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Estimating the Costs of Restructuring Options under the No Child Left Behind Act of 2001 Brett Lane

Introduction

The 1965 Elementary and Secondary Education Act authorized Title I, the Funds for the Education of the Disadvantaged. Title I is a funding stream and regulatory mechanism designed to redistribute funds to low income students towards the goal of increasing educational outcomes among low income students. Title I is a redistributive policy focused on promoting equity. Since the 1994 reauthorization of ESEA, Title I regulations have promoted three historically unrelated movements within the context of standards-based reform: (1) the development of school-wide school improvement strategies; (2) the inclusion of market-based approaches (e.g., vouchers and charter schools); and (3) the idea that districts and schools are accountable for student performance (Lane, 2003). Support for these three distinct, but now intertwined, movements have continued under the current No Child Left Behind (NCLB) Act of 2001. State Education Agencies (SEAs) are struggling to meet the demands of NCLB and posed by the three movements – school improvement, choice and market processes, and accountability (Dwyer, 2005).

Under NCLB and Title I regulation, truly failing schools (e.g., those unable to educate students) are required to choose one of five "restructuring" options. If the public education system was an open market, characterized by multiple firms (districts and schools) competing for students (and their resources, either public or private) and an adequate level of information sharing among parents about the quality of schools, then failing schools would close as a result of parents/students choosing to leave and attend schools providing better quality education. Since the public education system is not an open market and unable to produce market efficiencies, low-income students have little real choice to attend better schools (Chubb, J.E., & Moe, T.M. 1994). As noted, Title I is a direct regulatory response to this failure of the education market to

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fully serve low-income students. The current Title I regulation and mandate that failing schools must choose and implement a "restructuring" option is an attempt, via regulation, to artificially create a situation that would occur naturally in an efficient market – the closing or restructuring of a school.

The restructuring options proposed and required by NCLB have not been fully implemented. In most states, districts and schools have chosen the least intrusive restructuring option¹. On a similar note, there is a dearth of evidence than any of the restructuring options will actually lead to the intended goal – to improve school and student performance. And finally, there has been little to no real discussion about the actual cost of restructuring options, even though state legislatures are asking, and in some cases demanding, that their SEA provide evidence that statelevel supports (including restructuring) are worth the money that is being spent. Given the lack of understanding and information about the actual cost or potential effectiveness of restructuring options, it is interesting to note that there are limited (actually, one) studies that explore the costs of restructuring (see Rice, J. K., and Malen, B. M, The Human Costs of Education Reform: The Case of School Reconstitution). The national study of the implementation of NCLB focusing on how states support underperforming schools does not have a cost analysis component. Keeping in mind questions of efficiency and equity in the context of Title I regulation, I explore the feasibility of using an economic evaluation approach (e.g., a cost-effectiveness evaluation) to better understand the actual cost of school restructuring options and inform state and district decision-making. Following a brief overview of Title I and the Restructuring Options and a discussion of the use (or lack thereof) of cost-effectiveness studies in education, I propose a framework for studying the cost-effectiveness of restructuring options. I close with a brief discussion of implications of NCLB and its emphasis on sanctions in the context of efficiency and equity.

¹ Discussion with Jennifer O'Day, April 2007; AERA conference, Chicago, IL.

Setting the Context: Title I and Restructuring Options as Regulatory Mechanisms

Since 1965, Title I has served as a funding stream for states, districts and schools with the goal of decreasing the achievement gap between lower income (and often minority students) and middle-and higher-income, non-minority students. Title I has not been successful in achieving this goal (PEPD, 2006). Over the past 10 to 15 years, the U.S. Department of Education has used Title I and its regulatory power to support the standards movement and broaden the use of choice and market-oriented mechanisms. In the NCLB Act of 2001, schools that are identified for improvement, based on poor academic performance, are required to provide Supplemental Education Services (SES), a form of vouchers that can be used by low-income student to receive tutoring and district-wide school choice to low-income student in identified schools. Funding for SES and choice is provided by existing Title I funds and involves a relatively straightforward reallocation of Title I funds from the low-performing school to the SES provider or to the school to which students transfer². Studies on the effectiveness of SES and Choice are underway and preliminary findings are inconclusive.

When schools fail to make progress – referred to as Adequate Yearly Progress (AYP) – for two consecutive years as defined by the state accountability system, they are **identified for improvement**. Once identified for improvement, schools must make AYP for two consecutive years to be removed from the state's list of identified schools. If a school fails to make AYP for five years after first being identified, they are required by Title I law and regulation to adopt a restructuring option. The restructuring options are as follows:

- Chartering: closing and reopening as a public charter school
- Turnarounds: replacing all or most of the school staff, including the principal
- Contracting: contracting with an outside entity to operate the school
- State takeovers: Turning the school operations over to the state education agency
- Other options: engaging in another form of major restructuring³

² There is also a stipulation to use Title I funds to provide for transportation of students to different schools.

³ Adopted directly from School Restructuring Under No Child Left Behind: What Works When: -- A Guide for Education Leaders by Learning Point Associates and the Center for Comprehensive School Reform and Improvement

Each of the restructuring options is a form of alternative governance, based on the premise that failure is due to organizational and governance performance rather than external issues (e.g., the educational level of incoming students or community and social barriers to learning). With respect to funding, NCLB makes no distinction among schools in various years of improvement, except to advise that SEAs must prioritize their Title I allocation to schools with the greatest need. In other words, schools in the restructuring phase are of the highest priority, but there is no acknowledgement in NCLB or in related guidance that the cost of implementing restructuring options may be considerably higher than sanctions and strategies for improving schools at different stages of the accountability system.

Compounding the possibility that restructuring options may cost more than other types of intervention is the fact that there is considerable variance across states with respect to the amount of money available to support district and school improvement efforts. Furthermore, SEAs are struggling to meet the competing demands placed upon them by NCLB - to meet their regulatory mandates, to serve as a conduit for federal funds, and to now develop a support mechanism for school improvement - and they are doing so in the face of budget shortfalls and decreasing human and resource capacity. States are required to "set aside" four percent of their Title I funds for school improvement (CEP, 2006). Depending on a state's overall Title I allocation and the number of schools identified for improvement, the actual amount of supplemental funding available to support schools is quite different (Sunderman & Orfield, 2006). Table 1 provides a snapshot of a few states' overall Title I allocation and funding for school improvement, based in part on the number of schools identified for improvement.

Table 1. Approximate Title I School Improvement Funding for Schools Identified for Improvement for a sample of states, 2005-06 school year

State	2005-06 Title I	4 % Set Aside	Number of	SI
	Allocation		Eligible Schools	Resources/School
СТ	100,363,873	4,014,554	102	\$37,390
FL	648,779,724	25,951,188	1016	\$24,265
MA	207,264,304	8,290,572	570	\$13,872
ME	45,515,820	1,820,632	148	\$11,686
NY	1,205,156,210	48,206,248	546	\$83,875

In my discussions with state leaders, researchers, policymakers, and U.S. Department of Education officials regarding the use of restructuring as an option for turning around low-performing schools, there is growing consternation that states are allowing, and districts are choosing the least intrusive restructuring option – the "other option" – rather than undertake a more fundamental and dramatic approach such as contracting with an education management organization or replacing all the staff and principal. Logically, the choice of the least intrusive option seems to make sense, as it allows the school to continue to function, it doesn't entail closing or much shifting of staff, and is often the most politically tenable option. However, I think that states and districts may also be acting as economically and rationally oriented actors and realize (at least internally) that the actual cost of engaging in true restructuring across significant numbers of schools is simply impossible given the allocation of Title I funds and other state resources and demands.

Whereas supplemental education services and choice can be considered efficient regulatory mechanisms, in that they entail a redistribution of resources and lead to (hopefully) improved overall benefit (economically and with respect to total equity) with minimal cost, it is unknown if the use of restructuring options to improve student performance is an economically efficient approach. However, if state and district leaders are indeed using their own mental calculus to make decisions about restructuring options, then it is critical that policy makers have some way

to calculate cost and not leave this information to be computed individually. In an open market, businesses "restructure" due to market conditions and the goal is to use restructuring to build a viable company capable of making a profit. In the educational sphere, districts and schools have no equitable economic goal (e.g., making a profit) to motivate and create the urgency to undergo significant restructuring. A potential flaw in NCLB is its reliance on restructuring as the final regulatory and accountability mechanism without allocating the resources (e.g., through Title I) or providing the financial context and incentives for schools to engage in full restructuring.

Perhaps if national policy makers, state legislatures, SEAs and districts understood the full cost of restructuring and were able to see the potential long term benefits of a costly restructuring process, then they would be more willing to promote and use restructuring as a viable option.

Cost-Effectiveness Studies in Education: Use and Practicality

Compared to related areas in social policy (e.g., health, welfare, housing), the field of education is lacking in its use of cost-effectiveness studies to inform policymaking and decision-making (Hummel-Rossi, B., & Ashdown, J, 2002, Levin, H. M., 1988, Levin, H. M., 2001, and Rice, J.K., 1997). Economic analysis and cost-effectiveness techniques provide the analytical tools to consider effects and costs, yet there is a dearth of cost-effectiveness studies. This leads to the question and paradox, eloquently posed by Rice, as to "why such a seemingly relevant form of analysis has been so underutilized in the field of education" (p. 309).

There are a number of reasons that help explain why cost-effectiveness studies are not more widely used in education. First, there are difficulties in accurately measuring the costs associated with different interventions (Rice, J. K., 1997) and in conceptualizing the central aspects of certain interventions and their intended effects (Hummel-Rossi, B., & Ashdown, J, 2002). Second, there is an ongoing debate as to how to best measure an intervention's effects and how to accurately attribute an intervention's potential benefits over time. For this reason, cost-effectiveness studies are typically preferred over benefit-cost analysis (although Levin's (2007) recent analysis of high school graduation rates illustrates the power of a well conceived benefit-cost analysis). Third, there is a lack of understanding among education leaders as to how cost-

effectiveness studies can be used to inform policymaking (Hummel-Rossi, B., & Ashdown, J, 2002). And fourth, educational leaders and researchers in the field of education may not be trained in economic methodology (White et al., 2005).

The barriers to using and conducting cost-effectiveness studies in education are not insurmountable. In the context of studying restructuring options, the most challenging issues lay in how effects are measured and in trying to design an evaluation that is experimental or quasi-experimental. Well-known cost-effectiveness studies in education involve targeted interventions that are relatively defined and that allow for individual students to be followed over time (Levin, 1988). In the context of restructuring, it may be difficult to follow students over time, or to be able to attribute improved student performance to a particular restructuring process. As a result, it will be important to articulate the goals of the restructuring process and to use those goals to inform how "effectiveness" is measured.

A cost-effectiveness study is preferable to a feasibility study or a benefit-cost analysis because state leaders need to distinguish among multiple restructuring options, the cost of each option, and the actual and potential effect. I use the protocol for cost-effectiveness studies in education outlined by Hummel-Rossi and Ashdown (2002) to structure my thinking and potential design of a cost-effectiveness study of restructuring options. I use the ingredients approach to assessing costs as a way to consider the potential costs of each restructuring option. The following section explores the feasibility of a cost-effectiveness study followed by a discussion of how efficiency and equity are impacted by restructuring as a regulatory mechanism.

Framing a Cost-Effectiveness Evaluation of Restructuring Options

Measuring costs. Estimating and measuring the costs of restructuring requires that we identify the ingredients that are together necessary for the implementation of the particular option. Engaging in restructuring involves significant opportunity costs. Rice and Malen (2003) argue that reconstitution (one form of restructuring) "is a human capital reform grounded in the assumption that upgrading the human capital in low-performing schools will improve the performance of those schools" (p. 635). In other words, while it may not seem like much of a cost to replace school staff from a purely monetary standpoint, there may be significant human costs associated with the reorganization. Rice and Malen distinguish three types of human costs: task costs (opportunity costs as traditionally defined), social costs (e.g., loss of community trust, collegiality and relationships needed to work together), and psychological costs such as depression, stress, or self-efficacy. Rice and Malen argue that the overall human costs of reconstitution may in fact detract from the overall goal of reconstitution – that is, the creation of positive human capital capable of improving school performance.

Using the ingredients approach and incorporating Rice and Malen's concept of human costs (in addition to opportunity costs, I provide a sketch of the potential areas for which the different restructuring options will require additional costs. By additional costs, I mean costs in addition to the regular costs associated with operating the school under regular conditions (e.g., without restructuring) or costs that are transferred (for instance, from the low-performing school the charter school) and remain constant. Table 2 outlines the ingredients and lists whether or not implementing the restructuring option will entail costs in each ingredient⁴.

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⁴ *Note – This analysis is based on my own knowledge of and experience with local restructuring options. Further iterations of this table will require confirmation and input from SEA officials.

Table 2. Potential Cost Areas for Restructuring Options

Cost Ingredients	Chartering	Turnarounds	Contracting	State Takeovers
Infrastructure	Yes – New charter school will require new infrastructure	No	Yes	No
Capital – Building Costs	Yes – if existing building can't be used	No	No	No
School-level teaching staff (Salary)	No	No	No	No
School: Administrative staff (Salary)	No	No	No	No
School staff – opportunity costs	No	Yes – High costs	No	Yes – High costs
School staff – human costs	Potentially, depending on configuration of staff.	Yes – High costs	Potentially, depending on configuration of staff.	Yes – High costs
District Opportunity Costs	No	Yes – training and oversight of turnaround schools	Yes – New responsibilities in working with EMOs	No
District Training	No	Yes – training and oversight of turnaround schools	Yes – Potential training on working with EMOs	No
District staff – human costs	Yes	Yes	Yes	Yes – High costs
District Costs (other)	Yes – potential loss of existing staff due to decreased funding	No	Yes – potential loss of existing staff due to decreased funding	No
State Opportunity Costs	Yes – Increased state responsibility and oversight of charter schools	Yes – increased involvement with district and oversight of turnaround schools	Yes – Increased responsibility and oversight of EMOs	Yes – High costs
State Training (capacity building)	Potentially – if no exiting capacity re: charter school administration	Yes – training on how to work with district officials re: turnarounds	No	Yes – High costs
Total - Summary	Bulk of cost associated with opening a charter (infrastructure and materials) and state-level opportunity costs.	No infrastructure and building costs, but potentially high school-level opportunity and human costs. Also high state and district opportunity and capacity building costs.	Contracting involves the lowest school or within school costs, but may have significant district and state costs	Extremely high human costs for schools and districts, and capacity issues for SEAs
Other factors	Political opposition –teacher unions	Community and teacher union opposition	EMOs are often an unknown entity – political opposition	States lack capacity to do this at scale
Effectiveness	Mixed – unknown as a restructuring option	Unknown and difficult to measure – the scale of turnarounds varies	Mixed – but is being used as a restructuring option	Poor

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Assessing and analyzing costs. Assessing actual costs for each option will depend on the specific context and cost features of states and districts. Determining opportunity costs and human costs is best done though interviews and valuing the cost of a particular activity according to its market value. This chart does not include factors relate to time and discounting, as some costs (e.g., related to building and infrastructure) must be discounted over time and their costs may in fact be derived from existing district budgets. While a detailed estimation of costs (actual dollar costs) would be useful, this exercise and template illustrates the high costs of each restructuring option and the differences in who bears the burden of the costs.

For instance, the chartering option appears to be the most attractive and feasible if building space is available and infrastructure costs can be minimized. The chartering option involves little opportunity or human costs to school staff, as teachers in charter schools will apply to work in the school and the new charter will be able to develop a new culture distinct from the failing school. If the state has an existing charter school infrastructure (to monitor and administer charters), then the costs to the state are likewise minimal. However, charter schools are not frequently being used as a restructuring option, due to political opposition and district-level fear of losing resources and staff.

The monetary cost of using turnarounds and state takeovers to restructure schools appears low; however, there are significant hidden opportunity and human costs associated with these options. Firing staff and/or taking over a school (often against the will of the district and school) by the state tend to lead to animosity, stress, distrust, and resistance on the part of school staff⁵. Even in situations where the majority of staff are fired, or required to reapply for their jobs, there often remains high levels of resentment. Additionally supporting and monitoring turnarounds and state takeovers requires significant time and effort (opportunity costs) for state officials and often requires that officials be trained in different skills or take on new responsibilities in addition to existing roles.

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⁵ I don't have the citations on hand – however, my discussions with state officials (in New York in particular) show that state takeovers lead to resentment. The recent takeover of Hope High School in Providence (which also included the firing of teachers) led to significant hostility as well.

The contacting option is similar to the charting option, in that responsibility for the school is granted to an organization outside of the traditional school system – an Educational Management Organization⁶. If the district or SEA has the capacity to contract with and manage the EMO, then contracting is the most cost feasible option. However, like charting, there is often political opposition to using EMOs because they are "outside" of the system and may ask for waivers from collective bargaining agreements.

For each restructuring option, the state or district experiences significant opportunity costs and is required to take on new and often unfamiliar roles. Turnarounds and state takeovers are even more costly to implement, taxing the capacity of state and district officials and involving significant human costs at the local school site. While I have not provided actual cost figures for each option, it is clear that the federal Title I allocations for school improvement in identified schools would not cover the initial costs of any of the options. Furthermore, the human costs are difficult to offset and may ultimately lead to failure among schools using the turnaround or state takeover options, regardless of the cost expended by the state.

Measuring effects⁷. There are multiple ways to measure the effects of the restructuring options. Measures depend on how one defines the goal of restructuring and the intended outcome. The indicator that matters most to SEA accountability officials and which is reported to the public is the school's accountability status – whether or not the school is able to make AYP and shift its trajectory towards continual improvement. Using AYP as a single measure is overly simplistic, especially if agree with Rice and Malen's assumption that school improvement is ultimately about building human capital – a capacity building exercise. While most SEAs strive to "build the capacity of districts and schools", capacity building is a difficult concept to measure – it is clear when a school has capacity, but it is difficult to measure a school's growth and development. Without a uniform way to measure effectiveness as a function of improved

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⁶ Edison Schools and KIPP are the most well known examples of EMOs.

⁷ There is limited evidence on the effectiveness of any of the restructuring options. While this fact brings into question how and why the options were included in NCLB in the first place, the reality is that there is no single solution that has been found to work and lead to dramatic improvement in schools at any level of scale.

capacity, the most useful and meaningful way to understand effectiveness with respect to restructuring is to use AYP (making AYP) as the primary indicator and outcome.

Implications. Imagine a situation in which state leaders, or a group of policy makers, could sit together and have a discussion framed by information on the estimated costs of various restructuring options and evidence on their effectiveness across a wide range of situations and states. Such a situation could lead to policy and decisions about how to access the resources and political will to engage in dramatic reform. Policymakers and state leaders do have these discussions, but they do so without information on costs or effectiveness.

If we can assume that there are relatively high costs associated with each restructuring option — costs that go far beyond the federal Title I allocations for states and set aside for school improvement activities — then it is clear why states and districts are electing to use the least intrusive restructuring option. The regulation to "restructure" comes without truly adequate funding and the existing public education "market" provides little internal incentive to engage in restructuring actions, even if restructuring might lead to greater efficiencies and improved equity.

Considerations for Efficiency and Equity

Restructuring is one of number of regulatory sanctions and incentives described in NCLB and enforced through the threat of removing or withholding Title I funding from districts and schools. As a regulatory mechanism designed to address inefficiencies and improve overall equity among the public school system, it is useful to ask the following questions:

- What is the impact of Restructuring Options on efficiency?
- What is the impact of Restructuring Options on equity?

An example. Consider a hypothetic situation concerning the government's role in controlling pollution. In this example, the regulatory agency has passed a law and related regulation that sets a standard for the emission of Pollution X. The standard is set at 75 percent and firms are required to keep their emission levels above 75 percent. Firms falling below this standard are required to improve, or face sanctions and fines. High performing firms may already be above

the 75 percent standard or be able to quickly achieve this threshold. Low-performing firms will have to pay fines and if unable to reach the standard may go out of business. Firms are given the option of restructuring in order to remain competitive and rebuild their business.

In this example, firms that are producing a product that requires excessive pollution are, in the competitive market, able to charge prices at or above marginal cost and which allow them to remain competitive. Unless other firms can produce that same product for lower marginal cost, consumers will continue to pay the market price. As a result, firms with different inputs are able to charge more or less depending on the effort (and the marginal cost) needed to turn those inputs into a desirable product.

Let's turn our attention to schools – In the public school system, schools must meet certain performance standards, as set by state and federal law. For arguments sake, consider this standard to be that 75 percent of students must be proficient or above on the state assessment. Schools failing to meet this standard face sanctions or potential loss of Title I funds for not meeting performance levels. Some schools are able to quickly meet the standard, while others are not so fortunate. Truly low-performing schools unable to make any progress towards meeting the standard are forced to close or restructure. This situation appears similar to that seen in other regulated markets – our pollution example; however, there are significant differences.

In the pollution example, firms with higher "costs" associated with the production of a certain product are able to charge higher prices, assuming demand. Similarly, schools with low-income students (and hypothetical higher costs associated with bringing those students to standard) receive Title I funds to work with their product (the student). However, what happens if the marginal cost of "producing" a low-income student into a high performer is significantly higher than the marginal cost needed to produce a similar product among high-income students? Do schools with low-income students have the ability to sell, or price their school, at the point needed to maintain the appropriate marginal cost?

In a hypothetical free and open educational market meeting the initial criteria of economic efficiency, low-income families would be unable to pay the price needed to attend a school with

the appropriate level of educational services. Even if the supply of such schools existed, that supply would be met with the uninformed (but self-interested) demand of high-income families. An economically efficient educational market would lead to greater inequity than exists in the current educational system – this is the market failure that calls for government intervention. An economically efficient market will extenuate existing inequality in situations where low-income individuals require a higher level of services/goods than high-income individuals. Pareto efficiency is not achieved in such a situation – an efficient market would be a market where all individuals received the appropriate educational services at the appropriate marginal cost for that service.

Due to existing economic inequality, it is impossible for a school in an education market to set a price *P that would be affordable to low-income parents and meet the marginal cost needed to fully educate the low-income student (e.g., move to proficiency)⁸. The real question is how the government could regulate, or provide incentives, for communities to be willing to "pay" for the true (and ultimately higher) cost of education low-income students.

In sum, many of the policies and regulations of NCLB, including the restructuring options, currently and will continue to have little impact on efficiency or equity. When restructuring options are fully funded and communities address the issue of adequate funding for all students (addressing the central flaw in the education market), it may be possible to close the achievement gap. Illustrating the potential cost-effectiveness of restructuring options is one means of increasing the information and choices at the disposal of policymakers and education leaders and creating a bridge towards increased public and political will to make difficult decisions. The charting and contracting options have the potential to improve efficiency and equity if they are funded and supported at appropriate levels. Whether or not we can figure out the "appropriate" levels and then find the political will to make this effort is still an open question.

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⁸ I understand that my entire argument is based on the premise that it takes "more" money to educate low-income students. There are those who would vehemently argue with me on this point, but in the same breath fight to retain Title I funds – the irony.

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