



ENSURING ALL CHILDREN THE OPPORTUNITY FOR AN ADEQUATE EDUCATION: A COSTING-OUT PRIMER

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An education adequacy costing-out study determines the amount of money actually needed to make available all of the educational services required to provide every child an opportunity to meet the applicable state education standards. A variety of approaches for undertaking such studies have been used in recent years in many states, including Illinois, Kentucky, Ohio, Oregon, Maryland, New Hampshire, Wisconsin, and Wyoming in some cases as part of the development of a new funding system ordered by a state court. This policy brief describes briefly the concept of costing out and offers an overview of the three methodologies commonly used for this purpose.

Historical Background

Historically, most state education finance systems have purported to establish, as their basic building block, a foundation amount that presumably would guarantee sufficient funding for each child to obtain an adequate education. These foundation programs required local school districts to levy taxes at a rate aimed at generating enough revenue to fund a basic education, with the state supplementing the amount actually raised by poor districts when their tax base did not yield the predetermined foundation level.¹

From the beginning, however, no real methodology was used to determine what the foundation amount should be. Instead legislatures tended to establish the foundation based on the amount of funding they were willing to allocate for educational services with little regard for actual needs. Moreover, the foundation amounts that were established eroded dramatically over time because of budget pressures, competing political priorities, and inflation. For example, in New York State the current foundation amount is about \$4,000 per-pupil, even though the average expenditure is \$11,040 per-pupil and districts 10% from the bottom are spending approximately \$8,940 per-pupil.²

Costing Out Methods

The significance of the costing-out approach is that it determines a true foundation amount by identifying the specific resources and conditions necessary to provide all children a reasonable educational opportunity and then systematically calculates the amounts necessary to fund each of these prerequisites. Although a variety of specific methodologies have been devised in the two dozen or so states that have already pursued a cost-based analysis, these approaches tend to fall into three main categories: successful schools; professional judgment; and effective strategies.³

The Successful Schools Method. The successful schools approach, also known as the empirical approach, seeks to identify those schools or school districts that have actually achieved a specified level of student performance, such as meeting state standards. The average actual level of expenditures in these schools or districts is then used to estimate the level of expenditure that would be required to achieve a similar level of student performance in other districts throughout the state. Typically, differences in cost of living and in the numbers of students with extraordinary needs are also taken into account in these calculations.

The successful schools approach is best illustrated by a system devised by a panel in Ohio in response to the initial trial court order in *DeRolph v. State*.⁴ In its first iteration, the Ohio methodology chose its sample of successful school districts by reference to six specific measures of student achievement, and eight input measures such as pupil teacher ratio and average class size.⁵ Another example of the empirical methodology is the approach used in a report prepared for the New Hampshire Adequate Education Costs and Municipal Grant Distribution Commission. It offered four alternative ways of identifying well-performing districts based on various combinations of input and output factors. One of these alternatives uses efficiency factors that eliminate from the pool of model school districts those which provide services beyond a specified maximum level.⁶ An inverse variation is the model proposed by the Council of Great City School Districts that bases the adequacy amount on the total per-pupil expenditures of the 10% highest achieving districts in the state.⁷

The Professional Judgment Method. The professional judgment approach accepts as its premise that the determination of an adequate cost basis will involve a large number of judgments; it seeks to establish a process that will comprehensively review the range of judgmental factors involved and ensure that those judgments are made openly, fairly, and independently. Typically this is done by assembling panels of educators to identify the specific instructional components deemed necessary to meet state standards and then having economists determine the price of each of the identified components.

The professional judgment approach was first developed by Jay Chambers and Thomas Parrish for the states of Illinois and Alaska in the early 80s in order to develop cost-based adjustments to the education funding allocations school districts received from the state.⁸ Its most well known recent application was the model utilized by James Guthrie and Richard Rothstein in Wyoming, in response to the court order in *Campbell v. State*.⁹ The Wyoming model involved extensive meetings of groups of local Wyoming educators and, then, of educators from surrounding states who were asked to identify all of the specific components of an instructional system that could deliver an adequate education. Once the expert panels had identified such a basket of education goods and services, economists determined the cost of obtaining those good and services for Wyoming school districts through a series of market pricing analyses.¹⁰

Professional judgment was also the methodology used by the Oregon Council on the Oregon Quality Education Model (QEM) in constructing its funding model. There, the Council, a 23-person body of legislators, educators, business leaders, advocates, and other community representatives, appointed an expert staff and four separate subject-area work groups who devised prototype elementary, middle, and high schools. For each prototype the Council set forth a detailed list of program elements, such as core staff, program staff, additional instructional time for students to achieve standards, and district administrative overhead. Tangible assumptions having a direct relation to cost, such as class size, age of building, and numbers of computers per pupil were then determined and specific cost assumptions for each prototype school calculated.¹¹

In Maryland, costing-out studies were performed using both the successful schools and professional judgment methodologies. The empirical study relied on costs in 59 successful schools identified by the state's department of education and the professional judgment studies used panels of experienced educators. The Maryland Commission on Education Finance, Equity, and Excellence (Thornton Commission) reviewed these studies and included results from both methodologies in formulating its recommendations to the legislature to restructure the state's school finance system and increase annual state funding by \$1.1 billion.¹² Despite difficult economic times, the legislature acceded to the Commission's proposals in April 2002, and the funding increases are scheduled to be phased in over six years.

The Effective Strategies Method. The effective school-wide strategies approach, also known as the expert judgment approach, draws on the latest educational research to identify a set of specific educational programs and strategies deemed effective. It is important in this approach to ensure that each school design includes all necessary program elements, such as strategies for struggling students and sufficient professional development, and that the level of service for each element is standardized across the selected designs. Experts perform these steps, determine the necessary components to support the strategies, such as staffing

needs, and calculate the price of each component. This approach intends to provide sufficient funding to enable each school to choose from among a number of effective strategies or programs.

The effective strategies method used recently in Kentucky¹³ relied on research results to identify high quality preschool and full-day kindergarten as pivotal programs for low-income students and to designate certain school and class sizes, instructional facilitators, and professional development as some of the strategies that should be funded for each school.

Updated July 2003

1. The idea of the foundation program originated with a proposal to a New York State Educational Finance Inquiry Commission. George D. Strayer and Robert M. Haig, Financing of Education in the State of New York 173-74 (1923). See also, James W. Guthrie, Walter I. Garms and Lawrence C. Pierce, School Finances and Education Policy: Enhancing Educational Efficiency, Equality and Choice 133-137 (2d ed.1988).

2. The State Education Department, New York: The State of Learning, A Report to The Governor and the Legislature on the Educational Status of the State 's Schools (2002). Figures are for 1999-2000, the latest audited school year reported by SED.

3. A fourth approach is a [Statistical Modeling](#) methodology that attempts to determine through analyses of performance measures and cost indices how much a given school district would need to spend, relative to the average district, to obtain any given performance target. See, e.g., William D. Duncombe and John M. Yinger, Performance Standards and Educational Cost Indexes: You Can ' t Have One Without the Other, in Equity and Adequacy in Education Finance: Issues and Perspectives (Helen F. Ladd, Rosemary Chalk and Janet S. Hansen, editors, 1999); Andrew Reschovsky and Jennifer Imazeki, Achieving Educational Adequacy Through School Finance Reform (CPRE Research Report, Oct. 2000). Because these models are based on a variety of theoretical assumptions that have not actually been implemented in any state, a detailed account of this methodology has not been included in the text.

4. No. 22043 (C.P Ohio Perry County July 1, 1994).

5. See Kern Alexander et al., Proposals for the Elimination of Wealth-Based Disparities in Public Education, Report to the Ohio Legislature (July, 1995). A subsequent iteration of this model prepared for the legislature two years later, eliminated the input variables and changed the achievement standard from a norm-referenced a criterion-referenced measure (based on the percent of students achieving minimum competency levels). See 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 (1997).

6. John Augenblick, John Myers and Justin Silverstein, Alternative Approaches for Determining a Base Figure and Pupil-Weighted Adjustments for Use In a School Finance System in New Hampshire (1998).

7. See, e.g., Council of Large City School Districts, Adequate State Financing of Urban Schools: An Analysis of State Funding of the Buffalo Public Schools (1999).

8. See Jay Chambers and Thomas Parrish, State Level Education Finance in Advances in Educational

Productivity: Cost Analysis for Education Decision: Methods and Examples (W. Steven Barnett, ed., 1994).

9. 907 P.2d 1238 (Wyo. 1995).

10. The complex methodology actually used to carry out these tasks is summarized by James W. Guthrie and Richard Rothstein, in *Enabling Adequacy to Achieve Reality: Translating Adequacy into State School Finance Distribution Arrangements*, 225-226 in *Equity and Adequacy*, *supra*, note 5. A related approach is the model utilized in the State of Washington to cost out a basic education in response to the Court Order in *Seattle School District No. 1 v. State*, 585 P.2d 71 (Wash. 1978). The legislature, using the average statewide cost of educating the normal range ability student as its standard, defined the costs of a basic education by reference to ratios of teachers and other employees per 1,000 students, in accordance with a state salary scale, plus additional compensation for non-employee-related costs such as books, supplies and utilities. See Diane W. Cipollone, *Defining a Basic Education: Equity and Adequacy Litigation in the State of Washington* (CFE Studies in Judicial Remedies and Public Engagement 1998).

11. Legislative Council on the Oregon Quality Education Model, *The Oregon Quality Education Model: Relating Funding and Performance* (June 1999).

12. Maryland Commission on Education Finance, Equity, and Excellence, *Final Report* (January 2002).

13. Lawrence O. Picus, Allan Odden, and Mark Fermanich, *A State-of-the-Art Approach to School Finance Adequacy in Kentucky* (2003).