

## The Cost of Implementing the Federal No Child Left Behind Act: Different Assumptions, Different Answers

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*William J. Mathis*

*Superintendent of Schools*

*Rutland Northeast Supervisory Union*

*Brandon, Vermont*

In the debate about whether the No Child Left Behind Act (NCLB) is “fully funded,” 6 different definitions are used. The purpose of this article is to explore the implications of using each of these very different definitions. The 1st definition is that the law is fully funded because of large percentage increases in the federal appropriation. However, relative increases do not address actual costs. Second, claims that “unspent” federal monies show the law is adequately funded are found to lack empirical support. The 3rd and 4th definitions of fully funded are based on actual appropriations as compared with authorized appropriations, and with the definition of fully funded in the law itself. Although carrying significant political weight, these 2 definitions do not address the actual fiscal needs of states and districts. The 5th definition is whether new appropriations cover new administrative costs. New federal appropriations add 0.9% to total education spending, whereas new administrative costs cost states between 2% and 2.5% in new spending. The federal government has supplied \$4.6 billion in new funds, whereas the new requirements for administering the new law require at least \$11.3 billion in new funds. Sixth is the cost of teaching children to attain the state mastery levels as required by NCLB. Based on 40 separate adequacy studies, additional new costs to give all students standards-based opportuni-

Requests for reprints should be sent to William J. Mathis, P.O. Box 345, Brandon, VT 05733. E-mail: [wmathis@sover.net](mailto:wmathis@sover.net) or [wmathis@RNESU.K12.VT.US](mailto:wmathis@RNESU.K12.VT.US)

ties are conservatively estimated at 27.5% or \$137.8 billion in new money. Thus, implementation of the administrative and learning opportunities aspects of the law would require a new sum of \$144.5 billion or an increase of 29% in educational spending.

“When I use a word,” Humpty Dumpty said in rather a scornful tone, “it means just what I want it to mean—neither more nor less.”

“The question is,” said Alice, “whether you can make words mean so many different things.”

“The question is,” said Humpty Dumpty, “which is to be master—that’s all.”

And so it is in the wonderland of opposing claims about whether the federal No Child Left Behind Act (NCLB) is underfunded or overfunded. The debate has more than a tinge of partisanship. Yet, it also crosses traditional ideological lines.

Liberal and conservative state legislators are fomenting what the *New York Times*, *Christian Science Monitor*, and other media describe as a “rebellion” against NCLB (Paulson, 2004; Schemo, 2004). They criticize the federal mandates as onerous and point out that the federal government pays, at best, only about 8.2% of total spending. The amount set aside to carry out the remedial and accountability provisions of NCLB amounts to only about 2.6% of total education spending. The “historic” funding increases do not add even 1% to total education spending (Committee for Education Funding, 2004b; U.S. Department of Education, 2004).

As of April 2004, at least 24 state governments had passed a resolution, made formal protests, asked for relief, or taken other actions regarding what they see as the imposition of unfunded and unrealistic mandates (National Council of State Legislators, 2004).

- In Vermont, Act 64 passed in spring 2003 with strong bipartisan support says that neither the state nor a local district are obligated for any expenditure not covered by the federal appropriation.
- Maine passed a law in spring 2004 prohibiting the use of any state or local money to support the federal mandate.
- In March 2004, 14 chief state school officers petitioned the federal government for relief from the onerous provisions.
- In a 98–1 vote, the Virginia House of Delegates manifested their displeasure about this “unwarranted intrusion.”
- Connecticut has two districts turning back funds whereas Reading, Pennsylvania, brought suit against the state for inadequate funding.

- The Illinois State Board passed a resolution condemning the act.
- Utah's House voted to opt out of the law.
- Hawaii's legislature passed a resolution urging school administrators to give up the money (CNN, 2004; Dillon, 2004; Dobbs, 2004; National Council of State Legislators, 2004).

State legislatures across the nation have asked their research arms to estimate the costs of the law and determine whether their state should or should not opt out of NCLB. Meanwhile, with ever-growing numbers of schools labeled "in need of assistance," states face the daunting task of providing ever-increasing levels of technical assistance. In the shadow of looming lawsuits, state deficits and an uncertain economy, the states say they don't have the funding or personnel capacity (see McDermott & Jensen, 2005/*this issue*, for further explanation of the states' role in NCLB).

On the other hand, in his weekly radio address of January 4, 2003, President George W. Bush said that NCLB is fully funded. In stronger terms, Secretary of Education Rod Paige said in the *Wall Street Journal* that the act is "more than fully funded." The Secretary goes on to cite a 51% increase in federal Title I budget requests and appropriations since the passage of NCLB (Paige, 2003).

The Education Leaders Council, a self-described pro-accountability and pro-voucher group, said the claims of underfunding are "misguided." Their contracted study with "Accountability Works" argued that the "hard" costs of NCLB are more than paid by the federal appropriation (Education Leaders Council, 2004). The Hoover Institution (2004) concluded, based on Peyser and Costrell's (2004) work, that "the needed dollar amounts are relatively small and could be met easily by (re) allocating funds" (p. 1). The chair of the U.S. House Committee on Education and the Workforce questioned the credibility of underfunding claims made by the National Education Association (NEA) and said the union is trying to undermine the reforms. Representative John Boehner (R-Ohio) pointed to the increases in the appropriations and the amount set aside for testing and concluded that the law is a money-making machine for states (Boehner, 2004a).

Despite these disagreements, there is general consensus regarding the goal of the legislation, which is to make sure that every child is educated. However, the definition of how this education should be accomplished, how much it will cost, and who has the responsibility to pay shows little agreement.

The purpose of this article is to explore the different definitions of fully funded. This requires examining the underlying assumptions that lead various researchers and advocates to arrive at very different cost estimates. Resolving the controversy first requires resolving the differences in under-

lying assumptions. The primary divide is between those who assert that the cost of NCLB is only the newly added administrative costs required by the law, and those who say that the costs of actually teaching children to the new mandated standards must be included. Unfortunately, there is little refereed research in this area. At this point, almost all analyses have been conducted by partisan organizations or state contracted consultant work.

### What Does “Fully Funded” Mean?

With education at the center of ideological debates and state–federal tensions, cost estimates often vary with the perspective of the speaker. Umbrage about “unfunded mandates” comes from state officials (both Democrat and Republican) and local school district leaders who must shoulder the costs and the workload. Officials at both levels have contended that teaching all children in poverty to reach high standards will require massive investments in preschool, after-school, summer school, and the like. These costs reach far beyond the costs of running a testing bureaucracy or buying each teacher a test-prep manual. They also run beyond the traditional view of school purposes and funding capacities.

Claims that NCLB is adequately funded generally come from federal administration officials and from conservative, market-model-oriented think tanks. Peyser and Costrell’s (2004) study led Representative Boehner (2004a, 2004b) to conclude that the law is “overfunded.” Adherents of this school of thought consistently contend that education has enough money, but it is inefficiently used.

There are six very different definitions of (or arguments about) fully funded as illustrated in Table 1.

#### *Relative Increases in Appropriations Levels*

In numerous forums, Secretary Paige has insisted that NCLB is “more than fully funded.” His rationale is that the dollar amount of the federal Elementary and Secondary Education Act (ESEA) appropriation has increased by 40% and that the president’s request for Title I would represent a 51% increase. He further contends that NCLB is fully funded because we spend more on education than on defense. He goes on to say that claims of underfunding “are motivated by partisan politics and defenders of the *status quo*” (Paige, 2003). However, a relatively large percentage increase in a relatively small number says nothing about whether the increase is sufficient or insufficient to meet the needs.

Table 1  
Definitions of Full Funding

Definition	Description	Illustration(s)	Comments
1. Relative	The percentage increase in the federal appropriation	"Funding has increased 52% from FY2001 to FY2005."	Not based on new administrative costs or new teaching costs
2. "Money left on the table"	Unexpected federal monies at end of fiscal year	"States are collectively settling on more than a half billion dollars in unspent federal education funds"	Estimates aggregate money from NCLB and non-NCLB sources. Actual amount is 3/100 of 1% spending. "Carryover" is explicitly encouraged.
3. Authorization level	What the law said would be appropriated	\$20.5 billion authorized \$13.3 billion appropriated	Not based on new administrative costs or new teaching costs Funded at 67% of authorization level
4. Law's definition of full funding	Dollar cost of funding all eligible students at legally prescribed level	NEA estimated need \$28.2 billion CRS estimated need \$30.39 billion Actual appropriation: \$13.3 billion	School districts to receive an extra 40% of state average per pupil costs for each child in poverty (state minimums and caps)
5. Administrative hard costs	Estimates limited to cost of administering new features of law	Studies range from estimates of a new 5.3% increase in spending to a "surplus" of federal money. Average shortfall is 2% or \$10 billion. \$4.6 billion new money provided	Funded at 41% of definition level Reallocates existing federal and special ed money to NCLB in some studies Estimates exclude "required" activities under earlier law
6. Costs of teaching children to standards	Based on adequacy studies of what it costs to bring children to standards	27.7% median increase Estimated \$139 billion	Cost of teaching children to reach legally mandated standard regardless of funding source

Note. FY = fiscal year; NCLB = No Child Left Behind Act; NEA = National Education Association; CRS = Congressional Research Service.

The federal Title I appropriation was \$8.7 billion in fiscal year (FY) 2001 and the President's budget request for FY2005 is \$13.3 billion. Certainly, this would be a large percentage increase in this program. However, as a percentage of total education spending (\$501.3 billion), the Title I appropriation represents only 2.6%. The much-touted "historic" increases in Title I (\$4.6 billion) amounted to less than 1% of total education spending. Examination of the U.S. Department of Education budget request shows total federal education funding actually going *down* 3% in FY2006 (Committee for Education Funding, 2004a).

As for education spending being more than defense spending, this statement does not illuminate the needs for either. Dismissing higher estimates as politically motivated is an *ad hominem* argument and does little to ascertain funding adequacy.

#### *"Money Left on the Table"*

In this perspective, NCLB is overfunded as states, since 1998, have not used all available federal funds. Therefore, in this reasoning, there is no shortage of money. "We are pumping gas into a flooded engine," said Representative Boehner (R-Ohio). Since 1998, "almost \$6 billion" in federal education dollars have not been spent (Boehner, 2004b).

However, the Office of Management and Budgeting says *all* federal agencies have similar unexpended funds. The Departments of Defense, Transportation, Agriculture, and Homeland Security have unexpended fund balances greater than the education department. Although federal rules have since been slightly relaxed, the rigidity in how funds can be spent and the difficulty in combining money from the many programs has left small amounts sticking to the bottom of local and state pots. Furthermore, states have 27 months to obligate the money and 48 months to actually spend the money. When examining the amount of unspent monies after the 48 months, the "almost 6 billion" is reduced to \$155 million—or less than 3/100 of 1% of education spending (American Association of School Administrators, 2004). Though the argument has been used with a certain political facility, it represents neither the administrative needs nor the teaching needs associated with implementing NCLB.

#### *Federal "Authorization Levels" as Fully Funded*

NEA, American Federation of Teachers (AFT), and various federal legislators such as Senator Edward Kennedy say the authorization level was a promise made when the law was signed in 2001 (AFT, 2004; NEA, 2004). Secretary Paige, however, said that authorization levels do not represent commitments. He argued that it is common for actual appropriations to be

well below the authorization level. He described the authorization level as a guard rail to keep “wildly spending appropriators from driving the federal budget over the cliff” (Paige, 2003). In President Bush’s budget proposal for FY2005, the president asked for funding at \$13.3 billion for Title I. The authorized level under the NCLB law is \$20.5 billion for FY2005. This \$7.2 billion shortfall between the authorization and appropriation levels has been the most commonly used media, legal, and political basis for expressing the amount of the “unfunded mandate.”

In the minds of many legislators who voted for the bill, the authorization level represents what the federal administration promised. As politically and emotionally compelling as this argument, its major shortcoming is that it is not based on either the administrative costs or the true costs of having every child actually achieve the standards. Furthermore, the ESEA has historically been funded at approximately one third the level of its congressional authorization, so the politics of appropriating far less than what is authorized is not unique to NCLB.

#### *The Law’s Definition of “Full Funding”*

Yet another definition of full funding is the money needed to serve all eligible beneficiaries to the level expressed in the law. This is relatively straightforward; school districts are eligible to receive an extra 40% of the state’s average per pupil spending for every school-age child living in poverty. There are limits that raise the amount for low spending states and reduce the amount for high spending states.

According to a study by Fiscal Planning Services, Inc., commissioned by the National Education Association, the arithmetic shows a federal full funding amount of \$28.2 billion for FY2004. The federal government’s Congressional Research Service estimate is higher at \$30.4 billion. However, only \$12.3 billion was appropriated in FY2004 for a shortfall of more than \$18 billion. Thus, the federal appropriation was only 41% of the law’s own definition of full funding (AFT, 2004; NEA, 2004). Surprisingly, this definition has received scant attention in the debate.

#### *Administrative, Implementation, and “Hard Costs”*

This definition of costs is based on the added administrative, bureaucratic, and implementation expenses of the various features of the law such as teacher testing, student testing, the adequate yearly progress (AYP) accountability system, highly qualified teacher mechanisms, and the like.

In this view, the federal obligation to fund the law is limited to the cost of the *additional administrative* machinery or the new marginal administra-

tive costs. This is where cost estimates and competing contentions go down Alice's rabbit hole.

There are many difficult assumptions in this definition. Among these are that states were already doing, had planned to do, or should be doing certain activities under earlier laws and that these costs should not be counted as NCLB costs. This means the start and end points are open to debate depending on the initial set of assumptions of the analyst, the individual state's plan, student performance levels at the start of the program, and the level of the state's standards. As the Minnesota study wisely observed, such starting points are open to conjecture (Office of the Legislative Auditor, 2004). This definition is the most frequently used rationale to support the contention that the law is fully funded or "overfunded."

### *The Costs of Teaching Children to Standards*

Growing out of the accountability and standards movement of the last 2 decades is the parallel requirement that educational programs be funded sufficiently to ensure that all students reach the standards. That is, funded such that all children in all locations will have true and adequate opportunities. Since 1989, adequacy claims have been at the center of school finance litigation. Numerous studies have been conducted, using various methodologies, to estimate the costs of providing an adequate education to all children.

In this definition, adequately funding NCLB means the costs to actually teach children in such a way, with such programs, and with such intensity that all students have a legitimate opportunity to achieve the standards set by the state and, consequently, mandated by the NCLB law. In most (but not all) cases, the studies recognize that students with disabilities, lack of language skills, and poor social environments require more funds than those who do not face such obstacles.

Thus, six different conceptions of the cost of NCLB are used in policy and political arenas. Often, claims and arguments are made without reference to the critically important and dramatically different inherent assumptions. The conclusions vary accordingly.

The "relative increase," "money left on the table," and new administrative cost definitions (Definitions 1, 2, and 5, earlier) are frequently used to argue that the federal appropriation is sufficient. The "appropriation versus authorization" and the law's definition of "full-funding" (Definitions 3 and 4) arguments are used in legal and political debates but say nothing about true costs. The "cost of teaching children" definition (Definition 6) is used in state capitals and local districts where the true costs are becoming evident.



The “relative increase” and “money left on the table” arguments are set aside as they cast no light on how much it costs to implement NCLB. The legal definition of full funding and the debate over authorizations and appropriations are likewise set aside as neither is a measure of administrative costs or the actual costs of teaching children to standards. (This is not to say that these definitions do not have powerful implications in legal and political circles.)

Thus, the definitions that are most meaningful in the cost debate are centered on administrative costs and the cost of teaching standards to children. These are addressed in the next two sections.

### Administrative, Implementation, or “Hard Cost” Studies

In general, hard cost studies estimate the administrative costs of each NCLB requirement such as new testing, highly qualified teachers, paraprofessional training, accountability information systems, professional development, English language learners, and the like. Then the various components are added together to arrive at a total cost for NCLB.

Administrative cost estimates are essential yet problematic.

- The degree to which “planned” systems such as testing, teacher accountability, and technical assistance *would* have been implemented without NCLB is highly speculative in light of state budget shortfalls and the inevitable differences between plans and reality. Different researchers have made diverse assumptions about what “would have been” or “should have been” if NCLB had not been enacted. Thus, they begin their cost estimates at very different and very debatable starting points.

- With some exceptions (such as Connecticut), the studies concentrate on state administrative costs and do not generally include increases in local administrative costs. For example, administering expanded testing programs, expanded teacher and paraprofessional credential checks and monitoring systems, more demanding planning processes, and so on add to local costs. Thus, the studies tend to underestimate costs.

- Different states started in very different places. Some states had advanced testing systems and some had virtually none. In general, preexisting improvement support systems were quite weak although there is considerable variation between states. Thus, some states would have more costs than others.

- Whether the state’s required technical support to schools is designed as a major or a token effort dramatically affects costs. For example, if the state simply asks the school to file an improvement plan, the costs are low.

If they implement new curriculum, early education, and summer programs, the costs are high.

- Different states have adopted different standards. Obviously, the instructional and support cost of a state with low standards is very different from a state with high standards (Linn, Baker, & Betebenner, 2002). As shown in New York and Texas, as standards get higher, remedial costs increase dramatically (Duncombe, Lukemeyer, & Yinger, 2003; Reschovsky & Imazeki, 2002).

Twelve state administrative cost studies are examined (see Table 2). In these studies, some researchers include both administrative and remedial estimates. Care is taken to remove the remedial cost components in this analysis. A number of other studies are in progress or are not available. Among these 12, 7 were conducted or commissioned by state legislatures or state education agencies and 5 were conducted by nongovernmental agencies.

#### *The State-Sponsored or Conducted Studies*

Of the seven studies, the highest was the Vermont's Department of Education estimate of 5.3% in overall increased spending for new administrative costs by 2007. Significant cost issues were in data systems, and paraprofessional increases (Talbot, 2003b). It is possible that economies of scale work against small states, which may need to muster the same administrative machinery as larger states despite their smaller financial bases.

Connecticut (2004) uniquely included both the new local and state administrative costs. They found administrative costs doubling in future years to represent a new increase in total statewide educational spending of 2.3%. Hawaii's second study reported a very similar figure representing a 2.4% increase in total spending (R. Palaich, personal communication, August 6, 2004).

Four studies showed new state total expenditures around 1% new money for administrative "hard costs" alone—which is slightly more than the amount of the total new money received through the NCLB law. The most comprehensive and thorough of the administrative cost studies were in Ohio and Minnesota.

In a report to the legislature, Driscoll and Fleeter (2003) broke out Ohio instructional costs as well as new mandated "add-ons" to programs already underway. This included added testing, paraprofessional requirements, highly qualified teachers, and the like. They concluded that \$105.4 million would be needed, but the federal government was only supplying an additional \$44 million above inflation. Thus, new administrative costs exceeded available revenues by a factor of 2.4.

Table 2

## Additional Administration (Marginal) Costs

State	Year	Who Initiated/ Conducted Study?	New Administration Costs as % of Total Spending	Reallocates Existing Money?	Increases in Administrative Hard Costs
CT	2004	CT DE	2.3%	No	New money; +22% state; +99 local hard costs
NH (A)	2002	NH Association of School Administrators	2.9%	No	750% with remediation; 400% without remediation
NH (B)	2003	NH Business Roundtable Accountability Works	3/10 of 1% surplus	Yes	None
NH (C)	2004	NH Association of School Administrators	2.80%	No	\$62.4 million in hard costs, total new money received is \$22.4 million
HI (A)	2003	State Department of Public Instruction	1%	No	Federal 19%, state 45%
HI (B)	2004	Augenblick, Palaich, & Associates	2.4%	No	\$30 million per year, plus \$24.6 million (one time)
IN	2003 <sup>a</sup>	State Budget Agency; Legislative Service Agency	1%	No	\$116 million shortfall
MA	2004	Education Next; Peyser and Costrell	"Comes pretty close"	Yes	74% administrative increase Testing costs may increase in future years. Technical support is only half of what is needed
MN	2004	Office of the Legislative Auditor	"Substantial fiscal impact"	No	Greater than \$39 million needed; \$42 million new money available
OH	2004	Legislature; Driscoll & Fleeter	Less than 1%	No	\$105.4 million needed, \$44 million new money provided, 240% increase
VT	2003 <sup>b</sup>	Legislative NCLB Oversight Committee Talbott (State DE)	5.3%	No	\$66 million in new hard costs, roughly equivalent to total appropriation
WV	2003 <sup>a</sup>	WV DE	2.5%	No	Without sped or remedial costs
Education Leaders Council	2004 <sup>b</sup>	Accountability Works	1% surplus	Yes; all ESEA; +50% Sped	None; "surplus"; \$4.9 billion in fiscal year 2008

Note. DE = Department of Education; NCLB = No Child Left Behind Act; ESEA = Elementary and Secondary Education Act.

<sup>a</sup>December. <sup>b</sup>January.

The Office of the State Legislative Auditor (2004) in Minnesota assumed that federal funds could be reallocated without harm and observed that local districts have been taking money from other educational programs to support NCLB. The report provides a lengthy compendium of new requirements and separates what the law requires from what the schools and the state would have done under preexisting initiatives if the federal law had not been passed. The report doubts that the ambitious NCLB goals can be met and notes that new administrative costs consume almost all new state NCLB money (\$39 of \$42 million) without the costs of curriculum alignment, corrective action, restructuring, teacher costs, paraeducator costs—or the cost of “making all students proficient.”

Hawaii (2003) used a rough estimate which showed about 1% in new accountability costs with federal increases falling short of needs by \$5.8 million. This informal estimate was superseded by a more comprehensive study by Augenblick and Palaich, noted earlier, which found a 2.4% total cost increase. In a comprehensive review of the impacts of NCLB, Indiana’s State Budget Agency and the Legislative Services Agency (2003) calculated a shortfall of \$116 million or a 74% increase in administrative costs.

#### *The Nongovernmental Sponsored Studies*

These studies have generated the most controversy and, thus, are examined closely.

The New Hampshire Association of School Administrators developed a cost impact statement in November 2002 (Joyce, 2002). The report concludes that the Elementary and Secondary Education Act (ESEA) brings in \$77 per student in new money but the financial obligation is \$575 per student. Removing the special education costs included in this study, administrative costs add only 2.9% to total New Hampshire education spending.

The New Hampshire Business Roundtable responded with an *Accountability Works* (2003) study. Basically, the effort defined NCLB costs as the cost of student, teacher and paraeducator testing, tutoring, and retesting; a 5% raise for paraeducators; and a 3% raise for only the science and math teachers. The study found no need for further special education or remedial funding and added the federal NCLB and special education funds together. Thus, federal allocations provide a “surplus” of three tenths of 1% of total spending. The authors “suspect that the cost estimates are a little on the high side” (Accountability Works, 2004).

The Administrators returned with an updated report (Joyce, 2004). The Administrators’ organization concluded that their earlier estimates were too low. The new report says New Hampshire receives 102 new dollars per student but the cost of implementing NCLB is \$1,022 per student, a cost fac-

tor of 10 times. Removing remedial costs and recalculating the administrative hard costs results in a 2.8% increase in total New Hampshire spending.

In an essay published in *Education Next*, Peyser and Costrell (2004) claimed that NCLB underfunding claims “wilt under close scrutiny” (p. 23). Using their experience in Massachusetts they contend that many estimates in other states are not standards based and that the federal government “come(s) pretty close” to paying its way. Yet, the authors note that testing funds may be inadequate as more grade-level tests come online, that technical assistance funds to schools may only be half of what was promised, and that there is an \$8 billion shortfall in school improvement funds (1.5% of total education spending). To partially cover these gaps, the authors reallocate other funds and call for greater efficiencies.

The *Education Leaders Council*, a group whose express purpose includes advancing academic accountability and vouchers, sponsored a national projection of NCLB costs by “Accountability Works.” They concluded that the federal funding to support NCLB is sufficient and is likely to remain so. They assumed a federal appropriations increase of 7.2% per year through 2008 (Accountability Works, 2004). However, the U.S. Department of Education estimates federal funds will only increase 3% in FY2005 and actually decline by 3% in FY2006 (Committee for Education Funding, 2004b).

The writers limit their analysis to “hard costs,” which they define as anything beyond what they consider schools should have completed under previous laws. Thus, they set cost requirements for implementing AYP systems at zero. The cost of Highly Qualified Teachers and paraprofessionals is based on a test preparation manual, the costs of tests, and test tutoring. School improvement is estimated by the cost of buying a Comprehensive School Reform package and implementing it across needy schools. The issue of the cost of teaching children in impacted poverty is not factored into the study directly. Whether a package program is an effective and complete strategy for dealing with children in poverty does not, at this point, enjoy broad support in the literature.

For revenues the study assumes the federal increases noted earlier, reallocates all NCLB funds, and reallocates 50% of federal special education money. They assume that services now delivered with this money can be delivered more efficiently and, thus, this money can be redirected. By this arithmetic, the report concludes that the federal government will actually provide a “surplus” of almost \$5 billion by 2007–08 (or 1% of total spending).

*Administrative costs discussion.* In these 12 studies, greater weight is given to the seven state-government-sponsored efforts because they do not generally have the appearance of bias, they are more comprehensive, and the assumptions are not as extreme. Furthermore, government-sponsored

efforts are moderated by their having to be presented to legislative audiences of different persuasions.

When the state-sponsored administrative cost studies are compared to the federal increases in Title I, it is a consistent finding that increases in federal appropriations do not cover the increased administrative costs. Vermont's administrative costs are virtually equivalent to the entire appropriation without any funds allocated for teaching children. Connecticut sees a 22% jump in state administrative costs and a 99% increase in local administrative costs. Ohio received \$44 million in new money and sees new administrative burdens of \$105 million. Minnesota received \$42 million in new money and counts \$39 million in new costs without including curriculum, restructuring, educator, paraeducator, teacher training, or remediation. Using different methods, Hawaii and Indiana both show expenses running significantly higher than the new federal revenue. In the non-governmental reports, the New Hampshire administrators see a 400% increase for administrative costs alone.

The estimates arguing that NCLB funds are adequate all reallocate funds from other sources, particularly special education. Leaving aside the chronic federal underfunding of special education, reallocating means money must be taken away from programs focused on helping children and improving teachers. Thus, reallocation is likely to be a self-defeating action. Further, this reservoir of available monies is only generally identified and evidence is not presented that it even exists.

Each of the three studies also recommends savings through increased "efficiencies." However, very few specifics are attached to the claims of greater efficiency. The Education Leaders Council does propose specific activities focused on staff quality but no source or amount of funding is identified or taken into account.

Taken together, states will have to spend more than what they receive in new federal monies to implement the act. A reasonable estimate based on the studies to date suggests increases in total new administrative or new marginal costs of between 2% and 2.5% with total new federal revenues at less than 1%.

### What It Costs to Teach the Children: The Standards-Based Adequacy Studies

Standards-based adequacy studies are particularly useful in estimating the costs of NCLB. They define the resources necessary for children to meet the state adopted standards—which is precisely the NCLB requirement.

They typically, but not always, define special needs and remedial costs either within or in addition to their cost estimates. They generally do not include the bureaucratic, administrative, or hard costs. Likewise, except for only three cases, they do not include facilities costs. Therefore, “educational adequacy” studies provide particularly useful estimates of true costs to meet the state standards and, thus, the NCLB standards.

Five basic methods for computing NCLB costs and/or educational adequacy have been used. Each method has its own strengths and limitations. Taken together, they serve as valuable yet diverse ways to examine costs. Many states use three or four of these approaches simultaneously.

- Statistical estimates (9 studies)—To a greater or lesser degree, all costing studies develop a cost model and project it across the state. In estimation procedures, a cost is typically established for each key component; these are added together and multiplied by the number of schools or students. This provides a statewide figure of NCLB costs. The advantage of this method is ease and transparency of assumptions. The disadvantage is that the base cost figures have not been validated closely and the results are only as good as the underlying assumptions.

- Professional judgment (21 studies)—In this fundamental adequacy approach, carefully selected and knowledgeable panels of educators work in a structured team environment to define the resources needed for all children to reach standards. The approach has particular power in that it represents the professional consensus within a state.

- Successful schools (9 studies)—In this method, high-scoring schools are identified and their costs are analyzed. The advantage is that the method is easily understood and applied. The disadvantage is that the high scoring schools do not have the same demographic characteristics as the more needy and low performing schools.

- Production/function model (5 studies)—In these cases, statistical modeling is used to define the best combination of resources and attributes to maximize achievement scores. The advantages are that the system is objective and is valuable for estimating cost-of-living factors. The disadvantage is that the complexities of the models render them difficult to understand by lay and policy audiences. Likewise, the method is limited to broad-based quantifiable measures.

- Research (or evidence) based (2 studies)—In this model, parameters are established by examining the research literature on a broad range of important variables (e.g., class size, school size, kindergarten, etc.). This information is then used to set parameters for a professional judgment type of panel.

### *Selection Criteria for This Analysis*

First, all studies reviewed had to be based on children meeting state achievement standards, which is the key NCLB requirement. Second, the studies had to be recent. Only two studies were as old as 1999. Third, the studies had to be comprehensive. For example, a number of partial studies on the cost of only a single facet of NCLB (such as English language learners), methodological models, and cost-of-living studies were not included. A number of other studies are known to be in progress and others have not been released.

### *The Findings*

In examining these results, a word of caution is necessary. They are estimates based on different studies by different authors using different methods in different locations. Nevertheless, the fact that when multiple methods are used in a single state the results are reasonably close (but not always, as in Kentucky where two studies had divergent outcomes) indicates there is a sound consensus that NCLB costs will be higher.

As can be seen from Table 3, there is considerable variation in study results depending on method and location. Nevertheless, better than 80% of the findings show total spending increases of more than 10%. Over 60% of the findings fall between 10% and 40% of education spending increases. The numbers of findings above 40% increases are roughly balanced by a similar number of findings below 10% increases. The median increase is 27.5% for an estimated need of \$137.8 billion new dollars.

Somewhat surprisingly, the less sophisticated (and more subjective) statistical estimates efforts provided cost figures on the low side of this distribution. Production function studies showed the greatest extremes, running both very high and very low. Professional judgment studies varied between 17% and 35% increases with only a few outliers. Successful schools models typically produce lower figures than professional judgment panels within a state, but this pattern was not pronounced in this universe of studies. Successful schools were only marginally lower in the aggregate.

As high as the increased costs reported here, they still remain conservative. Seven states used a proficiency standard lower than 100% of the students achieving mastery (several researchers dismissed NCLB requirements as unrealistic). Likewise, use of a modal estimate (rather than median) would yield higher costs. Mean estimates are not used because of several extremely high cases. Furthermore, aid for remedial work or special education was not considered in some studies and others noted an additional amount needed for each student that was not included in their



Table 3

## Recent Standards-Based Adequacy Reports: The Costs of Bringing Children up to Standard

State	Year	Who Initiated/ Conducted the Study?	Method	Standard	Cost	% Increase	Categoricals Included?	Facilities	Comments
AL	2001	Court-ordered state board and department (2001)	Market basket, P]	"Just adequate"; "All children have adequate opportunities"	\$1.4B on top of \$2.9B	33%; 50% with facilities	Yes: special education, at risk, food services, transportation, pre-K	Yes, \$438M additional	
AR	2003	Legislature: Odden, Picus, & Fermanich (2003)	P]; evidence based	Every student meets rigorous state standards	Plus \$848M on top of \$2.6B (FY2002)	33%	Yes	No	
CO	2003	Colorado School Finance Project; Augenblick & Myers (2003)	P], SS	NCLB; state input and performance	\$16,373 very small districts; \$10,357 small; \$6,851 large	32.6% SS	Yes: Plus \$9,000	No	SS with 85% graduating; progressively higher costs in out-years
CT	2004	State Department of Education (2004)	Statistical estimates	NCLB/state standards	\$463M	8.5%	Remedial costs only	No	
HI	2003	State Department of Education (2003)	Statistical estimates	NCLB	\$302M	19.90%			
IL (A)	2000	General Assembly Funding Advisory Board; Henricks (2000)	SS	NCLB input standards	\$1.8B	33% K-3, 9% upper elem, 9% mid-junior HS, 15% HS	No	No	Heavy emphasis on personnel compliance and student support

IL (B)	2001	Funding Advisory Board; Augenblick & Myers (2001c)	SS	83% of students meet standards	\$4,425 to \$4,600 per student in base amount	4%	Additional \$1,697 to \$2,329 per needy student not included	No	Based on state not being able to afford earlier estimate.
IN (A)	2003	Legislative state budget; agency/state legislative agency (2003)	Statistical estimates	NCLB fiscal impact	\$927M	25.50%			"Closing the achievement gap"
IN (B)	2002	Indiana State Teachers Association; Augenblick & Myers (2002)	PJ	80% of students pass basic education	\$1B	27.5% for basic education	Not included + \$8,045 pp special needs (17%) + \$5,284 pp hard to serve (17%)	No	Only 80% reach standards; costs vary by district size
KS (A)	2002	Legislature; Augenblick, Myers, Silverstein, & Barkis (2002)	PJ, SS	Suitable education, standards based	\$852M	19% PJ; 22% SS	Additional costs needed for size: sped 90-150% per pupil; at risk 20-60% per pupil; ELL 15-97%	No	Estimates 8.3% overall increase needed if funds are redistributed from rich to poor
KS (B)	2003	Shawnee County court	Court decision	Suitable education	\$1B	38%			Judge concludes Augenblick and Myers underestimated costs
KY (A)	2003	Governor's office; Deffendall (2003)	Statistical projections	Implement KERA	\$400 M	10% (pre-NCLB)		No	Governor's estimate to meet legislative commitment

(continued)

Table 3 (Continued)

State	Year	Who Initiated/ Conducted the Study?	Method	Standard	Cost	% Increase	Categoricals Included?	Facilities	Comments
KY (B)	2003	Council for Better Education; Versteegen (2003)	PJ	State adequacy targets; Rose decision criteria	\$892M	23%	Yes	Yes	Prototypes
KY (C)	2003	Department of Education; Odden, Picus, & Fermanich (2003)	Evidence based	High quality	\$740M	19%	Adds, ESY, preschool	Yes	
LA	2001	State Board of Education; Augenblick & Myers (2001b)	SS	School grade over 100 accountability points plus shows gains of 75%	\$4,174 elem (\$3,103 previous), \$4,234 mid (\$3,103 previous)	34.5% elem, 36.4% mid	Reduce class sizes, adds preschool, and professional development	No	A foundation formula revision more than an adequacy study Excludes sped and vocational 10.2% figure based on redistribution from rich to poor; total cost revised upward since original report; categorical work ongoing
ME	1999, 2004	State Board of Education Essential Programs and Services Committee; Silvermail (1999, 2004)	PJ, SS	All students pass state standards	\$131M on top of \$1.3B	20% (2004 revised), 10.2% (orig. 1999)	Ongoing	No	
MD (A)	2001	Thornton Commission; Augenblick & Myers (2001a)	PJ, SS	All students pass state standards	\$2.0B on top of \$5.9B	34% SS, 49% PJ	Yes	No	No transportation, facilities; or teacher retirement
MD (B)	2001	New Maryland Education Coalition Guthrie/MAP (2001)	PJ	Meet current state standards	\$300M to \$2.7B	5-46%	Yes	No	Wide range due to different committee assumptions

MA (A)	2003	Versteegen (2003)	PJ	All students pass MCAS tests	\$12,644 small district; \$12,450 medium district; \$13,657 large district	+85% small, +83% medium, +100% large	Yes	No	Current spending \$6,820 pp
MA (B)	2003	Myers (2003)	Statistical estimate	Pass math and language arts tests in sample districts	\$9.1K-\$10.8K pp	45% (approx)	Yes	No	Partial study: no transportation, food services, or COLAs
MO	2003	Missouri Education Coalition for Adequacy; Augenblick & Silverstein (2003)	PJ, SS	69% reach standard, NCLB noted: considered unrealistic	\$913M on top of \$4.5B	20%	Special education, poverty, limited English proficiency	No	No: transportation, food services, facilities, COLAs
MT	2002	National Council of State Legislators; 5 educational organizations; Myers & Silverstein (2002)	PJ	NCLB state standards	\$171M on top of \$996M (FY2001)	17%	Yes: preschool, \$7,216-\$8,795 special ed. \$1,774-\$2,092 at risk, Native American size	No	Different costs by school sizes and grade configuration
NE	2003	10 groups; Augenblick & Myers (2003)	PJ	NCLB "essential education"	\$8,103-\$13,525 total expenditure based on type	45% large K-12, 93% medium K-12, 141% very small K-12	\$1,035-\$2,638 low income, \$3,333-\$12,020 sped, \$2,619-\$11,187 ELL	No	Prototypes by size
NY (A)	2004	Foundation supported joint AIR/MAP team (2004)	PJ	All students given opportunity to pass Regents Standards	\$6.21B over \$31.99 B	19.40%	Sped, at risk; extended day/year; geog COLAs	No	Incremental costs, "preliminary"

(continued)

Table 3 (Continued)

State	Year	Who Initiated/ Conducted the Study?	Method	Standard	Cost	% Increase	Categoricals Included?	Facilities	Comments
NY (B)	NYC	Foundation supported AIR/MAP team	PJ	All students given opportunity to pass Regents Standards	\$3.63B additional	31.40%	High needs	No	Subset of overall state study
NY (C)	2004	Legislature Commission on New York State Education Reform (Zarb Commission) (2004)	SS	SS and elimination of top spending 50% of these schools	\$2.5-5.6B	17% increasing to 39% in out-years	Poverty, English language	No	"Hold Harmless" provision
NY (D)	2003	SUNY Research Foundation; Duncombe, Lukemeyer, & Yinger (2003)	Production/ Function	All students given opportunity to pass Regents Standards, NCLB	\$6B overall with redistribution	+95% NYC, +53% Big 3 cities, +6% upstate suburbs, -6% upstate rural	Poverty	No	Cost at two different achievement levels, redistributes state aid, regional COLAs as key variable
ND	2003	Department of Public Instruction; Augenblick, Palaich, & Silverstein (2003)	PJ	NCLB state	\$206M new money, FY2002 dollars over \$660M	31%	At risk, sped, district size, ELL	No	Prototypes by size, no transportation
OH	2003	Ohio General Assembly	Statistical estimates	100% meet NCLB	\$1.447B annually by 2010, \$1.342B for intervention; remediation	11%	New interventions	No	Primarily cost of intervention programs for first 4 grades, "maintenance" in upper grades, National Review Panel

OR	1999	Legislative assembly, Legislative Council of the Oregon Quality Education Model (1999)	Market basket, PJ	90% pass test; broader qualitative definition	\$957M over \$5.08B	19%	Sped, no poverty factor	No	3 prototypes, pre-NCLB, no vertical equity
SC	2000	South Carolina Association of School Boards; Augenblick, Myers, & Silverstein (2000)	PJ	85% pass elem state tests, 75% pass mid state tests	\$2.9B over \$3.1B	84%	Sped, free and reduced	No	New teachers for intensive remediation, prototypes
TX (A)	2002	OERI grant; Reschovsky & Imazeki (2002)	Production/Function	Previous state tests (TAAS); bring all districts to state average	\$6.9B	35%	Yes, sped, at risk	No	Bringing all schools to state standards considered an unjustified assumption
TX (B)	2004	Joint Select Committee; Gronberg, Jansen, Taylor, & Booker (2004)	Production/Function	TAAS gain scores or ACT scores	\$226M-\$408M	0.85-1.5%	Size, sped, poverty, limited English, geography	No	Volatile SES measures; poverty requires +\$1,960; LES +\$1,248; sped +\$3,695; HS +\$4,001
TX (C)	2003	Imazeki & Reschovsky (2003)	Production/Function	Increasing passing school average from 50% to 75%	\$6,910-\$9,518 per pupil	37.70%	Yes	No	Poverty and limited English underfunded
UT	2004	Legislature; Dayton (2004)	Statistical projections	NCLB	Legislature \$202M, State Department of Education \$393M	20%--39%	Yes	No	Estimation work continues

(continued)

Table 3 (Continued)

State	Year	Who Initiated/ Conducted the Study?	Method	Standard	Cost	% Increase	Categoricals Included?	Facilities	Comments
VT (A)	2002	Governor; Mathis (2002)	Statistical projections	NCLB state standards	\$158.2M	15.50%	at risk	No	Cost of remediation and testing only
VT (B)	2003	Legislature; Mathis (2003)/Talbot (2003)	Legislature/Projections	NCLB state standards	\$198M	20.00%	at risk	No	Remediation plus administration
VT (C)	2004	Legislature	PJ, SS	"Sound Education" state standard, NCLB	\$9,735 pp over average \$7,506	19.1% PJ (-4% to +13%), SS	No transportation, no sped	No	SS and geographic differentials hampered by small nos.
WA	2003	18 education organizations; Conley/Rainier Institute (2003)	Evidence based, PJ	7 outcome and process variables	\$1.7B on top of \$5.6B	30%	Kindergarten, technology, professional development, ESL, class size, no poverty, no preschool	No	Broad view of education, new legislative study expected
WI (A)	2000	Reschovsky & Imazeki (2000)	Production/Function	Value added test scores (pre-NCLB)		6% increase in state aid	Yes	No	
WI (B)	2002	Institute for Wisconsin's Future; Norman (2002)	PJ, research based		\$2,280 on top of \$8,241 pp	35%	Regional COLA, low income, sped, ELL, pre-K, health	No	

Note. PJ = professional judgment; B = billion; M = million; FY = fiscal year; SS = successful schools; NCLB = No Child Left Behind Act; ELL = English language learners; elem = elementary; mid = middle; HS = high school; pp = per pupil; KERA = Kentucky Education Reform Act; Adds = Additional money needed; ESY = Extended school year; MCAS = Massachusetts Comprehensive Assessment System; AIR/MAP = American Institutes for Research and Management Analysis and Planning; geog = Geographical Cost Differentials; SUNY = State University of New York; OERI = Office of Educational Research and Improvement; TAAS = Texas Assessment of Academic Skills; SES = socioeconomic status; LES = Limited English Speaking; ESL = English as a second language.

base increases. Likewise, facilities, food, and transportation costs are omitted from most studies.

Thus, based on these 40 analyses from 26 states, the pattern of significant underfunding of programs to educate children is almost universal regardless of geographic location or methodology. In addition to administrative costs, the cost of teaching all children to standard is estimated at 137.8 billion new dollars if we are to meet the NCLB requirements.

### Summary and Conclusions

The claim that the law is “fully funded” because funding has increased by a large percentage is based on assumptions this author deems invalid, as it evades the question of added costs. Similarly, the claim that unspent “money left on the table” indicates the law is overfunded does not withstand the scrutiny of federal accounting procedures and spending rules. Further, this claim is not a needs-based argument.

Likewise, comparing federal appropriations with authorization levels and comparing appropriations with necessary funds, as defined by the law, do not evaluate the true costs of reaching the goals of the law. However, added new administrative costs and costs to teach children require close needs-based scrutiny.

#### *Added Administrative Hard Costs*

The seven independent state studies suggest an increase in total education spending ascribable to NCLB administrative costs between 2% and 2.5%, or \$11.3 billion new dollars (at 2.25%). This is compared to the total increase in Title I monies of \$4.6 billion.

In the government-sponsored studies, four of the six states are at about a 1% increase in total administrative spending but, *in all six cases*, the total increase in NCLB appropriations falls short of covering the added administrative costs—not to mention the costs of teaching children.

Of the three studies claiming that NCLB funding is adequate, each reallocates existing federal ESEA and special education monies without considering that these monies are already being used for some other legislated purpose. All assume greater “efficiency” will resolve shortfalls without providing substantive support for this claim. Nevertheless, one of these studies notes a federal shortfall of \$8 billion (1.5% of total spending) whereas another shows a surplus of three tenths of 1%. The third study calculates a 1% surplus by assuming that federal appropriations will go up 7.2% per year in the future. We know that federal FY2005 levels are debated



around 3% (at this writing) and FY2006 administration levels are *minus* 3%. Subtracting the apparent revenue shortfalls and recalculating this estimate would likely result in greater levels of inadequacy.

Fog is generated when researchers attempt to parse assumptions about what the states should have done, might have done, or were thinking they might do if NCLB had not passed. As the Minnesota study demonstrates, sorting out this endless string of “what ifs” is ultimately inconclusive and irresolvable. Nevertheless, no one denies that these mandated activities must be accomplished by some combination of local, state, and federal funds. Thus, this is not an argument over the size of the bill but, rather, who has to pay it.

### *Costs to Teach the Children*

In looking at what it costs to teach all children to NCLB standards, adequacy costs add an estimated 27.5% or \$137.8 billion. Adding in the administrative costs of \$11.3 billion (minus the \$4.6 billion of new money), the sum is \$144.5 million or a total national increase in education spending of 29%.

### *Is NCLB an “Unfunded Mandate?”*

Humpty Dumpty said a word “means just what I want it to mean—neither more nor less.” In the debate about costs, the ultimate in linguistic disagreement is about the contested definitions of the very terms “unfunded” and “mandate.”

Secretary Paige pointed to a General Accounting Office (GAO; 2004) report and said, “The chorus of the ‘unfunded mandate’ has now been exposed for exactly what it is—a red herring” (Paige, 2004). Department of Education spokesperson Ron Tamalis said the GAO has “put a nail in the coffin of (the unfunded mandate) canard” (Hoff, 2004).

However, the GAO report concluded that NCLB is not an unfunded mandate only because a state can technically decline the money, not because the legal obligations significantly outrace the revenues. As noted by *Education Week* (Hoff, 2004) and the Organization of Institutional Affiliates (2004) of AERA, the GAO strains at the tight restrictions of the technical definition imposed on them.

Three months before the GAO report, Federal Deputy Secretary Hickok (2004) wrote to Utah state superintendent Steven Laing and said, “The rejection of state Title I money would result in serious consequences to other programs.” Federal educational technology, safe and drug-free schools, 21st-century community learning centers, homeless assistance, Headstart, and comprehensive school reform funds “would be negatively affected.”

Thus, although Secretary Paige says the law is not an unfunded mandate because a state can decline the funds, Deputy Secretary Hickok elaborates on the penalties for actually refusing to accept the monies.

The true mandate is to teach all children in all subgroups to reach standards, to thrive, and to contribute to a 21st-century democracy. As noble and imperative as the goal, the structure of the NCLB process has unintended consequences that stand in the way of achieving this very goal. The AYP process combined with an extensive assessment panoply and the cost of remediation go far beyond what the initial estimates. Based on these studies, it is incontrovertible that NCLB is not funded adequately to achieve these goals. If we strive to meet the ambitious goals of this law, we cannot escape the weight of the evidence that demonstrates that we need about 29% new money or \$144.5 billion for administration, teaching, and support services—and most of this must be focused on our students with greatest needs.

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TITLE: The Cost of Implementing the Federal No Child Left Behind Act: Different Assumptions, Different Answers  
SOURCE: Peabody Journal of Education 80 no2 2005  
PAGE(S): 90-119  
WN: 0500201261007

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