



The Education Policy and Leadership Center

Education Policy Report

Costing-Out Studies Across the Nation

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❖ Introduction ❖

Ever since the states began adopting academic standards in the early 1990s, the focus of school finance reform has shifted from **equity** – reducing disparities in per pupil spending between high- and low-wealth school districts – to **adequacy** – assuring all students have the resources needed to achieve the state’s standards. This focus on adequacy is not simply a focus on dollars. Rather, at least two separate but related questions need to be addressed:¹

1. What resources and conditions are required for students to meet the state’s learning standards?
2. How much funding is required to provide those resources?

“States and education advocacy organizations have increasingly turned to ‘costing-out studies’ to obtain rationally based, objective information on how to fund public education so that all students have a genuine opportunity to meet the learning standards.” The first such study was commissioned by the Massachusetts Business Alliance in 1991. Since then, over 50 studies have been conducted in 38 states.²

❖ Sources of Costing-Out Studies ❖

Some of the costing-out studies have been ordered by courts in order to help resolve school finance litigation (such as in New York, Arkansas, and Wyoming). Others have been requested by state legislatures, commissions, legislative research organizations, or state education agencies (such as in California, Maryland, Rhode Island, and Vermont). Still others have been requested by private advocacy organizations (such as in Colorado, Missouri, and the initial study in Massachusetts).³

Pennsylvania’s costing-out study, which will be released November 14, 2007, was initiated by an act of the General Assembly adopted in July 2006. Act 114 of 2006 required the State Board of Education to contract for a costing-out study to determine the “cost per pupil to provide an education that will permit a student to meet the State’s academic standards and assessments.”⁴

To some degree, all the initiators of costing-out studies are motivated both by a desire to assure all students have an opportunity to meet state standards and by concerns about the economic and social costs associated with students who are not successful. For example:⁵

- Every high school dropout in the nation will earn \$260,000 less over his or her career – or a total of \$158 billion for each year’s dropouts.
- These same dropouts will pay \$36 billion less in taxes over their lifetimes.
- The yield from individual income taxes would increase about five percent – or \$50 billion a year – if the nation’s dropouts had completed high school.

- If each dropout were educated for one additional year, the savings in health related spending would be \$41.8 billion, and murder and assault rates would decrease almost 30 percent.

❖ Costing-Out Study Approaches ❖

Even before states started to adopt academic standards, there were some efforts to shift the focus of education finance reform from equity to adequacy. These efforts arose as states began to underfund school finance formulas that were designed to assure all students had enough resources for a minimum education program. In the early 1980s, Jay Chambers and Tom Parrish conducted two pioneering studies for Alaska and Illinois to “develop a basis for providing cost-based adjustments to the education funding allocations school districts received from the state.”⁶ They developed a “Resource Cost Model” (RCM) to determine the specific resources needed to guarantee students adequate educational opportunities.

State standards really gave school finance researchers their first useful outcome measures on which to base the costs of meeting established educational goals.⁷ Costing-out studies generally use one or a combination of the following methods:⁸

1. The professional judgment approach has been the predominant approach used by researchers in recent years. It uses panels of education practitioners to identify the resources needed at school and district levels to assure that students have the opportunity to achieve the state standards. Once the basic resources are determined, the panels make adjustments to account for the needs of students with disabilities, English language learners, and low-income children. The professional judgment approach was developed by James Guthrie and Richard Rothstein⁹ in order to respond to a decision of the Wyoming Supreme Court.¹⁰ This approach has been used in studies in at least 19 states.
2. The second most commonly used approach is the successful school district approach developed by John Augenblick and John Myers, which bases the costs of an adequate education on the actual spending of schools and districts that are achieving the standards established for all schools in the state. Most recent studies have also included the additional costs associated with increasing the achievement of low-income students, those with disabilities, and English language learners.¹¹ This approach has been used in at least 11 states and also was developed initially in response to a court order.¹²
3. Expert judgment or evidence-based studies use research on effective educational programs and practices and the costs of implementing them to determine appropriate levels of spending. This method has been used in studies in Arkansas and in several other states in combination with other methods.
4. Cost function studies apply econometric models to determine the amount of spending needed to achieve a specified degree of student achievement growth. These studies

are difficult to conduct because they require large amounts of detailed data (often beyond what states collect) and are difficult to explain to policymakers and the public. They were used, however, in at least one recent court case in Texas.

Increasingly, studies have used a combination of two or more of these methodologies, and this generally has resulted in more sophisticated analyses.¹³ The costing-out study currently being conducted in Pennsylvania uses all four methodologies.

❖ Results of Costing-Out Studies ❖

The results of costing-out studies have varied widely. This variability seems to result from several factors, including the state's standard for which adequate funding is being determined. If the state's policy is that 100 percent of students will be proficient in the state's academic standards, determining the cost of some lesser achievement target establishes an immediate disconnect between the state's academic expectations and its school finance approach. But determining the cost of 100 percent proficiency is difficult, since no state actually has achieved this. In some cases, the standard has been set so low (e.g., 55 percent in a study for the state defendant in a Texas lawsuit) that the reports have not been useful. In fact, courts that have ordered costing-out studies have rejected the findings in about half of them.¹⁴

The Texas case also exemplifies another source of variability – the degree of political interference with the costing-out study, which is supposed to be an independent, rational, and objective undertaking. In Texas, the researchers altered their findings at the request of legislative leaders to avoid producing a cost they thought would be unacceptable to the legislature.¹⁵ It is not surprising that studies undertaken directly by legislative or state agency staff tend to be less sophisticated and to recommend lesser spending increases than those undertaken by independent experts.¹⁶

A third source of variability is the way different studies approach the additional needs of certain populations of students, such as those in low-income families, English language learners, and those with disabilities. This is especially problematic in studies that do not use a professional judgment component.¹⁷

For the most part, costing-out studies have recommended significant increases in state and local spending – on the order of 20-40 percent, with a median of 30.2 percent – in order to provide an adequate education.¹⁸ Rebell notes that “this should not be surprising, since the predominant thrust of the studies is to determine an appropriate level of resources to meet the challenging achievement expectations for *all* students that have been established by new state standards and federal NCLB requirements.”¹⁹

In some cases, courts and state legislatures have essentially accepted the recommendations of costing-out studies, and in others they have incorporated modified versions of study findings into reforms of their school finance systems. In some states, costing-out recommendations have been ignored for years, and in others reports have been delivered recently enough that their future impact is difficult to predict.²⁰

Summaries of costing-out studies in a representative sample of states follow.²¹

Maryland: During a pending court challenge to the state's school finance system, Maryland appointed a bipartisan 27-member Commission on Education Finance, Equity, and Excellence (the Thornton Commission) in late 1999.²² The Commission contracted with Augenblick and Myers for a costing-out study that used both professional judgment and successful schools methodologies.²³ At the same time, a citizen's advocacy group, the New Maryland Education Coalition, contracted with Management Analysis and Planning for a study using only the professional judgment approach.²⁴ Both studies were considered by the Thornton Commission. In April 2002, the state legislature accepted the recommendations of the Thornton Commission and, building upon the two costing-out studies, agreed to phase-in a new state funding system over six years. The effect is to increase state aid when fully implemented by \$1.3 billion annually and to increase the state share of education spending from 41 to 49 percent.²⁵

Wyoming: This is the state that pioneered the use of the professional judgment approach. In response to a court order, the state contracted with Management Analysis and Planning (MAP), which issued its costing-out study report in 1997, recommending a new funding method in which funds would be distributed to school districts as a block grant based upon the needs determined by professional judgment panels.²⁶ This approach has been used by the state during the past decade, with occasional modifications recommended in follow-up studies by MAP and by Picus and Associates,²⁷ and has passed muster with the state courts.²⁸

Montana: The state legislature decided in May 2007 to increase education spending by \$140 million over two years, partially in response to a January 2007 costing-out study²⁹ conducted by Augenblick, Palaich and Associates at the behest of the nonprofit Montana Quality Education Coalition. The study combined evidence-based, professional judgment, and successful schools approaches and recommended a spending increase of \$725 million or 64 percent.

Mississippi: The state legislature in the early 1990's empowered the Task Force on Restructuring the Minimum Education Program to contract for research on ways to restructure the state's 40-year-old school finance system. The Task Force contracted with Augenblick, Van de Water and Myers, which used a successful school district approach. The consultants recommended a three-tier funding system: tier 1 would include a base cost plus adjustments for high-need students and would be funded primarily by the state; tier 2 would be a "reward for effort" in which state revenues would guarantee the same revenue yield to all districts making the same tax effort; and tier 3 would be revenue raised locally above the first two tiers.³⁰ The report recommended an increase in total education spending of about 10 percent and an increase in state aid to school districts of nearly 17 percent. The legislature adopted these proposals in 1994 and funded them in 1997.

Arkansas: The Arkansas Joint Legislative Committee on Education Adequacy was formed in response to a 2002 state Supreme Court ruling that the finance system was unconstitutional on both equity and adequacy grounds.³¹ The joint committee contracted with

Lawrence O. Picus and associates to perform a costing-out study using an evidence-based approach, augmented by two professional judgment panels to review the evidence-based findings and a synthesis of professional judgment studies in five other states. The report recommended an increase in school funding of \$848 million or 34 percent.³² Early in 2004, the legislature revised the school funding formula based largely on the costing-out study, increased funding for teacher salaries and pre-K, and increased the state sales tax.

Washington: The costing-out study presented in January 2007 uses a complex mix of successful schools, professional judgment, cost function, and evidence-based methods as well as a wage adjustment analysis. The study, conducted by the Educational Policy Improvement Center at the University of Oregon, recommended increased spending of \$3.45 billion or 45 percent.³³ There has been no legislative action on the report as of this writing.

Missouri: In 2003, Augenblick and Silverstein conducted a costing-out study for the Missouri Education Coalition for Adequacy using a combination of successful schools and professional judgment methodologies. The study recommended an increase in spending of \$913 million (about 16 percent).³⁴ The legislature revised the school funding system in 2005, drawing upon the study to some degree, and since then, state funding of the formula has increased about \$270 million. A circuit court judge ruled in August 2007 that the state Constitution does not require any specific “adequacy funding” above the Constitutional requirement that at least 25 percent of state revenues be devoted to K-12 education.

Colorado: The state never released a 2003 costing-out study conducted by Augenblick, Palaich and Associates, but a 2006 update prepared for the nonprofit Colorado School Finance Project indicated a need to increase overall spending by \$2.1 billion or 39 percent. The study combined successful schools, professional judgment, and evidence-based methodologies.³⁵ There has been no legislative action on the report as of this writing.

Connecticut: The Connecticut Coalition for Justice in Education Funding contracted with Augenblick, Palaich and Associates to conduct a costing-out study that used both successful schools and professional judgment methodologies and that reported separate results for the two approaches. The consultants reported in 2005 that Connecticut should spend an additional \$2.02 billion (or 31 percent) under the professional judgment approach or an additional \$462 million (or 7 percent) under the successful schools method.³⁶ There has been no legislative action on the report as of this writing.

California: Two separate costing-out studies were conducted in California as part of the 1,700-page *Getting Down to Facts* publication of the Institute for Research on Education Policy and Practice at Stanford University. The project was undertaken at the request of the Governor’s Committee on Education Excellence. Jay Chambers, Jesse Levin, and Danielle DeLancey of the American Institutes for Research used a professional judgment approach, and the two panels’ results ranged from required spending increases of \$24.1 billion (or 53 percent) to \$32 billion (or 71 percent).³⁷ The second report was prepared by Jon Sonstelie and his colleagues at the Public Policy Institute of California. The study used a modified professional judgment approach, in which 568 educators worked independently (rather than on panels as is normally the case) to determine the resource needs of hypothetical schools. The study found that California would

need to increase total spending by \$17 billion or 40 percent.³⁸ There has been no legislative action on either of the reports as of this writing.

Virtually none of the adequacy studies considers capital costs, student transportation, school lunch programs, or adult education.

❖ The Role of Legislatures ❖

In those cases in which costing-out studies have played a role in school finance reforms, state legislatures have enacted the reforms. Sometimes they have done so as a result of court directives (e.g., Arkansas); sometimes with the potential for court action looming over them (e.g., Maryland); and sometimes of their own volition (e.g., Mississippi).

Despite the fact that plaintiffs have been more successful in adequacy lawsuits than they have been in equity cases,³⁹ the pace of relief from litigation has slowed since 2005. In 15 adequacy cases decided since then, plaintiffs have had a clear success only in New Hampshire and limited success in four other states. During the same time period, courts in Oklahoma, Indiana, Nebraska, Colorado, Oregon, and Kentucky ruled that the amount of state funding was a political question to be decided by the legislature rather than a constitutional question to be decided by the courts. Claims of inadequate funding also were dismissed by courts in Arizona, Texas, Massachusetts, and Missouri (see above) on a variety of other grounds.⁴⁰

In the future, the usefulness of costing-out studies is more and more likely to be determined by legislatures and governors than by courts. This reaffirms the vital role played by elected policymakers in assuring that states provide adequate funding so that all their students have an opportunity to achieve the state standards.

❖ Notes ❖

¹ National Access Network. *Costing out Overview* at <http://www.schoolfunding.info/policy/CostingOut/overview.php3>.

² *Ibid.*

³ Michael Griffith. *A Survey of Finance Adequacy Studies*, May 2007; National Access Network. *Status of Education Cost Studies in the 50 States*, May 2007 at <http://www.schoolfunding.info/policy/CostingOut/Costing-Out%20Chart.pdf>; Lefkowitz, *School Finance: From Equity to Adequacy*, 2004.

⁴ Act of July 11, 2006 (P.L.1092, No. 114).

⁵ Bellfield and Levin. *The Price We Pay: Economic and Social Consequences of Inadequate Education*, 2007.

⁶ Chambers and Parrish. "State-Level Education Finance" in Barnett. *Advances in Educational Productivity*, Vol. 45, 1994.

⁷ National Access Network. *A Costing-Out Primer* at http://www.schoolfunding.info/resource_center/costingoutprimer.php3.

⁸ Rebell. "Professional Rigor, Public Engagement and Judicial Review: A Proposal for Enhancing the Validity of Education Adequacy Studies," *Teachers College Record*, Vol. 109, No. 6, 2007; Griffith. *Op cit.*; National Access Network. *A Costing-Out Primer* at http://www.schoolfunding.info/resource_center/costingoutprimer.php3.

⁹ Guthrie and Rothstein. "Enabling 'Adequacy' to Achieve Reality: Translating Adequacy into State School Finance Distribution Arrangements" in Ladd, Chalk, and Hansen. *Equity and Adequacy in Education Finance: Issues and Perspectives*, 1999.

¹⁰ *Campbell County School District v. State*, 907 P. 2d 1238 (Wyo. 1995).

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- ¹² *DeRolph v. State* (1997) (*DeRolph I*) 78 Ohio St.3d 193.
- ¹³ Rebell. *Op cit.*
- ¹⁴ *Ibid.*
- ¹⁵ *Ibid.*
- ¹⁶ *Ibid.*; National Access Network. *Costing-Out Fact Sheets* at <http://www.schoolfunding.info/policy/CostingOut/factsheetslist.php3>.
- ¹⁷ Rebell. *Ibid.*
- ¹⁸ Mathis. "Two Very Different Questions," *Education Week*, Vol. 23, No. 32, April 11, 2004.
- ¹⁹ Rebell. *Op cit.*, pp. 1334-1335.
- ²⁰ National Access Network. *Costing-Out Fact Sheets* at <http://www.schoolfunding.info/policy/CostingOut/factsheetslist.php3>.
- ²¹ Unless otherwise noted, these summaries are drawn from *Ibid.* and Griffith. *Op cit.*
- ²² Hunter. *Maryland Enacts Modern, Standards-Based Education Finance System: Reforms Based on Adequacy Cost Studies*, 2002.
- ²³ Augenblick and Myers, Inc. *Calculation of the Cost of an Adequate Education in Maryland in 1999-2000 Using Two Different Analytic Approaches*, 2001.
- ²⁴ Management Analysis & Planning, Inc. *A Professional Judgment Approach to Determining Adequate Educational Funding in Maryland*, 2001.
- ²⁵ Hunter. *Op cit.*
- ²⁶ Guthrie *et al.* *A Proposed Cost-Based Block Grant Model for Wyoming School Finance*, 1997.
- ²⁷ Smith. *Proposed Revisions to the Cost Based Block Grant*, 2002; Lawrence O. Picus and Associates. *An Evidence-Based Approach to Recalibrating Wyoming's Block Grant School Funding Formula*, 2005.
- ²⁸ *Campbell County School District v. State*. 19 P. 3d 518 (Wyoming Supreme Court 2001).
- ²⁹ Augenblick, Palaich and Associates, Inc. *Estimating the Cost of an Adequate Education in Montana*, 2007.
- ³⁰ Augenblick, Van de Water and Myers, Inc. *School Finance in Mississippi: A Proposal for an Alternate System*, 1993.
- ³¹ *Lake View School District No. 25 v. Huckabee (Lake View III)*, 91 S.W. 3d 472 (2002).
- ³² Odden, Picus, and Fermanich. *An Evidence-Based Approach to School Finance Adequacy in Arkansas*, 2003.
- ³³ Conley and Rooney. *Washington Adequacy Funding Study*, 2007.
- ³⁴ Augenblick and Silverstein. *An Estimation of the Total Cost of Implementing the Result of the School Finance Adequacy Study Undertaken by the Missouri Coalition for Education Adequacy*, 2003.
- ³⁵ Augenblick, Palaich and Associates, Inc. *Estimating Colorado School District Costs to Meet State and Federal Education Accountability Requirements*, 2006.
- ³⁶ Augenblick, Palaich and Associates, Inc. *Estimating the Cost of an Adequate Education in Connecticut*, 2005.
- ³⁷ American Institutes for Research. *Efficiency and Adequacy in California School Finance: A Professional Judgment Approach*, 2006.
- ³⁸ Public Policy Institute of California. *Aligning School Finance with Academic Standards: A Weighted-Student Formula Based on a Survey of Practitioners*, 2007.
- ³⁹ National Access Network. *School Funding Litigation Overview*, 2007. <http://www.schoolfunding.info/litigation/overview.php3>.
- ⁴⁰ Lindseth. "A Reversal of Fortunes," *Education Week*, Vol. 27, No 3, September 12, 2007.



The Education Policy and Leadership Center is an independent, non-partisan and not-for-profit organization. The Mission of EPLC is to encourage and support the enactment and implementation of effective state-level education policies in order to improve student learning in grades P-12, increase the effective operation of schools, and enhance educational opportunities for citizens of all ages.

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