Financing Education for Children with Special Needs

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Introduction

With the passage of PL 94-142, the Education for all Handicapped Children Act, now the Individual with Disabilities Education Act (IDEA), in 1975, states and local school districts were mandated to provide a free and appropriate public education (FAPE) to all children with disabilities.

Localized multi-disciplinary teams were charged with developing programs of education to meet the obligation of FAPE without regard to the cost of these services, thus creating a fiscal burden shared by federal, state and local educational authorities. While disability advocates continued to apply pressure for more and better services to students with disabilities, means to fund these services in a balanced manner created significant challenges for policy makers. Thirty-five years later we find the field continuing to grapple with funding issues in the context of an equitable and adequate educational good for all students.

This chapter provides a review of general conceptions of equity and adequacy in school finance and within the context of special education funding. Further development of both regular education and special education law, reauthorizations of the Elementary and Secondary Education Act (ESEA), No Child Left Behind Act (NCLB) and IDEA and how they influence service delivery are explored. Additionally, we outline the conceptualization of financing public educations systems as a state responsibility. Next we discuss approaches to determining the additional expenditures on special education and additional costs of providing special education services and review the evidence on special education spending and cost. Finally, we review state policies for financing special education programs and the literature on various features of those policies.

Conceptions of Equity and Adequacy

In this section, we review general concepts of school funding equity, equal educational opportunity and educational adequacy. Authors in school finance often attempt to separate too quickly from the relevant broader context, the position of children with one or more classified disabilities from the system as a whole and from the conceptual frameworks of equity and adequacy. To some extent, as we will discuss later in this chapter, this choice is driven by the separate federal legal framework governing special education, versus those governing the system as a whole.

Equity can be viewed either in terms of fiscal inputs alone, in terms of programs and services provided with those financial inputs, or in terms of outcomes attainable with specific inputs, programs and services. Further, equity can be, but is not by definition, linked to educational adequacy where the level of outcomes attainable with given inputs, programs and services is characterized as "adequate" or not. Finally, while it should go without saying, generalized conceptions of equity and adequacy are applicable across all children.

Equity of Nominal Fiscal Inputs

Equity of nominal fiscal inputs to schooling concerns only whether or not schools and school districts have access to equal dollar inputs - equal revenues and/or expenditures per pupil - regardless of their location or of other attributes of the district or children they serve. On the one hand, evaluating equity of nominal fiscal inputs is convenient and straightforward because nominal dollar values are readily available.

But, it has become clear over time that this approach does not adequately characterize either the programs and services available to children across settings and locations or the outcomes attainable. For example, in a geographically and economically diverse state such as Illinois, New York, Texas or California the costs of putting comparable quality teachers in front of classrooms filled with 20 children each can vary widely from one end of the state to another.[1] Further, it would clearly be inappropriate to provide the same level of financial resources for children having severe disabilities as for the "average" child in a school district, because the appropriate programs and services required for children with disabilities may have substantially different costs.

Equity of Programs and Services

[1] Taylor and Fowler (2006) note: "In California, New York, Texas, West Virginia, Pennsylvania, Virginia, Illinois, and New Mexico, the education dollar can stretch at least 40 percent further in one part of the state than in another." (p. v) Clearly, children's access to a comparable quantity of comparable quality teachers is a more relevant equity concern than dollar inputs alone. Evaluation of nominal fiscal inputs may still be of some value, however. If it can be shown that even nominal fiscal inputs are disparately distributed and that those locations and children having fewer nominal fiscal inputs face higher costs of true equity, then it can be inferred that the actual disparities are even greater than the measured nominal disparities.

An alternative perspective on equity is that each child, school and school district should be provided sufficient fiscal inputs in order to be able to provide equal, or the same programs and services to children. That is, to provide a specific quantity and quality of teachers, quality of classroom space, materials, supplies and equipment regardless of where in the state a child attends school and regardless of the attributes of children who attend any given school. This approach can be a significant step forward over evaluating fiscal inputs alone.

Clearly, it is more relevant to determine that each child across a state has access to similarly qualified teachers and his or her own box of crayons, etc., whether that box of crayons costs $1.00 in one location or $1.25 per box in another or whether the salary required for hiring the teacher is $45,000 in one location or $65,000 in another. But this approach assumes only that each child should receive the same programs and services, regardless of any differences there might be in: (a) the individual needs of students in order to achieve desired outcomes, (b) the collective needs of the student population in order to achieve desired outcomes, or (c) the setting within which the resources must be provided in order to achieve desired outcomes. Regarding setting, for example, it may be infeasible to organize children into symmetrical classes of 20 each per grade level in remote rural locations. Setting alone may constrain the equal provision of programs and services.

Equity of programs and services requires only that students - regardless of their individual differences - have access to the same programs and services. But in the case of children with disabilities, there may exist specific additional programs, services and related services that would be more appropriate to meet their needs.

Equal Educational Opportunity

Differentiating programs and services across children requires that we address two key questions: Who is in need of differential programs and services? And how different should those programs and services be? Equal educational opportunity concerns not merely the equal provision of programs and services (inputs), but rather, the provision of programs and services which provide all children across the state equal opportunity to achieve comparable educational outcomes. This differs from an equal provision of inputs - programs and services - because equal educational opportunity acknowledges that the costs of achieving specific educational outcomes vary not only as a function of the different prices of inputs, but also as a function of the different sets of inputs that may be needed for one group of children versus another, educated in one type of setting versus another.

Under an equal educational opportunity framework, all children are assumed equal regardless of race, language proficiency, poverty status or disability status. As such, our expectations of educational outcomes should be common across all children. That is, the “equity object” in question is the outcome expectation, which should be accessible to each and every child. The “cost” of attaining the equity object - educational outcomes - for each child varies by location, setting and child.

While some factors more strongly affect the "cost" of attaining outcomes, the various factors that influence "cost" interact in important ways, leading to an overall "relative cost" of equal opportunity to achieve outcomes for each child in each setting. Ignoring these differences in costs when providing financial inputs to schools leads to disparity across children in the ability to attain, and ultimately in the attainment itself, of equitable educational outcomes. Even "equal" nominal financial inputs across substantively different settings and children leads to unequal opportunities.

While the pure conception of equal educational opportunity requires differentiation of inputs, programs and services to the extent necessary to achieve equal educational outcomes, practical applications often accept the logic of equal educational opportunity but otherwise fall short on full provision of equal opportunity. For example, financing for special education programs or for children with limited English language proficiency may on average be greater than for the hypothetical "average" child, and programs and services more intense, but rarely if ever are such resources scaled up to the point that equal outcomes are attainable.

Educational Adequacy

Educational adequacy concerns the level of educational outcomes that should be attainable either by all children in a state in the aggregate or by children according to their individual needs and school setting. In the aggregate, a state's education system could be deemed adequate merely on the basis that a sufficient number of students overall achieve an adequate educational outcome - for example, 80% of all students, statewide scoring proficient or higher on state assessments. That is, adequacy in isolation means only that a sufficient number of students perform sufficiently well, regardless of who may or may not be left out and regardless of the extent that some children far exceed the "adequacy" threshold. Significant equity concerns may arise when statewide adequacy is the exclusive focus.

At the intersection of *educational adequacy* and *equal opportunity* lies the notion that all children, regardless of their individual differences or where they attend school in a state are deserving of *equal opportunity* to achieve *adequate* educational outcomes. This notion is an extension of *equal educational opportunity* as explained above. Where *equal educational opportunity* provides that each child have equal opportunity to achieve any given set of outcomes, *equal opportunity* linked with *adequacy* provides that each child have equal opportunity to achieve a specific set of adequate educational outcomes.

Caught between IDEA (Due Process) and NCLB (Equitable Outcomes)

Here we provide a brief synopsis of position of children with disabilities - in terms of legal frameworks for understanding equal educational opportunities - under the *due process* oriented IDEA framework and under the outcomes oriented NCLB. Albeit an oversimplified delineation (as framed here), differing perspectives regarding rights to access least restrictive environments and free and appropriate education versus

obligations to close outcome gaps between subgroups lead to very different assumptions regarding financial obligation of states and local public school districts. These assumptions are further complicated by a recent string of case law which potentially increases state and local school district financial obligation to support costs of private placements.

The NCLB's purpose is "to ensure that all children have a fair, equal, and significant opportunity to obtain a high-quality education and reach, at a minimum, proficiency on challenging State academic achievement standards and state academic assessments."[2] One of the goals of NCLB is to meet "the educational needs of low-achieving children in our Nation's highest-poverty schools."[3] The Act also provides as one of its goals the closure of "the achievement gap between high- and low-performing children, especially the achievement gaps between minority and nonminority students, and between disadvantaged children and their more advantaged peers."[4]

IDEA's purpose is "to ensure that all children with disabilities have available to them a free appropriate public education that emphasizes special education and related services designed to meet their unique needs and prepare them for further education, employment, and independent living." [5] The statute also seeks to protect the rights of students of disabilities and their parents.[6] The statute also tries to "assist States, localities, educational service agencies, and Federal agencies to provide for the education of all children with disabilities."[7]

IDEA and NCLB have ostensibly different and conflicting goals. IDEA requires school districts to provide students with a basic floor of education as defined by the Individual Education Plan (IEP). The educational goals are based upon the student's ability as determined by the student's multi-disciplinary team. By contrast, NCLB provides a framework in which all children must be provided equal educational opportunity. Congress and the Department of Education have attempted to harmonize IDEA with NCLB.[8] The 2004 authorization of IDEA requires all IEP's to maintain "present levels of *academic* achievement and the *academic* achievement goals," regardless of the disability.[9]

In an apparent attempt to overcome the conflict between NCLB and IDEA, the 2004 reauthorization of IDEA also requires that children with disabilities participate in state assessments promulgated under NCLB, but with accommodations where appropriate. NCLB regulations "acknowledge the need for flexibility when assessing children with disabilities and now specify three kinds of alternative assessments of

[2] 20 U.S.C. § 6301. Schools accepting Title I funding are required to comply with the NCLB. *See* 20 U.S.C. § 6311.
[3] 20 U.S.C. § 6301(2) (2008).
[4] *Id*. § 6301(3).
[5] 20 U.S.C. § 1400(d)(1)(A) (2010).
[6] *Id*. § 1400(d)(1)(b).
[7] *Id*. § 1400(d)(1)(C).
[8] Dixie Snow Huefner, *Updating the FAPE Standard Under IDEA*, 37 J. OF LAW & EDUC. 367, 372 (2008).
[9] *Id*. (emphasis in the original).

reading and math flexibility."[10] IDEA 2004 also contains "parallel alternate assessment provisions in IEP requirements and elsewhere in the statute."[11] While assessments of children with disabilities may influence school or district accountability status under NCLB, the extent and type of accommodations required for some children may significantly compromise the reliability and meaningfulness of those assessments as a true measure of "adequate" educational outcomes for children with disabilities. In our view, this attempted link between NCLB and IDEA frameworks falls well short of fully integrated the legal frameworks of equity and adequacy for children with disabilities and the general population of which they are a part.

School Finance: A State Responsibility

While IDEA and NCLB provide conflicting federal statutory guidelines, most concerns over school funding equity and adequacy are governed under state constitutions as interpreted by state courts, and as acted upon by state legislatures. State school funding formulas, including components of those formulas pertaining to special education are primarily the responsibility of the states. In this section, we explain how the financing of equal educational opportunity has evolved over time to become primarily a state responsibility. We focus on the role of state school finance litigation emphasizing state constitutional obligations to provide funding to local public school districts in order to first, balance differences in local fiscal capacity to provide educational services, and second to target resources to student populations with greater needs. We end this section with a discussion of specific state school finance cases in which courts have articulated a strong state obligation to provide differentiated funding toward achieving equal educational opportunity.

Overview of Waves of Litigation

Many scholars describe school finance litigation as occurring in three major waves. The first wave, in the late 1960s and early 1970s, entailed challenges to school funding equity in federal court and was based on the Equal Protection Clause of the 14th Amendment to the U.S. Constitution. It ended abruptly with the Supreme Court's ruling in *San Antonio Independent School District v. Rodriguez* in 1973. The Court decided that education is not a fundamental right under the U.S. Constitution and that wealth is not a "suspect classification," and it therefore allowed state systems whereby school funding varied across local school districts as a function of local control over property taxation.

The second wave, which emerged concurrently with the first, focused on state constitutions rather than the federal constitution. Plaintiff groups argued that disparities in funding across school districts – largely resulting from differences in property tax revenues – ran afoul of state equal protection and education clauses. This approach had limited success, with courts in six states overturning their school finance formulas while

[10] *Id.*
[11] *Id.*

13 other state formulas were upheld (Baker, Green & Richards, 2008, p. 86). The beginning of the third wave, which was also based on state constitutional provisions, is usually marked by the 1989 Kentucky Supreme Court's decision in *Rose v. Council for Better Education*. That case shifted the focus toward "adequate" education funding, where adequacy was defined in terms of funding sufficient to produce adequate student outcomes. *Rose* was followed by several successful third wave challenges throughout the 1990s and early 2000s.[3]

Nevertheless, the successes of the 1990s have given way to some judicial reluctance to engage (Welner & Gebhardt, forthcoming). From 2007 through 2009, there were some signs of a waning of political will on the part of some state courts to rule against state legislatures or to maintain oversight of school funding as part of existing remedial processes. State courts in Arizona (*Espinoza v. State*, 2008), Oklahoma (*Oklahoma Education Association v. State*, 2007), Missouri (*Committee for Educational Equality v. State of Missouri*, 2009) Nebraska (*Nebraska Coalition for Educational Equity and Adequacy v. Heineman*, 2007), South Dakota (*Davis v. State of South Dakota*, 2009),[4] and New Jersey (*Abbott v. Burke*, 2009) upheld as constitutional their states' existing state school funding formulas, rejecting claims by plaintiffs that those funding systems deprive poor and minority children of much-needed resources. While the degree of funding inequities and inadequacies varies widely in these six states, the overall sense from the decisions rendered in these cases was one of judicial retreat and deference to the politics of legislative decision-making.

One might expect such judicial timidity to have increased following the sharp economic downturn that began in mid-2008 and placed increased scrutiny on state budgets and expenditures across the board, and on elementary and secondary education spending in particular. However, three decisions handed down in late 2009 and early 2010 suggest that the earlier trend toward retreat has not continued. In *Lobato v. State* (2009), the Colorado Supreme Court held an adequacy challenge to be justiciable and sent the case back to the trial court. In *McCleary v. State* (2010), the trial court in the Washington found that state's finance system unconstitutional because it is "not correlated to what it actually costs to operate this State's public schools" (p. 53, para. 220). And in *Connecticut Coalition for Justice in Education Funding, Inc. v. Rell* (2010), the Connecticut Supreme Court decided that the issue of whether education funding legislation makes "suitable provision" for education is justiciable.

Recent special education cases with significant financial implications

A handful of recent cases have raised new questions regarding the financial obligations of local public school districts to provide financing for services for children with disabilities. In *Forest Grove School District v. T.A.*,[12] the Supreme Court held that IDEA authorized reimbursement of private-education tuition where the school district had failed to provide that child with FAPE and the private education was appropriate. The Court found in this manner even though the school district had not provided the child

[12] 129 S.Ct. 2484 (2009).

with special services.[13] By finding that the child was ineligible for special-education services and refusing to provide him with an IEP, the district failed to offer him FAPE as required by the statute.[14]

The potential influence of IDEA on state school finance systems

While Forest Grove in particular may place pressure on local school districts to pay the high cost associated with out-of-district placements, the case does not necessarily place any increased burden on states to ensure that local public school districts have the available resources to cover those costs. One case currently progressing through the federal courts attempts to press the Commonwealth of Pennsylvania to alter its special education funding formula to ensure that poorer districts with very high concentrations of children with disabilities have sufficient resources to comply with IDEA. According to Weber (2009):

> "One court has upheld a claim that the Pennsylvania funding formula, which requires the state to allocate special education funds based on a school district's overall average daily membership, rather than on the district's special education needs or ability to provide appropriate education (combined with the guarantee that the district not receive less special education money than in year before and a mechanism for funding tuition for approved private schools separately) violated due process rights, section 504, and the Equal Educational Opportunity Act and caused the plaintiffs, who were parents of special education students in the district, injury in fact." (p. 34) [15]

This particular case hinges on an argument that the Pennsylvania special education finance formula, and the way in which the formula built on top of disparities in general education funding, leads to substantially unequal opportunities across Pennsylvania school districts with regard to providing individualized educational programs compliant with IDEA.

Understanding "Costs" & "Additional Expenditures"

In order to advocate that opportunities for children with disabilities should not only be equal across children with disabilities, but should also be adequate with respect to desired educational outcomes and appropriate programs and services, one would need reasonably precise estimates of the costs of achieving adequate educational outcomes and/or providing appropriate programs and services. In this section we evaluate the

[13] *Id*. at 2496.
[14] *Id*.
[15] C.G. v. Pa. Dep't of Educ., 547 F. Supp. 2d 422 (M.D. Pa. 2008), *on reconsideration*, No. CIV.A. 1:06-CV-1523, 2008 WL 4820474 (M.D. Pa. Nov 03, 2008) (holding that general-education student plaintiff lacked standing).

knowledge base regarding the additional costs of providing services to children with disabilities. We link "cost" conceptions back to equal educational opportunity conceptions, noting that "cost" analysis, per se, for children with disabilities has traditionally taken either of two approaches - estimation of the average expenditures of average existing programs and services for children with disabilities in general and by need and placement, and more recently, estimation of hypothetically "adequate" staffing and non-staffing resources for providing statutorily compliant special education programs and services. Notably absent in cost analysis of special education programs and services are analysis of the cost of producing adequate educational outcomes, or closing achievement gaps between children with mild to moderate disabilities and other children.

Measuring Education Costs

Evaluating educational opportunity and educational adequacy requires estimating the costs of achieving adequate educational outcomes across varied settings and children. There exist two general categories of methods for determine the differences in costs of providing equal educational opportunity:

> Input-oriented: The first involves prescribing the resource inputs necessary for providing basic educational services and special educational services. Inputs required for service delivery may either be prescribed by panels of local constituents, practitioners and experts, or by outside expert consultants. This approach leads to estimates of the differential costs of recommended educational services for different settings and children, the intent being that the differential services (and resulting cost differentials) recommended will aid in the attainment of common educational outcomes.

> Outcome-oriented: A more direct approach involves estimating a model of the statistical relationships among existing spending levels (education cost function), existing outcome levels and various factors that influence the ways in which current spending is associated with current outcomes. That is, to use existing data to tease out underlying differences in "costs" of producing specific levels of education outcomes across settings and children.

Ideally, if one wished to estimate the "costs" of providing children with disabilities the opportunity to achieve defined, measured outcome levels, one would need sufficient data on children with varied levels of disabilities meeting the defined outcome standards, and sufficient data on expenditures on those children. That is, to conduct outcome oriented analysis, one needs sufficiently detailed outcome data and sufficiently accurate spending data, as well as all relevant information on students' individual needs.

Such analyses can prove problematic for estimating costs of achieving common outcomes for children requiring substantial accommodations on the assessments that measure those outcomes. Several outcome based models of education costs do include estimates of the additional spending associated with achieving common outcomes for children with disabilities, but there has been little attempt as of yet to evaluate the consistency of those findings. Further, most such analyses include either a single measure of the percent of children classified, or a bifurcated measure indicating high-cost-low-incidence, and low-cost-high-incidence disabilities.

More commonly, studies of additional costs for special education students evaluate either: (a) existing spending on existing programs and services, regardless of outcomes achieved,; or (b) the summed input costs of recommended resources for providing programs and services. Studies of expenditures on existing programs and services generally do not evaluate whether those existing programs and services produce adequate educational outcomes, or whether those programs and services would be considered adequate or appropriate. Rather, such students merely characterize the average of "what is." Alternatively, some studies of educational costs attempt to estimate the costs of implementing programs and services that should be adequate, or appropriate, or a hypothetical "what should be." But, these studies rarely follow up on evaluating whether the programs and services produce adequate student outcomes. Alternative, one could attempt to identify high quality existing programs and service delivery models that produce adequate student outcomes for children with one or more specific disabilities, and determine the costs of providing those programs and/or service delivery models.

Historical Efforts to Evaluate Special Education Costs & Spending

Over the decades following initial adoption of IDEA (as P.L. 94-142) there have been a handful of national studies of special education spending. Most recently, the Special Education Expenditures Project (SEEP), conducted by the Center for Special Education Finance (CSEF), run by the American Institutes for Research (AIR), studied past special education expenditures, in order to identify the "additional expenditures" on special education students in the late 1990s and early 2000s.

Findings of the SEEP studies published in 2005 included:

- The total spending to provide a combination of regular and special education services to students with disabilities amounted to $77.3 billion, or an average of $12,474 per student. Students with disabilities for other special needs programs (e.g., Title I, ELL, or gifted and talented students) received an additional $1 billion, bringing the per-student amount to $12,639.

- The additional expenditure to educate the average student with a disability is estimated to be $5,918 per student. This is the difference between the total expenditure per student eligible for special education services ($12,474) and the total expenditure per regular education student ($6,556).

- Based on 1999–2000 school year data, the total expenditure to educate the average student with disabilities is an estimated *1.90 times* that expended to educate the typical regular education student with no special needs. This ratio has actually declined since 1985, when Moore et al. estimated it (1988) to be 2.28.

That is, the average additional expense per special education child has remained somewhat consistent, declining slightly, at about twice the average expense per "regular" education child. The authors of SEEP explain that they have evaluated the "additional expenditures" associated with special education rather than "excess costs," the language of earlier special education spending studies (Chambers, Parrish and Harr, 2004). As discussed previously, additional expenditures are merely the amount that public schools have spent, historically, on special education students. Additional expenditures are not costs, because no specific quality of service exists, and because no outcome standard is associated with the spending patterns (other than the average of current practice).

In the aggregate, the SEEP studies determined that local education agencies received $3.7 billion in federal IDEA funding in 1999–2000, accounting for 10.2% of the additional total expenditure on special education students (or $605 per special education student), and about 7.5% of total special education spending. If Medicaid funds are included, federal funding covers 12% of the total additional expenditure on special education students (i.e., 10.2% from IDEA and 1.8% from Medicaid) (Chambers, Parrish & Harr, 2004)

Chambers' (1999) offers a more fine-grained approach to resource-cost analysis in special education involving five dimensions: (a) type of environment (departmental, non-departmental); (b) grade levels; (c) service prototype (regular classroom, outside the regular classroom, or separate facility); (d) primary disability; and (e) student need (extent of curricular, behavioral, or medical–physical adaptations necessary to provide instructional services).

Using data on existing special education services in Massachusetts in the 1990s, Chambers conducted an analysis of additional expenditures of special education services at the intersections of the various dimension listed previously. Chambers found that on average, expenditures on a special education student in a non–departmentalized setting was 2.17 times that for educating the regular education student; in a departmentalized setting, the spending was 1.21 times regular education spending; and in an external assignment, the spending was 8.38 times regular education spending.

Chambers (1999) found that additional spending for students in grades 4–8 in non–departmentalized settings were 3% above (1.03 times) spending for grades 1–3 in non–departmentalized settings. In addition, the ratio of base expenditures for a student with disabilities compared to a regular education student was 1.24 for non–departmentalized settings. Finally, students requiring minor curricular adaptation had additional spending 17% above (1.17 times) those requiring no curricular adaptation. Multiplying the weights across the dimensions, we find that this student has additional spending toward his or her education of 1.49 (1.03 x 1.24 x 1.17 = 1.49).

Special Education Costs in the Context of Educational Adequacy Studies

Over the past decade and a half, there has been an increasing trend of state legislatures and interest groups contracting external consultants to conduct "cost studies" in order to determine the costs of providing all children in a given state with a constitutionally adequate education. These studies have generally been conducted under either of two scenarios. First, state legislatures have contracted outside firms to assist them in estimating the costs of providing an education system that meets state constitutional standards for educational adequacy. In some cases, state legislatures have undertaken this activity seemingly preemptively or at least with previous school funding litigation well in the rear view mirror, but in other cases legislatures have undertaken this activity while under judicial oversight or during the remedy phase of litigation. Alternatively, many similar studies have been sponsored by individuals or groups staging legal challenges over funding equity and adequacy against states (See Baker, Taylor and Vedlitz, 2008). Much has been written about the variability in findings across these studies, especially in regard to the underlying basic costs of educational adequacy across states (Baker, Taylor and Vedlitz, 2008). However, little has been written about the often deeply buried findings of these studies regarding special education programs and costs.

Table 1 lists a series of studies all using a method known as Professional Judgment Analysis, each of these studies also addressed by Baker, Taylor and Vedlitz (2008). As discussed above, a professional judgment study relies on the knowledge and wisdom of panels of selected experts to propose a set of schooling inputs (human resources, physical resources, time) that would be sufficient for achieving adequate educational outcomes. To a large extent, these proposals are hypothetical and to at least some extent, the proposed resources draw on the actual experiences and actual resources that inform those at the table. Nonetheless, this approach is somewhat different from prior SEEP studies which looked only at actual programs and services and spending on them.

Table 1 shows the underlying basic costs - cost per pupil for a child with no additional special needs from each study, and the additional costs - or cost weights derived from each study for special education. Only some of these studies endeavored to determine different weights based on severity of need. None is as precise as the late 1990s exercise undertaken by Chambers. Overall weights tend to be somewhat greater than 100% above basic costs, consistent with previous studies of actual spending. These weights appear somewhat higher, which might be explained by panelists recommending desired, adequate resource levels rather than current averages. But, the comparisons between "average" expenditure studies and these estimates are imperfect. Average expenditure studies express the special education marginal spending as a ratio to the "average" cost of non-special education children and not to the minimum, as done in Table 1. The ratio to the minimum cost will necessarily appear higher than the ratio to the average expense.

Table 1

Findings from State Level Resource Cost Studies of Education Costs (through 2008)

State Study	*Study Method*	*Author*	*Data (estimate) Year*	*Base (0 Additional Needs)*	Adj. Basic Cost	Sped Mild	Sped Moderate	Sped Severe	Sped Overall
Colorado PJ	PJ	Augenblick & Colleagues	2002	$6,815	$6,113				1.11
Colorado PJ2	PJ	Augenblick & Colleagues	2005	$7,237	$5,965	0.94	1.80	5.23	
Connecticut PJ	PJ	Augenblick & Colleagues	2004	$9,207	$6,823	1.12	1.45	3.32	
Kansas PJ	PJ	Augenblick & Colleagues	2001	$5,811	$6,172				2.08
Maryland PJ	PJ	Augenblick & Colleagues	2000	$6,612	$5,967				1.17
Minnesota PJ	PJ	Augenblick & Colleagues	2005	$5,938	$4,857				1.00
Missouri PJ	PJ	Augenblick & Colleagues	2002	$7,832	$7,542				1.23
Montana PJ	PJ	Augenblick & Colleagues	2002	$6,004	$6,999				1.20
Montana PJ	PJ	APA	2007	$9,030	$9,025	0.77	1.32	2.93	
Nebraska PJ	PJ	Augenblick & Colleagues	2001	$5,845	$6,376				1.57
Nevada PJ	PJ	Augenblick & Colleagues	2004	$7,229	$5,883	0.90			
New Jersey PJ	PJ	Augenblick & Colleagues	2005	$8,016	$5,610		1.42	4.08	
North Dakota PJ	PJ	Augenblick & Colleagues	2002	$6,005	$6,570	1.08			
Pennsylvania	PJ	Augenblick & Colleagues	2006	$8,003	$6,427				1.30
South Dakota	PJ	APA	2004	$6,362	$6,790	1.33			
Tennessee PJ	PJ	Augenblick & Colleagues	2003	$6,207	$5,785	0.48	1.00	3.45	

On review of these various studies, on concern we raise is that most appear not to dedicate sufficient space to discussing the rationale for their proposed service delivery configurations for special education. Rather, the studies report the panelists final determinations and may include a handful of footnotes to selective studies on special education. It is difficult to evaluate the "reasonableness" of the proposed staffing

configurations for special education with respect to the likelihood of improving outcomes for children with disabilities.

State School Finance Formulas & Children with Special Needs

As explained herein, it is ultimately a state responsibility to ensure that general and special education funding is adequate and equitably distributed across school districts, schools and children statewide. Federal funds provide only modest support. Local districts ultimately bear the burden of complying with IDEA, regardless of state support. Here, we review basic approaches used by states in their school funding formulas for providing differentiated funding - or not - across local public school districts in order to meet the needs of children with disabilities - to provide them with equal educational opportunity. Five basic mechanisms are used to deliver special education funding to local school districts, as described by Ahearn (2010).

- Weighted Pupil: "Funding (either a series of multiples of the general education amount or tiered dollar amounts) allocated per special education student that varies by disability, type of placement, or student need." Or "Funding (either a single multiple of the general education amount or a fixed dollar amount) allocated per special education student" (Ahearn, 2010, p. 3)

- Resource Based: "Funding based on payment for a certain number of specific education resources (e.g., teachers or classroom units), usually determined by prescribed staff/student ratios that may vary by disability, type of placement or student need" (Ahearn, 2010, p. 3)

- Percentage Reimbursement: "Funding based on a percentage of allowable, actual expenditures" (Ahearn, 2010, p. 3)

- Census-Based: "A fixed dollar amount per total enrollment or Average Daily Membership" (ADM) (Ahearn, 2010, p. 3)

- Block Grant: Funding based on base-year or prior year allocations, revenues, and/or enrollment. (Ahearn, 2010, p. 3)

In the late 1980s and early 1990s, concerns emerged over the growth in special education populations and special education spending, along with concerns that specific funding mechanisms which increased funding in relation to classified headcounts (such as weighted funding) might lead to inappropriate growth in classification rates. In some cases, state policymakers responded by adopting "census-based" funding models which distribute an equal share of funds to all districts based on an assumed fixed share of the student population qualifying for special education programs.

Funding Formula Types – Fiscal, Classification and Placement Effects

There exists a modest body of research on the effects of these alternative funding mechanisms on the provision of special education programming and classification of children with disabilities. A handful of studies have validated underlying concerns addressed by census based financing - that local public school districts are in fact responsive to financial incentives for identification and service of children with disabilities and further that capitation of the fiscal incentive, by methods such as census-based financing can limit increased identification. For example, Cullen (2003) notes that: "My central estimates imply that fiscal incentives can explain nearly 40% of the recent growth in student disability rates in Texas. The magnitude of the institutional response varies by district size and enrollment concentration, student race / ethnicity and the level of fiscal constraint." (p. 1557) .Lipscomb (2009) notes that Dhuey and Lipscomb (2009) find evidence of a strong association between states adopting capitation systems for special education from 1991–92 to 2003–04 and a post-reform decline in their learning disability rates that averaged about 7 percent. In addition, Kwak (2008, in Lipscomb, 2009) concludes that finance reform in California decreased the state's special education enrollment rate.

Cullen (2003) also points to distributional effects of fiscal incentives, explaining that districts with greater black populations in Texas were more responsive (increasing special education identification rates) to state aid for special education and districts receiving low state aid were more likely to attempt to increase aid through special education. In short, fiscal incentives created by headcount-sensitive special education aid may lead not only to greater overall growth in special education populations but also to disparate distributions of identified students in relation to district conditions. That is, fiscal incentives may explain a portion of the unevenness of special education populations across districts within states, specifically increased identification of speech impairments in the elementary grades and learning disabilities in the secondary grades.

These studies, however, do not endeavor to determine whether the incentivized identification rates are closer to or further from actual underlying rates of special educational needs among student populations clustered in districts, which is a difficult if not implausible empirical task. Rather, the implicit assumption is that any incentivized increase in identification leads to identification rates that are further from true need - "over-identification" per se. Further, any correction by capitation necessarily leads to identification rates closer to true need. This may be far from true if incentives are created in areas where children with disabilities were previously underserved or if strict capitation policies provide insufficient resources to very high need districts lacking sufficient alternative revenues sources to accommodate those needs.

Other studies, framed as evaluation studies of state special education finance programs, have focused on the virtues of census-based funding such as flexibility in use of resources provided via census-based block grants and the potential for greater inclusion of special education students in general education programs. Chambers, Parrish and Hikido (1996) evaluate the Massachusetts census-based finance formula, and while

the study explored special education revenues and expenditures across district grade range types and by specific services provided the study did not evaluate the equity effects of distributing census-based grants across districts by shares of actual students served, nor did the study address variations in rates of actual students served or whether overall rates and variation in rates across districts have changed substantively since implementing census based funding.

Few studies have attempted to address head-on, the primary concern associated with census-based funding, expressed by Parrish and colleagues as follows: "Concerns in regard to possible identification and placement incentives would be neutralized by adoption of a census-based system. However, this approach leads to other concerns, e.g., the possible incentive to under-identify and under-serve special education students. (p. 10, fn#3)"[16]

A series of studies conducted for the State of California by Parrish and colleagues (1998 & 2003) began to address this issue for a limited subset of special education students - those with higher cost, more severe disabilities. Reiterating the concern above, Parrish and colleagues note: "A potential problem associated with population-based systems, however, is that they appear to be based on the assumption of an equal prevalence of students requiring special education. That is, one possible rationale for having districts or states of the same size receive the same amount of special education funding is the assumption that incidence rates for students with disabilities are approximately the same across jurisdictions. The purpose of this study is to test this assumption, and if found to be false, to recommend appropriate adjustments to the new AB 602 funding system." (Parrish et al., 1998, p. vi-vii)

Parrish et al. (1998) found that "severe and/or high cost students are *not* randomly distributed throughout the state. These findings were consistent and clear, regardless of the definition of severity used." (p. vi-vii). This finding was reiterated in a follow-up study 5 years later. Both studies eventually proposed statistical methods based on census data to provide adjusted special education enrollment counts to be used for financing services for more severely disabled students. No attempt was made to evaluate whether similar methods might be appropriate for students with less severe disabilities and no attempt was made to discern whether these students also vary in concentration across districts at rates greater than chance alone. Parrish (2000), however, explains that around the same time, New York State had developed a census based funding formula which included a poverty-based adjustment for special education populations including lower severity, higher incidence students.

Finally, a study conducted by the Pennsylvania Department of Education (PDE) endeavored to determine the underlying causes of wide variations in special education identification rates across districts in that state several years after implementing a census-based funding formula which was intended to curb such variation. The study audited the identification practices of districts identified as having disproportionately high and disproportionately low special education identification rates. The study found that "High

[16] http://www.gcdd.org/publicpolicy/specialeducation/GA%206%208%2005_append_2.pdf

incidence school districts were reported to be disproportionately poor, with high rates of student/family mobility, and community based social services which attract and hold families likely to have students at-risk." (PDE, 2000, p. 6)

The report found demographic measures including poverty and racial composition to explain significant amounts of the variation in incidence rates across districts (see statistical analysis in report appendix). That is, the report found that even several years after special education had been de-incentivized in Pennsylvania, factors such as poverty remained associated with special education identification rates. Perhaps more importantly, however, the study found no differences in the identification practices of higher and lower incidence districts, specifically that "… all districts generally adhered to the processes and procedures outlined in law, and districts with high incidence rates used virtually the same procedures and processes as districts with low incidence rates." (p. 6)

In many states, disability incidence rates measured by identification practices of school district officials range from as low as 5% in some districts to nearly 30% in others, even in states that have maintained census-based finance formulas for decades. The majority of identified students in these districts are students with speech impairments, specific learning disabilities and behavioral disorders. Census based school finance formulas assume that the true underlying distribution is even across districts, in sharp contrast with existing distributions that result from district identification practices. Few attempts have been made to reconcile district identification practices with the census-based assumption, or to validate the census-based assumption disregarding district practices.

Parrish (2000), like the PDE study, points to a correlation between district poverty rates, minority concentrations and special education identification rates. But, authors of studies revealing such patterns are tentative about suggesting that race and poverty are associated with true prevalence of disabilities, rather ascribing the relationship to biases in district identification procedures. If these patterns do represent bias rather than actual need, it would be appropriate to implement policies to curb the bias. However, there may exist real connections between poverty and learning disability rates. For example, numerous studies have indicated a strong relationship between low birth weight and learning disabilities (Litt, Taylor, Klein & Hack, 2005), and further a connection between low birth weight and socio-economic status.

The PDE study also indicates a likelihood of parents of children with disabilities to locate themselves in communities with more comprehensive services for children with disabilities. The availability of such services and migration patterns of parents of children with disabilities might explain a portion of remaining variation in district identification rates in states that are geographically diverse. Yet, little strong empirical research addresses the geographic distribution of families of children with disabilities and mobility patterns of families upon having a child identified as having a disability.

Baker and Ramsey (2010), using data from Pennsylvania and New Jersey, shows that children with disabilities tend to be spatially clustered by locations within states. That is, incidence rates vary widely by location in a state and school district incidence rates are associated with census data on disabilities in the general population. Finally,

Baker and Ramsey show that adopting the assumption of census based financing can lead to severe inequities in the distribution of special education aid.

Finally, Baker (2003) indicates that districts in states using percentage reimbursement programs for special education generally have more funding available to use on their core instructional programs. That is, special education is less of a drain on general education funds in states that use percentage reimbursement (Baker, 2003). This finding is likely not so much a function of the funding mechanism itself, and more likely associated with the level of support provided for special education in states using this approach during the time period investigated.

Encroachment

A concern related to growth in classification rates is whether the rapid growth rate in special education costs has adversely affected, or *encroached* upon, available resources for the general population (Lankford & Wyckoff, 1999). That is, if total education revenues grow more slowly than special education spending, regular education resources will decline. Lankford and Wyckoff in particular find that when total revenues are constrained, perhaps by overall economic conditions or by local fiscal capacity, encroachment of regular education funds increases or is higher.

That is, because local districts are obligated to comply with IDEA regardless of the level of state or federal support they receive, local fiscal capacity plays a significant role in determining the extent that districts can raise additional revenues to cover special education costs, or must reshuffle existing resources. Because fiscal capacity varies, and general education resource levels vary, the extent to encroachment also varies. Murphy and Picus (1996) similarly find:

> . . . encroachment in California varies in terms of both expenditures per pupil and in terms of the percentage of the general fund that the encroachment represents. As a result, this system could result in a loss of equity, potentially damaging the state's claim that it has achieved the level of equity demanded in the *Serrano* lawsuit. (p. 386)

The National Research Council (NRC) report, *Making Money Matter: Financing America's Schools,* suggests that while the problem of encroachment may exist, it may be more productive to address whether the current "entitlement and categorical approach to educating children with disabilities best serves their learning needs," rather than to continue pitting one student population against another for access to finite resources.(p. 222) The NRC recommends more integrated approaches to placement, improving the capacity of schools to accommodate students in integrated environments, improving accountability for special education student's outcomes, and providing schools and parents greater control over the use of public funds to accomplish these tasks (Ladd & Hansen, 1999).

Table 2 summarizes funding approaches used across states, based largely on recent work by Ahearn (2010) and the Education Commission on the States. One notable

finding in the Ahearn report is that states seem to be moving away from census based financing of special education. This may be occurring because most states adopting the approach also included safety valves to accommodate “exceptions” to the rule - exceptions to the assumption of even distribution of children with disabilities. As Baker and Ramsey (2010) point, these exceptions quickly become the rule. Despite continued concerns over head-count based methods, most states continue to use some form of weighting system to drive special education funding to local school districts.

Table 2

Summary of Funding Approaches

Formula Type	States	Strengths	Weaknesses
Weighted Pupil (varied weights)	Arizona, Colorado, Florida, Georgia, Indiana, Iowa, Kentucky, New Mexico, Ohio, Oklahoma, South Carolina, Texas	Ability to target additional resources to districts serving children in need, and to vary those resources by need levels.	May influence not only aggregate identification rates, but severity of classifications. Even more problematic if separate weights tied to placement type. (see Parrish et al., 1994, 2000)
Weighted Pupil (single weight, or flat grant per SE pupil)	Louisiana, Maine, New Hampshire, New York, North Carolina, Oregon, Washington	Simplicity. Ability to target additional aid to districts serving greater shares of children in need.	Insensitive to differences in concentration of disabilities by severity.
Resource Based	Delaware, Kansas, Mississippi, Nevada, Tennessee, Virginia	Ability to target additional aid to districts serving greater shares of children in need.	If based on fixed sum (typical), may lead to spreading resources to thin across districts/services/children
Percentage Reimbursement	Michigan, Minnesota, Nebraska, Wisconsin, Wyoming	Less encroachment (Baker, 2003) Ability to target additional aid to districts serving greater shares of children in need.	Potentially cumbersome compliance procedures of accounting for allowable expenses. If based on fixed sum (typical), may lead to spreading resources to thin across districts/services/children
Census-Based	Alabama, California, Idaho, Massachusetts, Montana, New Jersey, Pennsylvania	Reduces incentive to mis-classify or over-classify (Parrish, 1994)	Potential to deprive districts with uncontrollably high disability rates of necessary resources (Baker and Ramsey, 2010)
Combination	Alaska, Illinois, Maryland, South Dakota, Vermont		
No separate special education formula	Arkansas, Connecticut, Hawaii, Missouri*, North Dakota, Rhode Island, West Virginia		

*misclassified by ECS. Formula includes single weight (.75) for each special education student above fixed percent of enrollment. http://www.projectforum.org/docs/FinancingSpecialEducation-StateFundingFormulas.pdf

The future of special education finance

Despite all of the public attention on special education costs and all of the interest in education cost analysis and determining the costs of adequate educational programs and services, surprisingly little has been done in recent years to advance the art of determining the costs of special education programs and services or advancing the design of state school finance systems to ensure that districts can cover these costs. Indeed we should still be concerned with the incentives provided under alternative state funding models and we should seek to better understand the relationship between funding approaches, classification of children and quality of services provided. As noted herein, some progress had been made in this regard nearly a decade ago with attempts to identify factors outside of district control that may serve as predictors of incidence rates.

But, if we are going to design better funding mechanisms to drive resources to districts, schools and children, we also need a clearer picture of the service delivery models we intend to support and the outcome levels we expect. Researchers and advocates should explore ways to intersect the high quality research on special educational additional expenditures from the 1990s with research on adequate programming - not just current average programming. One option is to identify large enough numbers, within and across states of school and district programs that truly generate adequate educational outcomes for children with disabilities, both in an IDEA and in an NCLB sense. If we can identify such programs and/or service delivery models, it would behoove us to dig deeply to better understand the cost structure of these approaches - that is, determine not the average expenditure of the existing average - but the average expenditure (and underlying structure) of that which is truly adequate (or excellent!). If such programs simply do not exist, perhaps due to current resource constraints, it may be time to try harder and accept the reality that we may actually need to spend more to achieve our desired goals.

Finally, researchers and policymakers need to carefully consider the continued desire to categorize the problem and determine costs and aid formulas only with respect current categories - current classification schemes. The continued either/or mentality regarding financing of general and special education programs may inhibit progress, as it arguably has in the past. IDEA 2004 specifically refers to Response to Intervention (RtI) as a model for consideration in the identification of students with disabilities. As RtI continues to be adopted we might expect to see identification rates drop as more students are served through regular education interventions and not identified as special education students. This service delivery model could significantly change the face of special education services and costs associated with the services.

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