told that we did not have the right to question their thinking or to challenge their mandates. Educators have become isolated pariahs because the public does not know who we are, how hard we work, or how important we are. Rather than continually fighting the same battles over who should control our schools, we believe that the problems should be reframed. A new emphasis should be focused on fostering and enhancing professional capacity, and on getting the word out to others about this professionalism. Discussed in the next section of this article are three arenas that we think are prime starting places, selected because they encourage teachers to view themselves as competent, worthy professionals. Each of these arenas builds upon relationships that enhance trust, responsibility, and efficacy.

Accountability and Assessment

In direct contrast to the underlying assumptions that frame our thinking is the prevailing public attitude that teachers are not as professional as they should be. This attack on teacher professionalism has been reinforced by media sound bytes, opportunistic politicians, and misguided reformers. These attitudes have been created and reinforced by a multitude of players: textbook and standardized test publishers; policy makers who focus on mandating minimum standards and quick-fix reform strategies; administrators who have promoted top-down authoritative strategies to "manage" teachers; researchers who negate the expertise of teachers' lived classroom experiences; and others.[5] When considered along with comparably low salaries, poor working conditions, and devalued worth as recognized by the public, it is possible that many teachers or potential teachers have themselves begun to believe this prevalent rhetoric. When teachers feel disenfranchised and leave the field, it further fosters a negative public perception about public schools.

Negative public perceptions of teaching and the quality of education in general are exacerbated by competing views about the purposes of public education, and, therefore, how quality should be assessed. A major political struggle has emerged between those who see policy and governance issues as the means for instrumental outcomes as measured by standardized achievement test scores or cost-cutting and those who see education's potential for human emancipation.[6] When considering the economies of schooling, the focus for too many has been on dollars and cents, not on common sense. According to Taylor and colleagues, public school policies have traditionally had two main functions: identifying the desirable cultural norms for education; and instituting mechanisms of accountability for measuring student and teacher performance. They state, "[E]ducational policy has thus become a bureaucratic instrument with which to administer the expectations that the public has of education."[7] The voices of much of the public have been silenced, though. Only those voices representing the "suburban" values of consumption and the need for external control seem to be taken seriously. These same voices tend to be the ones with the most political clout.

Accountability and Assessment as Strategies for Claiming Professional Judgment

We must take the lead in letting others know that we have something worthwhile to offer, while at the same time helping to create spaces for the voices that traditionally have not been heard. Policies, and particularly the accountability measures that spring from them, reflect the economic, cultural, social, and philosophic values of those who create them. Therefore, it is essential that we expand the dialogue to include those who have not been represented, such as parents, members of the business community, and teachers. Forums must be created that encourage open discussions about the multiplicity of purposes for public education. We need to reconsider to whom we are really accountable and for what. Throughout this process, we must also ensure that those who will be held accountable for the implementation of processes and practices have ample input into the dialogues that frame them.[8]

Next, accountability must be redefined. We need to move from the current bureaucratic emphasis on following established procedures to a new, flatter organizational style that recognizes and values professional accountability.[9] Professional accountability emphasizes responsiveness to student needs while considering the realities of daily life for teachers. Asserting our professional judgment about assessment practices is a good place to begin.

Issues of assessment and accountability are of paramount importance to teacher professionalism and judgment-in-action. The accountability movement fostered by technocrats has done great damage to our schools and to the teaching profession. Over-emphasis on standardized, quantifiable results has refocused energies needed to systematically renew our schools and redirected those energies toward improving only what will be valued as criteria for success-standardized, quantifiable measures that tell little, if anything, about a student's ability to apply knowledge in real situations. These types of directives tend to de-professionalize teachers, emphasizing cookie cutter approaches that encourage teaching to the test.[10]

New methods of teacher-designed and teacher-directed assessment must be legitimized and valued. Teachers work with students day-in and day-out. As connoisseurs of teaching and learning, teachers know quality work when they see it.[11] Innovative reform efforts, such as the Annenberg Challenge, recognize the importance of context-specific initiatives and rely heavily on teacher expertise about teaching and learning. As part of the evaluation plans for the partnerships in the challenge sites, teachers have collected work samples from students representative of both challenging and typical assignments.[12] Teachers' professional judgment was recognized as valuable and necessary if reform efforts such as those initiated by the Annenberg Challenge were to become a reality.

Numerous other avenues can be taken to promote professional judgment-in-action regarding accountability and assessment. Teacher-initiated action research is a powerful means of encouraging professional judgment-in-action. By investigating their own teaching practices, teachers gain new insights and credibility. Involvement in action research, either individually or with multiple teachers, fosters a sense of self-efficacy– of knowing that what one does in the classroom really makes a difference. Other types of collaborative work, such as involvement in professional development schools or school-community partnerships, helps outsiders to see firsthand the high quality work that is being done in schools and offers validation to the teachers who are involved. There is nothing like knowing that you are

valued and appreciated for enhancing a sense of self-efficacy! Further, additional opportunities should be created for teachers to be involved in processes of accreditation, either as members of review teams or through involvement in the planning processes for their own schools. Having the opportunity to see what other teachers and schools are doing provides professional development opportunities as well as opportunities to offer meaningful constructive criticism to others. Who better to serve as critical friends than others who live daily with similar conditions?[13]

Having a voice in discussions about accountability processes and assessment measures is important. However, that alone will not support meaningful changes, such as modifying who has the power to determine which measures will be used and how they will be enacted.

Governance

A synergy is created when people work together toward a central purpose. Energy begets more energy. In our increasingly complex world, we can no longer afford the arrogance of leaders who think they can do it all by themselves. Listed below are a few examples of evolving structures and relationships that are intended to foster shared leadership and new forms of governance.

Hallinger and Richardson identified four models of shared leadership that encourage teacher empowerment and varying degrees of participation in decision-making: the Principal's Advisory Council; the Instructional Support Team; School Improvement Teams; and Leader Teacher Committees.[14] The first three models imply that teachers serve primarily in an advisory capacity and that no formal contractual negotiation is required. The fourth model, however, implies actual decision-making authority and necessitates formal contractual agreements.

The Principal's Advisory Council generally focuses on ways to improve the school climate through involving teacher representatives (or others) in decision-making processes. These representatives serve in a purely advisory capacity, unless the principal extends more authority to them.

The intended purpose of Instructional Support Teams is to encourage instructional improvement within a specific curricular area through teamwork. This model offers teachers an increased instructional leadership role within a defined curriculum domain. The primary responsibilities of teachers in this model include diagnosing and solving student problems, coordinating curriculum, and improving instruction. This model also has been referred to as a "community of learners" which implies a high level of professional interaction.[15]

School improvement teams usually work with the principal to lead improvement and development activities for the school, meeting regularly to make decisions about the direction of teaching and learning for the building. The principal plays an active role in this model, as in the other two models described above. Typically, administrators receive training in skills and procedures to enhance the effectiveness of school improvement teams. Emphasis is placed on goal setting, team work, feedback, and positive working relations between teachers and administrators. Although the decision-making authority of school improvement teams varies greatly, "teacher input and support is needed to bring about changes in policy and practices."[16] The school improvement team model is frequently associated with school-site management.

The last model discussed by Hallinger and Richardson is the Lead Teacher Committee.They state that this model "proposes the most radical change in the organizational structure of schools," although the model is limited to "prescriptive models in the literature."[17] The stated intent of the model is improvement of educational outcomes for students through the use of teachers' professional expertise. Another aspect of this model is the intent to widen accountability within the school site. An implication of this model that is different from those described above is the assumption that the school board has vested formal decision-making power to this group. According to Hallinger and Richardson, there has been contractual experimentation with the Lead Teacher model in Rochester, New York, where lead teachers were expected to teach 50 percent of the time and to provide instructional leadership the remainder of the time. Their role offered a "formal voice in policy making at the school site."[18] These four models offer a progression from advisory to collaborative process models.

The first three models discussed here– Principal's Advisory Councils, Instructional Support Teams, and School Improvement Teams– usually require no formal bargaining and focus on participatory decision-making. The last model, Lead Teacher Committees, does require formal negotiations. While the first three models are perhaps easier ways to begin, without establishing official rules and responsibilities use of these models will be at the mercy of the administration and policy makers. As administrators come and go, even past practice clauses may not be enough to retain the spirit of these models in practice. Formalizing processes, while time-consuming, offers greater guarantees of consistent practice and means for addressing concerns if the process breaks down. Even then, simply having structures and a process in place do not guarantee that there will be any substantial changes unless these teams are given the authority to make real decisions.[19]

Changing Roles, Rules, and Relationships

Koppich and Kerchner have suggested yet another model to foster teacher empowerment and develop new forms of school organization: The Educational Policy Trust Agreement.[20] The intent of this arrangement is to develop new patterns of teacher-administrator relationships while expanding the range of labor-management discussions about education. For example, within the six California school districts studied, there were at least five different foci for reform. These included: peer assistance and review; professional development; staff evaluation; a career development program for teacher aides; and the development of an interdisciplinary literature-based reading program at an elementary school. While these may not sound like unique endeavors, the processes used to formalize procedures for these were indeed unique.

Educational Policy Trust Agreements are collaborative efforts among teacher unions, school management, and the school board. Through a process of discussion and negotiation, a "negotiated compact" is developed that delineates: (a) the purpose of collaborative reform efforts; (b) the resources that will be provided, including money, time, personnel, and authority; (c) statements of structure and responsibility needed to accomplish the stated agenda; and (d) procedures for resolving disputes that might arise as the groups work together on the issue.[21] Implicit in the design of an Educational Policy Trust Agreement is the focus on collective work regarding educational policy. Koppich and Kerchner offer seven tentative conclusions about these agreements:

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1) Trust agreement discussions are substantially different from contract negotiations; 2) Strong union and district leadership are necessary components of trust agreement success; 3) Determining the policy area for trust agreement work is not nearly as thorny as developing a successful process through which agreements are reached; 4) The definition of a trust agreement is dependent on school district context; 5) Developing a network among participating districts is an essential element of the program; 6) Trust agreements may not be prerequisites to reform, but they serve as catalysts to speed change; and 7) Trust agreements produce role changes."[22]

It is encouraging to note that Koppich and Kerchner have found that trust agreements have fostered long-term, comprehensive changes in decision-making processes of the districts involved.[23] Additionally, the trust agreements have promoted collective responsibility for educational outcomes. This model appears to offer great promise.

Negotiating role changes, whether through educational policy trust agreements or lead teacher contracts, appears to be a key focus that unions need to tackle and researchers need to learn more about. Another way that educators have begun to work collaboratively and have arguably redefined roles is through the creation of Professional Development Schools (PDSs).[24] PDS work involves building and changing relationships among teachers, administrators, and university faculty. In this model, members of school systems, along side college and university faculty, develop partnerships designed to renew the educational enterprise.[25] Implicit within this model is a renegotiation of the roles that each member play, similar to other efforts aimed at rethinking educational systems at the K-12 and postsecondary levels, such as the National Education Association (NEA) Mastery Learning Project; the 21st Century Schools Project; Goodlad's Network for Educational Renewal; and the American Federation of Teachers (AFT) Professional Practice Schools.[26]

Typical roles of researcher, teacher, and administrator are redefined in a PDS organization. For example, school district faculty often serve as clinical faculty at universities, either teaching or team-teaching classes. Clinical teachers are able to bring a sense of urgency and authenticity to their work that some professors may not be able to offer. Another benefit is that the "partners" conduct research "on-site" as a collaborative process. This, too, leads to increased professionalism on the part of public school teachers, administrators, and college and university professors. The recognition that all entities must work together to redefine educational systems at all levels is indicative of a larger movement toward developing sustainable and mutually beneficial reform processes. PDSs simultaneously help to create new organizations and to refocus those that already exist. In this way, one purpose of a PDS is to redefine how K-12 schools and universities are governed.[27]

Hansen and Liftin remind us of three types of governance models: representational; at-large; and functional.[28] Although they suggest these types of models in terms of site-based decision-making, they also may sense as a means of redefining other types of governing boards. Representational models include groups that have been elected by peers. At-large models also select members through elections, although these elections are not constrained by geographic or role concerns. Functional models include members, usually elected, who satisfy functional or expert roles needed for the task at hand. Perhaps functional models should be utilized more frequently to address specific concerns about education. Rather than having one governing body that handles everything, multiple work teams might be organized by function. To make a real difference, these work teams would need to have the authority to enact changes. In this case, it would make sense that teachers, in their roles as teaching-learning experts, would take their place at the table.

Rather than focusing only on changing roles for teachers, though, consideration should be given to how other educators' roles might be modified as well. If teachers are to take on more responsibilities, it would make sense that this would then allow others to redefine their professional identities. For example, what would happen if administrators were to teach at least one class? Would this allow them to join the "ranks" of teachers? Would it help to establish mutual trust and respect? Would it help administrators to better keep in touch with what is occurring in the classrooms? Perhaps unions should break new ground and offer incentive grants to administrators willing to experiment with new forms of governance. Rather than outside funding agencies or the district offering incentive grants to teachers, perhaps teacher unions should take the lead, reinforcing their role as professionals by offering incentive grants to administrators. Changing roles, rules, and responsibilities means breaking free from the mental models that have constrained our thinking.[29] Each of the ideas discussed above focus on changing the roles of teachers and administrators. However, it is essential that we broaden the focus of reform efforts so that they are more inclusive. One way to do this is to involve stakeholders who in the past typically have not been welcome at decision-making tables.

School-site Level Democracy Building

What is the purpose of education? What do we stand for? What drives our practice? These are important questions that need to be contemplated for they lie at the root of varying reform agendas. Is the primary purpose of school to prepare a literate work force, or is it to prepare young people to accept their civic responsibilities in a democracy? Who should control our schools, for what reasons, and under what circumstances? These questions raise issues about the public good, individual rights, and who knows best. These questions are of paramount importance in understanding issues of policy and governance; yet rarely are they debated in mainstream educational conversations. We believe that all stakeholders should have opportunities to be involved in meaningful ways in determining the content, standards, and processes for their schools. This implies that school boards must become more inclusive and flexible, utilizing work teams similar to those discussed by Hansen and Liftin[30] and Koppich and Kerchner.[31]

Currently several movements are afoot that challenge traditional assumptions about who should control our schools: charter schools; deregulation movements; privatization movements; and school-site councils. Each raises questions about the appropriate roles and composition of school boards. Issues of representation must also be addressed and discussed. Within these dialogues, space needs to be created to address issues pertaining to representation and inclusion—creating spaces for multiple voices versus negotiating space for a voice. Additionally, other concerns include financial constraints, public perceptions, notions of volunteerism versus legitimized job roles, and, finally, incentives and rewards. Each of these areas should be addressed in inclusive forums.

Controversial Reform Initiatives

Charter schools have become a rallying cry for many seemingly oppositional groups. Charter schools offer the possibility of creating

new organizations that are designed by and responsive to the needs of the teachers, administrators, parents, and others. They are often viewed as a means of by-passing restrictive and prescriptive policies and practices that have limited reform efforts aimed at creating productive learning environments for students and teachers. Each school must develop its own "charter" that specifies how the school will be governed and who will govern it in addition to the delineation of new procedures and practices for the school. Many charter schools have been organized around particular themes, such as arts education or mathematics and science. Some charter schools have long waiting lists for admission. Concerns arise, though, over underlying reasons for the organization of some charter schools. Who has access to these schools? Are they a means of legalized segregation? Are they offering educational opportunities for only the elite at taxpayer expense? Are charter schools an off-shoot of a particular political group or business? Are they developed for the sole purpose of union busting? As with all of the options discussed in this section, huge ethical dilemmas exist that must be identified and openly discussed.

Hand-in-hand with the charter school movement came deregulation initiatives. A stated intent of deregulation is to remove the organizational, cultural, and structural barriers that prohibit educational reform efforts. Deregulation initiatives generally must receive the blessing of school boards and the state. Additionally, if the intent is to by-pass state or federal regulations, then waivers usually must be sought. Furhman and Elmore, as cited in Hodge, suggested that districts and schools must meet one or more of the following criteria before they are granted waivers: (a) Attain high achievement and become deregulated as a reward; (b) Be selected through a competitive process; and (c) Complete a detailed change plan/ application process.[32] It seems paradoxical that an initiative designed to lessen restrictions on school reform itself has placed multiple restrictions on schools that might wish to be involved. Several states, including Florida, South Carolina, Texas, and Washington, have adopted deregulatory policies intended to foster a shift from mandates to site-based decision-making, although the jury is still out on the effectiveness of deregulation initiatives.

At first, privatization of public schools appeared to be a booming wave of educational reform. Some privatization efforts, such as one in Wilkinsburg, Pennsylvania, offered teachers "ownership" in the company managing the school.[33] This particular case was especially interesting because it represented the first time that a private company had hired its own faculty rather than retaining the services of faculty already employed by the district.[34] When Alternative Public Schools, the company hired to run one of the elementary schools in the district, took the reins, teachers in the district had been without a contract for several years. As a result, the district became embroiled in a bitter battle with the teachers' union, amid charges of union busting and claims by some that teachers were unwilling or unable to educate the students in that district.[35] This is a very complicated case, but the point to be made here is that unless we, as educators, take the lead in educational reform, others will step in and do it for us. Educators need to take the initiative to become more professional and to let others know that they have done so.

Strengthen Teaching and Professionalism of Teachers

Urbanski suggested a number of ways to strengthen teaching, and as such, the professionalism of teachers.[36] Each of these implies actions that we can begin to take. First, he suggested that there be a shared knowledge base. As educators, we have a responsibility to add practice-based knowledge to the field. Second, he suggested that teachers be involved in setting "high and rigorous standards for their profession" that are enforced through peer review.[37] Third, there must be high-quality preparation programs that blend theory and practice. Currently, this is primarily the province of colleges and universities; however, there are a number of ways that teachers can influence what and how prospective teachers are taught. The Professional Development School is an excellent example of what can be done. Fourth, new teachers should receive ongoing support and nurturing from more experienced teachers. Informal mentoring, opportunities to dialogue with more experienced faculty, and increased access to teaching materials are all ways to provide this support. Fifth, there should be opportunities for ongoing and meaningful professional development. Rather than one-shot workshops, the focus of professional development should be "inseparable from the day-to-day work that teachers do."[38] Sixth, there should be expanded career opportunities for teachers so that they don't have to leave teaching in order to be promoted. Seventh, the conditions of teaching– compensation, professional treatment, adequate resources– should be improved. Eighth, teachers should have a say "about what to teach, how to teach it, and how to assess student learning."[39] Finally, the "current emphasis on bureaucratic accountability (following established procedures) must be replaced with a new emphasis on professional accountability."[40] This system of accountability must be framed by responsiveness to student needs while considering the realities that teachers encounter on a daily basis. Emphasizing teachers' professional judgment-in-action through accountability and assessment, new forms of governance, and promotion of practices that encourage site-based democracy building are good places to begin. Each practice mentioned offers a high profile opportunity to draw attention to the prevalent professionalism of teachers. Further, teacher involvement within each of these three arenas helps to establish that these areas should be the province of educators.

Implications

We have discussed three major areas of professional judgment-in-action: accountability and assessment; governance; and school-site level democracy building. As professionals accountable for student learning, teachers make decisions on a daily basis concerning what is taught and how it is taught. Decision-making is a continuous and crucial part of teaching. Even though teachers are held accountable for student learning, they often must comply with decisions made by those who have no real contact with students. Boards of education, in conjunction with state and national legislatures, set rules and regulations for schools, teaching, and the assessment of learning. As professionals, teachers must be given the opportunity to blend their voices with those of other education stakeholders. Educators add unique insights that no other stakeholder can offer. However, teachers are busy people and cannot add more to their overfilled schedules without giving up something else. Educational organizations need to critically consider the changing priorities for roles that educators should play in the day-to-day running of public schools.

We take the position that teachers, as front-line professionals, have a right to be included in meaningful ways in the governance of schools. Opportunities should be created to increase teacher control over classroom level decisions that affect student learning as well as systemic issues. To better prepare teachers for these new roles and opportunities, attention must be paid to developing the skills needed to work as

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part of a democratic, collaborative body. Providing for increased teacher participation in school governance has budgetary implications. Often, work teams fall apart due to misunderstanding or misuse of group dynamics. Money must be set aside for professional development to prepare teachers for their increased participation. Although some of this professional development should be conducted through ongoing reflective practice and action research, opportunities to learn how to communicate more effectively, build consensus, and handle conflict must first be available.

It is important to voice a note of caution here. If we are to redefine what it means to exercise professional judgment-in-action, then attention must be paid to the working conditions of teachers. Unions traditionally have, and should continue to, play a key role in helping to reshape the terms, responsibilities, and working conditions for teachers. Part of this process must continue to include negotiations about issues of security– both professional and financial– as well as ways to promote, preserve, and protect the professional judgment-in-action of teachers. However, as economic conditions worsen, unions should seek ways to collaborate with rather than compete against other social and educational institutions who are also vying for funding.

Recommendations

Through encouraging relationships that foster teacher trust, responsibility, and efficacy, we are investing in the future of our children. Teachers are ultimately responsible for student learning; thus, teachers' professional judgment about schools and classrooms is an essential component of change initiatives. Without teachers we cannot implement change– they are the ones that enact change in the classroom. Although teachers have spent years learning their profession, there is no room for arrogance. We must trust and respect their professional opinions and judgments as teachers must trust other stakeholders and value their input. Otherwise we all lose.

In light of the essential role that teachers play in educating our children, it is important for unions, administrators, and policy makers to work together to ensure that their voices are integrated into school governance and decision-making. Rather than being merely the implementers or consumers of educational policy, educators must step up to the plate by negotiating ways to increase levels of trust, responsibility, and teacher efficacy. For too long educators have focused on the hopelessness of influencing bureaucratic structures. It is time to stop trying to beat the system and instead begin to recreate the system. Toward this end, we have outlined the following policy recommendations that emphasize simultaneous action at the local, state, and national levels.

1. Teachers must help others to redefine what it means to be a professional and a member of a teacher's union. For example, rather than create scenarios that foster competition between unions and administrators and school boards, efforts must be made to reframe dialogues about turf issues and resources so that they foster reflection-in-action.[41] Rather than reinforce perspectives that negotiations must have winners and losers, union leaders can help all parties to understand ways to create win-win scenarios. We need to move beyond coercion and compliance to cooperation.

2. Cooperative contract negotiations alone will not change public perspectives about education. Teachers must take the lead in learning how to work collaboratively with others. Before we can accomplish reform goals, a truce must be called. We must stop blaming others and start looking more carefully at our own practices. Rather than focusing on what others are not doing, there must be opportunities for dialogues so that we may hear others' expectations of the teaching profession, while having the opportunity to express our expectations of others. Unions should take the lead in creating forums for these types of dialogues.

3. Union leaders must take the lead in conducting a public relations campaign informing the public of the professionalism of teachers and the win-win situations that have been achieved. The public must be helped to learn about the new unionism. Rather than public perceptions about unions that emphasize strikes and refusal to cooperate, new mindsets must be created in stakeholders. The public has a need and a right to know about the many initiatives undertaken by unions that are designed to enhance the quality of education.

4. As new roles, relationships, and responsibilities are created, we need to remain mindful of the need for creating self-correcting systems. Our world has become so complex, that what works one week may not work the next. Therefore, national, state, and local policy makers must incorporate flexibility into rules and regulations that allow for site-level input and decision-making that reflect local values and learning needs.

5. Teachers should be included on boards that oversee curriculum development, standard setting, assessment, professional development, and other areas that directly affect teaching and learning. Unions, in working with schools, must promote practices and structures that facilitate teacher involvement in school governance and decision-making. Emphasizing the need for more functional boards that specifically require membership of those with expertise in the areas being addressed may be an appropriate way to progress.[42] Policy work could then be delegated to multiple work teams whose purpose and membership have been established by function. Additionally, unions must take a leadership role in working with administrators to redefine teacher and administrator roles within school governance structures.

6. Administrators must provide opportunities for teachers to showcase their involvement in and accomplishments related to educational reform and student learning. These opportunities should be both within and beyond the school setting. For example, administrators might schedule time during the annual school open house for teachers to showcase their activities around school reform. Further, administrators could invite local media representatives to attend these presentations in order to publicize teachers' efforts to the community at-large.

7. Administrators and policy makers must support change initiatives that involve increasing teacher decision-making power. Support not only allows for risk-taking without reprisal, but also provides financial resources for teachers to be released and compensated for participation in governance, research, and design of learning and assessment tools.

Changing roles, rules, and relationships will not happen automatically. It will necessitate hard work on the part of many. It is important to note:

> Empowerment is not a simple process nor one that can be accomplished overnight. Empowerment requires that principals, teachers, staff members, and parents all have mature judgment and the desire to make the school a learning place for all students."[43]

The same is true for policy makers. Meaningful change is most likely to occur at local site levels, rather than through state or federally

mandated policies.[44] However, this is not meant to imply that large-scale initiatives are not needed. Reform initiatives focused on increasing the meaningful opportunities for teachers to not only implement but determine what should transpire will require that all groups work together.

Rather than continuing the counter-productive deficit approach to "fixing" schools that many policy makers and politicians have pursued, we believe a systemic approach to validating the involvement of all stakeholders is needed. This means creating a new vision of what schools should be, how they should run, and who should run them. This also means negotiating policies to protect teachers' professional judgment-in-action by fostering increased trust, responsibility, and efficacy. If meaningful school reform that recognizes the valuable contributions educators make is to occur, then teachers' unions will need to challenge the status quo. We can no longer allow, or wait for, those who are satisfied with the present system to take the lead.

Endnotes

1. Funding for this research was provided in part by the National Education Association. The views expressed are those of the authors and do not necessarily represent those of the National Education Association. A version of this paper was presented at the Annual Conference of the American Educational Finance Association, Seattle, Washington. March 1999.

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