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**Resource Accountability: Enforcing State Responsibilities
for Sufficient and Equitable Resources Used Effectively to
Provide All Students a Quality Education**

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Abstract: Darling-Hammond, Wilhoit, and Pittenger (2014) addressed the need for states to align their accountability systems with new college- and career-ready learning standards. The authors recommended a new accountability paradigm that focuses on 1) meaningful learning, enabled by 2) professionally skilled and committed educators, and supported by 3) adequate and appropriate resources. This paper explicates the provision of adequate and appropriate resources, the third of these three pillars of a comprehensive approach to accountability. Adequate resources, effectively used, are prerequisites to building the capacity of schools to deliver the two other pillars, professionally skilled and committed educators and meaningful learning. Also, the effective use of

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public school funding is an oft-ignored but crucial step toward ensuring equal educational opportunity for all students.

Keywords: accountability; resource accountability; educational equity; equal education; needs assessment; economically disadvantaged; academic standards; college- and career-readiness

La Rendición de Cuentas de los Recursos: Haciendo Cumplir las Responsabilidades del Estado de Otorgar Recursos Suficientes y Equitativos para que Sean Utilizados Eficazmente para Proporcionar a Todos los Estudiantes una Educación de Calidad

Resumen: En el número del 18 de agosto 2014 esta publicación, los autores Linda Darling-Hammond, Gene Wilhoit, y Linda Pittenger abordaron la necesidad de que los estados alineen sus sistemas de responsabilidad educativa con un nuevo paradigma que prepare a los estudiantes para que sean exitosos en la universidad y carreras profesionales. Los autores recomendaron un nuevo paradigma de la rendición de cuentas que se centrara en 1) el aprendizaje significativo, habilitado por 2) educadores profesionalmente cualificados y comprometidos, y con el apoyo de 3) los recursos adecuados y apropiados (Darling-Hammond, Wilhoit, y Pittenger, 2014). En este trabajo se explicita la provisión de los recursos adecuados y apropiados, el tercero de estos tres pilares de un enfoque integral para la rendición de cuentas. Recursos suficientes que se usen con eficacia, son requisitos previos para viabilizar la capacidad de las escuelas para sustentar los otros dos pilares, educadores profesionalmente cualificados y comprometidos y los aprendizajes significativos. Además, la financiación efectiva de la de escuelas públicas es un paso a menudo ignorado, pero crucial para garantizar la igualdad de oportunidades educativas para todos los estudiantes.

Palabras clave: responsabilidad educativas; recursos; equidad educativa; educación igualitaria; evaluación de las necesidades; normas académicas; preparación universitaria y profesional

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Palavras-chave: responsabilidade educacional; recursos; equidade educacional; educação igual; avaliação das necessidades; padrões acadêmicos; faculdade e prontidão carreira

Introduction

In the August 18, 2014, volume of this publication, authors Linda Darling-Hammond, Gene Wilhoit, and Linda Pittenger addressed the need for states to align their accountability

systems with new college- and career-ready learning standards. The authors recommended a new accountability paradigm that focuses on 1) meaningful learning, enabled by 2) professionally skilled and committed educators, and supported by 3) adequate and appropriate resources (Darling-Hammond, Wilhoit, & Pittenger, 2014). This paper explicates the provision of adequate and appropriate resources, the third of these three pillars of a comprehensive approach to accountability. Adequate resources, effectively used, are prerequisites to building the capacity of schools to deliver the two other pillars, professionally skilled and committed educators and meaningful learning. Also, the effective use of public school funding is an oft-ignored but crucial step toward ensuring equal educational opportunity for all students.

Outline of the Paper

All 50 state constitutions require the states to provide public education and finance it. Through legislative enactment, the states, which control about 90% of elementary and secondary school funding, put in place systems of funding public education that determine both the level and allocation of state revenue to local school districts and the extent to which communities can raise local tax revenues to support their schools. While discussions of this core state responsibility usually focus on the amount of state and local money states spend on public education and how those funds are allocated across districts, little attention is given to the extent to which states put in place protocols for ensuring local districts effectively and efficiently use their funds to provide essential resources in schools and classrooms. A few states have taken the lead, however, by pursuing school finance reforms to provide both fair and equitable school funding and the effective and efficient application of funds at the local level. These states have pioneered ways to support local school and district implementation of proven educational programs and services that meet student needs and, therefore, offer students a genuine opportunity to meet state academic learning standards.

This paper explores the urgent need to broaden the formulation of state public education finance to encompass not only the provision of fair and equitable funding, but also measures designed to promote the effective use of those funds on resources essential to enable all students to achieve state academic standards. Put simply, resource accountability means states must simultaneously provide fair and adequate funding and advance the effective use of those funds.

In the first section of the paper, we underscore the importance of resource accountability through examples of deficiencies and harm to students caused by inadequate state school funding systems. In the second section, we recount one state's major strides along the path to resource accountability by aligning cost- and needs-based resources with state learning standards and from that reform deduce a model applicable to all states. In that section, we also note progress in other states and argue that the federal government must adopt new policies that promote comprehensive resource accountability in the states as a condition of receiving federal education funds. In the final section, we summarize the strong and growing evidence that sufficient investment effectively spent results in major improvements in educational achievement and attainment.

Legal Background

The state constitutions impose on the States the legal obligation to provide quality education to all of their children. Honoring this crucial responsibility requires not only sufficient funding and the educational resources the funding procures but also programs and services proven to be successful for low-income students and students with special needs.

Some states adopted education articles in their constitutions in the late eighteenth century, when our nation was founded, based on the deeply held belief that knowledge and civic involvement were essential to the preservation of freedom and democracy and the protection of individual rights. Other states added education articles to their constitutions in the late nineteenth century as a result of the Common School movement, which sought equal educational opportunity for the low-wealth children of new immigrants and workers in a mixed industrial and agricultural age. The opponents of this movement believed that education gave rise to “futile aspirations” on the part of “those born to inferior positions” and that class distinctions made for social cohesion (Edwards & Rickey, 1947).

Nonetheless, the movement prevailed and led to statements in state constitutional conventions that affirmed the crucial role of public education, such as this in 1894: “Whatever may have been the schools’ value heretofore . . . their importance for the future cannot be overestimated. The public problems confronting the rising generation will demand accurate knowledge and the highest development of reasoning power more than ever before” (Steele, 1900, p. 695). This imperative rings equally true today.

Importantly, these education articles provide the legal grounds to secure the opportunity to obtain the knowledge and reasoning power necessary to prepare school children for active participation in the civic and economic life in the 21st Century. This legal ground has a rich history, primarily emanating from lawsuits filed in forty-five of the fifty states to enforce the educational rights guaranteed to public school children in the state constitutions, especially on behalf of vulnerable students – low income and at-risk students, students with disabilities and other special needs, and students of color. In recent years, these lawsuits have implicated “standards based” education, namely, state adoption of substantive curriculum standards, along with assessment-based accountability intended to measure student proficiency and hold local districts and schools accountable for performance. These state standards articulate modern, substantive, and detailed goals for educational attainment.

In the current context, litigation raising violations of a state’s duty to its school children under the constitutional education article allows the court to use the substantive curriculum and performance standards as benchmarks analyzing the claimed educational deprivation. For example, overcrowded or dilapidated facilities may prevent students from having access to the science labs they need to meet science standards. Uncertified teachers in classrooms, missing English-learner programs and the absence of basic services for students provide further evidence that states are not holding themselves accountable for basic educational resources. Trials challenging unequal and inadequate state funding are increasingly grounded in extensive proofs of the deficits in teachers, support staff, interventions for struggling students and other resources essential to afford students a meaningful opportunity to achieve the very academic and performance standards imposed by the state on local schools and districts through current accountability regimes.

Against this backdrop, most states are now moving to college- and career-ready standards, but few states are taking steps to align their funding systems with the standards. Meanwhile, growing concentrated poverty creates intense challenges for public schools (Berliner, 2014; Southern Education Foundation, 2013).¹ Test-score and performance accountability should not “get ahead of the difficult work of providing educators in high-poverty schools” with the school supports they need to help their students master the common

¹ At this time, Ohio and Kansas are considering removing or weakening the education articles in their state constitutions, threatening to reverse the egalitarian values embodied in the Common School movement. See, e.g., House Concurrent Resolution 5006, Kansas Session of 2011, Pittner (2014).

² Levers of change for low-income students and schools (arguing that resource accountability must enable high-poverty

core standards (Duncan & Murnane, 2014).² As recent court cases demonstrate, a comprehensive approach to resource accountability is a fundamental prerequisite to enabling students to reach the current state standards, let alone more “rigorous” college- and career-ready standards.

There also is strong evidence that states with school funding systems concretely linked to the actual cost of delivering their academic standards to all students, including those with additional programmatic needs, realize achievement gains benefiting students and strengthening the states’ civic and economic health. These states have constructed a bridge connecting state standards with funding and resources, driven by assessments of student needs and an accurate analysis of the costs of delivering the standards. By taking these politically difficult, but crucial steps, states can begin to place their standards within reach of all students. In this framework for school finance reform, sufficient investment is fundamental, and appropriate use of funding is also essential.

The Need for Resource Accountability

Many state education finance systems impose inequities and limit educational opportunities; taken together across the country, they deprive millions of schoolchildren of the opportunity to learn, especially children in poverty, children of color, children learning English and children with special needs. Court findings show that students in many low-wealth neighborhoods and in communities of color attend school in crumbling buildings, with overcrowded classes, high teacher and staff turnover, and curricula too weak to enable them to get into good colleges. In addition, examining and comparing key features of the fifty state education finance systems through the measures of fairness used in the “National Report Card, Is School Funding Fair?” reveals the extent to which the states have a demonstrated commitment to sufficient funding, allocated in relation to student need, offering insight into the relationship between school funding and availability of essential resources in the nation’s classrooms and schools (Baker, Sciarra, & Farrie, in press).

Trials Bring Deep Resource Deficits to Light

Although the state constitutions establish the states affirmative responsibility to provide education to all school-age children, far too many states fall short of effectuating that right in a meaningful way, consistent with contemporary needs and demands. It is not surprising, then, that most states have faced lawsuits seeking adequate resources for quality educational opportunities, and a dozen such cases are currently in process. The evidence in these cases typically reveals severe deprivation of resources in schools in low-wealth urban and rural communities, which judges often enumerate in detailed findings derived from an extensive evidentiary record developed in courtrooms across the nation.

For example, in Massachusetts in the early 1990s, the state’s low-wealth districts were “unable to provide the programs, services and personnel...necessary to meet the needs of [their] students,” and large class sizes in the elementary grades were barriers to the “individual attention and instruction...elementary students needed.” A close look at a few districts revealed school buildings in “terrible condition” and an “extremely unsafe” high school. It was revealed that low-wealth districts also tended to have more “inexperienced and poor quality teachers”

² Levers of change for low-income students and schools (arguing that resource accountability must enable high-poverty schools to “attract and retain skilled, experienced teachers”).

and did not have “enough offerings for advanced students” (*McDuffy v. Secretary of the Executive Office of Education*, 1993, p. 521).

Comparisons to the state’s more affluent districts showed that those districts were able to provide “significantly greater... opportunities,” (*McDuffy v. Secretary of the Executive Office of Education*, 1993, p. 521) such as top-flight teacher professional development, extensive writing programs, thorough computer instruction, and a wide variety of classes in the visual and performing arts. In short, they were able to educate their children. But, students in low-wealth communities had “significantly fewer educational opportunities and lower educational quality” (p. 521) due to “inadequate financial support” (p. 520) and unpredictable funding

Similarly, in Arkansas, small, rural, mostly African-American school districts charged the state with violating the Arkansas Constitution’s education article. The trial court declared the state’s school funding system unconstitutional because it was “inequitable and inadequate under...the Arkansas constitution. Too many of our children,” the court wrote, “are leaving school for a life of deprivation, burdening our culture with the corrosive effects of citizens who lack the education to contribute” (*Lake View School District No. 25 v. Huckabee*, 2001). In its Findings of Fact, the court stated:

[S]ome districts cannot afford to build new buildings, complete necessary repairs or buy buses... [For example,] Lee County Schools went two years without a band program due to lack of funds... and does not offer any advanced placement courses. ... The science laboratories have little or no equipment...[, and] the bus fleet of 26 buses has only five that meet State requirements... Facilities, materials, teachers and other resources affect a student's opportunity and ability to learn....(*Lake View School District No. 25 v. Huckabee*, 2011, n.p., paragraphs 18-32)

In New Jersey’s *Abbott v. Burke* (*Abbott II*) school funding case, the New Jersey Supreme Court declared the state’s school funding system unconstitutional because it caused “tragically inadequate” education for children in the state’s low-wealth, high-need school districts (1990). The Court found that “the poorer the district and the greater its needs, the less the money available, and the worse the education.” Because the Defendant State claimed that better funding would not matter, the Court reviewed the evidence and concluded, “Money can make a difference. If effectively used, it can provide the students with an equal educational opportunity, a chance to succeed. They are entitled to that chance, constitutionally entitled. They have the right to the same educational opportunity that money buys for others” (*Abbott II*, 1990, p. 363).

Reviewing the facts adduced in the crucible of trial, the Court declared that Many opportunities offered to students in...suburban districts are denied [in low-wealth, high-need urban districts]. ...While [suburban] Princeton has one computer per eight children, [urban] East Orange has one computer per forty-three children, and [urban] Camden has one computer per fifty-eight children. ... In [urban] Jersey City, computer classes are being taught in storage closets.

Science education is deficient in some poorer urban districts. Princeton has seven laboratories in its high school, each with built-in equipment. ... However, many poorer urban districts offer science classes in labs built in the 1920's and 1930's, where sinks do not work, equipment such as microscopes is not available, supplies for chemistry or biology classes are insufficient, and hands-on investigative techniques cannot be taught.

The disparity in foreign-language programs is dramatic. ... Music programs are vastly superior in...suburban districts. ... Art programs in some poorer urban districts suffer compared to programs in...suburban districts. ... Physical education

programs in some poorer urban districts are deficient. In East Orange High School there are no...sports facilities; the track team practices in the second floor hallway. All of [urban] Irvington's elementary schools have no outdoor play space.... Many poorer urban districts operate schools that, due to their age and lack of maintenance, are crumbling. These facilities do not provide an environment in which children can learn; indeed, the safety of children in these schools is threatened...the record in this case demonstrates that deficient facilities are conducive to a deficient education. (*Abbott II*, 1990, p. 394-397)

In a later ruling that addressed facilities needs in more depth, the New Jersey Supreme Court held, "These deplorable conditions have a direct and deleterious impact on the education available to the at-risk [low-income] children" (*Abbott V*, 1998, p. 470).

In other states, courts find similar resource and opportunity deficits and declare violations of their state constitutions' education articles. The North Carolina Supreme Court, for instance, found it necessary to "hold[] the State accountable" for the many programs and services not being provided to [rural] students (*Hoke County Board of Education v. North Carolina*, 2004, p. 389). It declared: "The children of North Carolina are our state's most valuable renewable resource," and called for immediate compliance with constitutional requirements, holding that "[w]e cannot . . . imperil even one more class unnecessarily" (*Hoke County Board of Education v. North Carolina*, 2004, p. 377).

The Ohio Supreme Court found that "exhaustive evidence was presented to establish that [low-wealth] school districts were starved for funds, lacked teachers, buildings, and equipment, and had inferior educational programs, and that their pupils were being deprived of educational opportunity," (*DeRolph v. State*, 1997, p. 205) despite "a greater level of tax effort" (p. 230) by local taxpayers in the lower wealth communities. Also, "visits to Ohio school buildings demonstrated that some students were 'making do in a decayed carcass from an era long passed,' and others were educated in 'dirty, depressing places'.... Obviously, state funding...cannot be considered adequate if the districts lack sufficient funds to provide their students a safe and healthy learning environment" (pp. 206-08).

Resources and resource accountability were apparently absent in Ohio, based on the un-refuted evidence presented at trial, as the Court summarized:

[M]any of the school districts throughout the state cannot provide the basic resources necessary to educate our youth. ...school districts have insufficient funds to purchase textbooks.... For some classes, there were no textbooks at all. The curricula in [certain] school districts are severely limited...compared to what might be expected of a system designed to educate Ohio's youth.... For example, [some districts] offer no honors program and no advanced placement courses, which disqualifies some of the students from even being considered for a scholarship or admittance to some universities. None of the [plaintiff] school districts is financially able to keep up with the technological training needs of the students in the districts. [They] lack sufficient computers, computer labs, ..., software, and related supplies.... (*DeRolph v. State*, 1997, p. 208)

These school districts, plagued with deteriorating buildings, insufficient supplies, inadequate curricula and technology, and large student-teacher ratios, desperately lack the resources necessary to provide students with a minimally adequate education (*DeRolph v. State*, 1997, pp. 207-210)...despite higher local tax efforts (p. 230).

Most recently, the South Carolina Supreme Court held that students are being denied access to certified teachers, safe and healthy school buildings, and adequate preschool programs. The

court declared, “[O]ur State’s education system fails to provide school districts with the resources necessary to meet the minimally-adequate standard.” The Court also questioned “the prudence of creating school districts filled with students of the most disadvantaged socioeconomic background, exposing students in those school districts to substandard educational inputs, and then maintaining that nothing can be done.” Moreover, the Court held that, “South Carolina’s education funding scheme is a fractured formula denying students...the constitutionally required opportunity,” and “the cost of the educational package in South Carolina is based on a convergence of outmoded and outdated policy considerations that fail the students of the Plaintiff Districts” (*Abbeville County School District v. State of South Carolina*, 2014).

Unfortunately, this synopsis is far from exhaustive. Court findings in other states (e.g., *Campbell v. State of Wyoming*, 1995; *Texas Taxpayer and Student Fairness Coalition v. State of Texas*, 2014) recount numerous additional examples of daunting conditions and startling contrasts between the resources found in well-funded schools and resources in under-funded schools.³ In sum, the school funding litigations often bring to light severe deficiencies in educational opportunities, especially for low-income children in urban and rural communities. The courts connect these missing investments to constitutional violations that deny children the knowledge and experiences they need to become capable, engaged citizens and workers.

Is School Funding Fair? A National Report Card

Underlying and causing the gross resource inequities reported by courts in state after state are the states’ school funding systems. Based on in-depth analyses of all fifty funding systems and key comparisons among them, “Is School Funding Fair? A National Report Card” (Report Card) finds that many state school funding systems are remarkably unfair (Baker, Sciarra, & Farrie, in press). A fair system is one that ensures equal educational opportunity by providing a sufficient level of funding to support delivery of rigorous academic standards, distributed to districts within the state to account for the additional needs generated by student poverty, as defined by the Report Card (Baker, Sciarra, & Farrie, in press).

First issued in 2010, the Report Card is built on the principle that stable and equitable state systems of school finance are an essential precondition for the delivery of a high-quality education and of critical importance to efforts to close persistent achievement gaps among the nation's low-income students, English language learners, and students with disabilities. Without a nationwide commitment to the principles of fair school funding and progressive state finance systems, efforts to improve overall achievement while also reducing gaps will be unproductive and unsustainable.

The Report Card evaluates state school finance systems on four separate, but interrelated, fairness indicators: funding level, funding distribution, state fiscal effort, and public school "coverage." Funding level depends largely on fiscal effort, and coverage can affect the

³ See, e.g., *Texas Taxpayer and Student Fairness Coalition v. State of Texas*, No. D-1-GN-003130 (Travis County Dist. Ct. Aug. 28, 2014)(on appeal); *McCleary v. State of Washington*, No. 07-2-02323-2 SEA (King County Sup. Ct. Feb. 4, 2010), *aff'd* 269 P.3d 227 (Wash. 2012); *Lobato v. State of Colorado*, No. 2005CV4794 (Denver County Dist. Ct. Dec. 9, 2011), *rev'd on other grounds* 304 P.3d 1132 (Colo. 2013); *Montoy v. State of Kansas*, No. 99-C-1738 (Shawnee County Dist. Ct. Dec. 2, 2003), *aff'd* 120 P.3d 306 (Kan. 2005); *Columbia Falls v. State of Montana*, 109 P.3d 257 (Mont. 2005); *Campaign for Fiscal Equity v. State of New York*, 719 NYS.2d 475 (N.Y. County Jan. 9, 2001), *aff'd* 801 N.E.2d 326 (N.Y. 2003); *Campbell v. State of Wyoming*, 907 P.2d 1238 (1995); *Roosevelt Elem. Sch. Dist. v. Bishop*, 877 P.2d 806 (Ariz. 1994); *McDuffy v. Sec'y of Educ.*, 615 N.E.2d 516 (Mass. 1993); *Edgewood ISD v. Kirby*, 777 S.W.2d 391 (Texas 1989); *Horton v. Meskill*, 376 A.2d 359, 366-76 (Conn. 1977). See also *Williams v. State of California*, No. 312236 (Superior Court, County of San Francisco), Complaint filed May 17, 2000.

political will to fund public education. To show the important interplay between funding level and funding distribution, the Report Card profiles each state.

The fairness profile in Figure 1 (Baker, Sciarra, & Farrie, in press), below, presents three hypothetical states. State A is low-funding and “flat,” which means it distributes a low level of revenue across districts without adjusting for poverty. States B and C provide the same level of funding to districts at 0% poverty, but diverge markedly at higher poverty rates. State B is “regressive,” providing less funding to high-poverty districts, and State A has an upward, “progressive” distribution that better addresses the needs of students in high-poverty schools. For the 2011-12 school year, only 15 states were progressive, 19 were flat, and 14 were regressive. In fact, Nevada, North Dakota and Wyoming were extremely regressive because school districts with a poverty rate of 30% received at least 20% less funding per pupil than districts with a 0% (zero percent) poverty rate.⁴

⁴ Overall, school funding in the U.S. is regressive, unlike “the vast majority of O.E.C.D. countries” (Porter, 2013, quoting Andreas Schleicher, Deputy Director for Education, OECD).

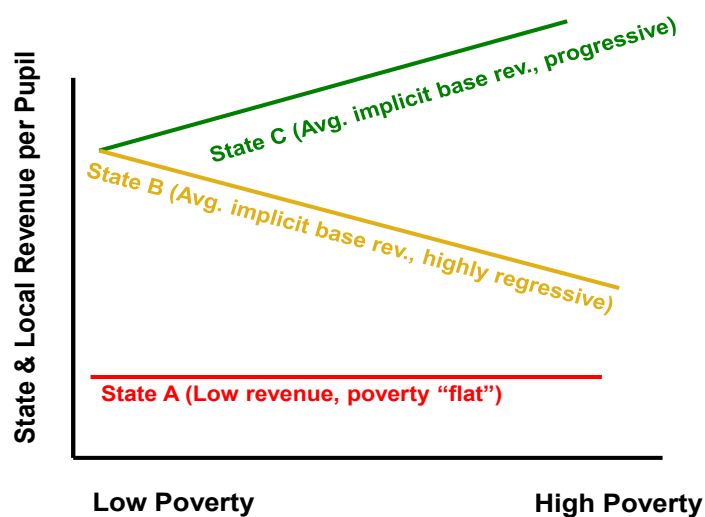


Figure 1. Funding profile

Source: *Is School Funding Fair? A National Report Card*. (Baker, Sciarra, & Farrie, in press)

The Report Card also groups states for regional comparisons, as in Figure 2, the Mid-Atlantic Region. This graph illustrates the national pattern of funding disparities within and among the states. In New Jersey and Delaware, funding increases with poverty, allowing districts to provide students extra programs and services to overcome the disadvantages imposed by concentrated poverty. The opposite pattern in Maryland means that high-poverty districts have less funding despite their need for additional resources. In fact in the 2011-12 school year, the most recent data available, Maryland left low-wealth, high-poverty districts to make do with 92 cents for every dollar spent in higher-wealth schools with lesser needs. This disparity creates additional hardships for the state's most at-risk students. Finally, New York is high funding but flat, which means it distributes state and local revenue across districts without adjusting for the extra challenges caused by poverty.

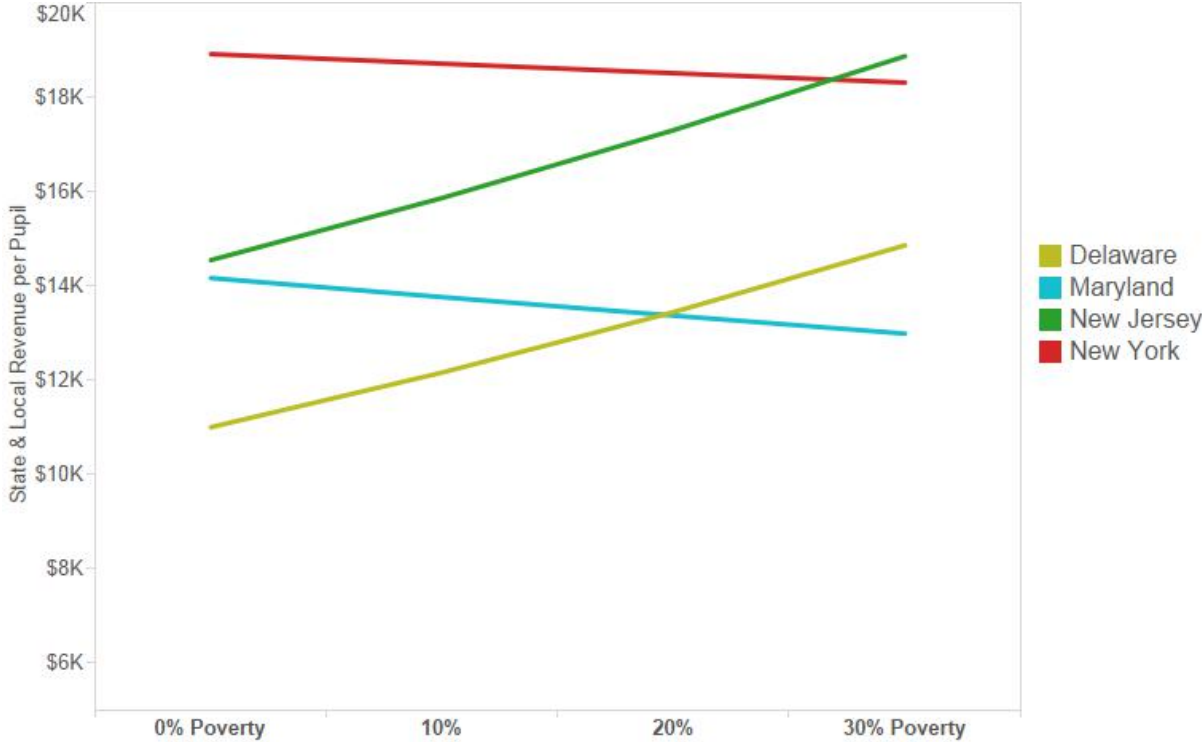


Figure 2. Funding profile: Mid-atlantic
Source: *Is School Funding Fair? A National Report Card*. (Baker, Sciarra, & Farrie, in press)

When we shift our focus to the Gulf Coast region, in Figure 3, we see a dramatic drop in per-pupil funding compared to the Mid-Atlantic region, even though each state’s revenue level is adjusted to reflect differences in regional wages, poverty, economies of scale, and population density, to recognize the variety of interstate differences. The Gulf Coast states fund their schools at levels similar to each other, and only Louisiana is progressive, with higher funding in its higher poverty districts. In Texas and even more pronounced in Mississippi, funding levels are low and flat, raising the question whether any districts in those states can offer sufficient resources to their students.

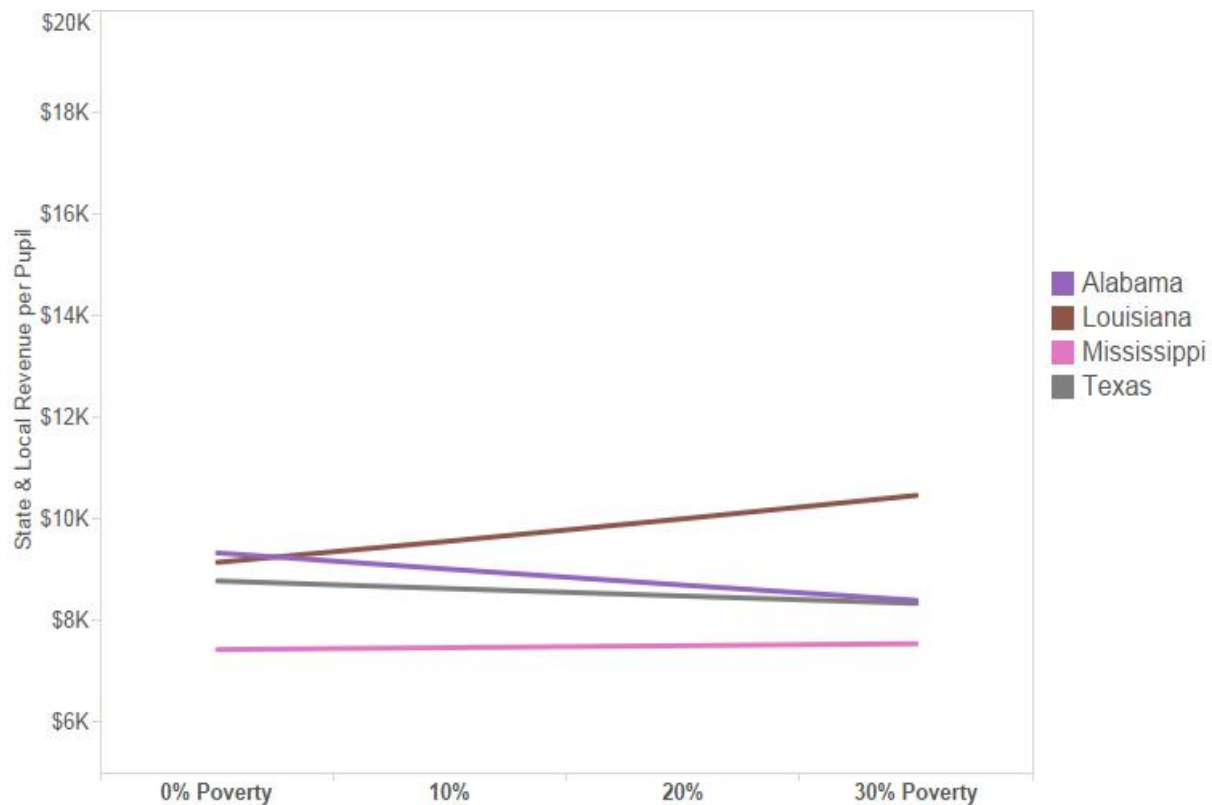


Figure 3. Funding Profile: Gulf Coast

Source: Is School Funding Fair? A National Report Card. (Baker, Sciarra, & Farrie, in press)

As the Report Card (Baker, Sciarra, & Farrie, in press) explains, while the distribution of funding to account for student need is crucial, the overall funding level in states is also a necessary element for fair school funding. Without a sufficient base, even a progressively funded system will be unable to provide quality educational opportunities. Across the entire country, disparities in funding among states are vast, with average per pupil funding ranging from \$6,369 in Idaho, to \$18,507 in New York. In eight states (Florida, Oklahoma, Tennessee, Mississippi, North Carolina, Arizona, Utah, Idaho), average funding levels are below \$8,000 per pupil.

The third indicator of fairness, effort, measures how each state uses its own fiscal capacity to support its public education system. What effort is the state making to fund its public schools? For example, West Virginia is a relatively poor state with \$35,152 in per capita Gross Domestic Product (GDP) but with a relatively high 5.1% of that fiscal capacity directed to its schools, earning an A in this measure on the Report Card. North Carolina, on the other hand, has stronger fiscal capacity, with \$44,063 in per capita GDP but the second lowest effort at 2.4 percent, which results in a very low funding level and earns an F.

The final indicator is coverage, which measures both the share of school-age children attending public school and the degree to which average family incomes vary between those within and outside the public school system. Rural states tend to have 90% or more of their children in public schools and lower income ratios between public and private families. In sharp contrast, around 20% of children in Louisiana and Washington, D.C. do not attend public schools, and the average household income of these children is two to almost four times higher

than their public school peers. A high share of private school students from higher income households may act to reduce the political will necessary to support fair school funding (Baker, Sciarra, & Farrie, in press).

Overall, the fair school funding Report Card concludes that only as states develop strong systems of public education, built on sufficient funding that's distributed progressively, as to poverty, will the states be able to implement and sustain the initiatives necessary to boost student achievement (Baker, Sciarra, & Farrie, in press).

Taken together, the findings of severe deficits in essential resources from court findings summarized above, along with the results from the National Report Card, demonstrate the stark reality of education deprivation endured by school children in far too many states. We now turn to key questions. How can policymakers ensure access to the essential resources and their effective use, which comprise genuine educational opportunity? How can they establish resource accountability that leads to higher achievement? Several states have shown the way forward, implementing school finance reforms designed to create and ensure comprehensive resource accountability.

Moving toward Comprehensive Resource Accountability

Several states have chosen the path to resource accountability by aligning educational resources with their learning standards. These exemplary states adopted student learning standards, and then engaged experts and educators in the task of calculating the costs of providing the resources necessary to enable all students, including those with varying needs, to achieve those standards. This forms the basis of a fair funding system, one that allocates sufficient funds to all students, with additional resources to address the needs of at-risk students and students in concentrated poverty. But these reforms go further because these states have also acted to ensure that new funds were "intelligently spent" (*Abbott II*, 1990, p. 359). They improved both the adequacy of resources and accountability for their use.

New Jersey is perhaps the most developed of these states, propelled by successive court directives. Thus, New Jersey serves as a model for other states to apply in their own contexts. Some other states have also taken a similar approach and made progress toward a more robust system of resource accountability. These individual state experiences, however, underscore the imperative that federal policymakers add their power to spur all states to pursue school finance reform grounded in comprehensive resource accountability.

New Jersey's Path to Resource Accountability

The New Jersey Supreme Court was the earliest and most articulate court to frame resource accountability. In its 1985 ruling in *Abbott v. Burke* (*Abbott I*), the Court held that the state Constitution requires "that [level of] educational opportunity which is needed in the contemporary setting to equip a child for [his or her] role as a citizen and as a competitor in the labor market." The Court made clear, as does the Constitution, that the State itself has the duty to "assure the delivery of the constitutionally-required educational programs and facilities" for this level of opportunity (*Abbott I*, 1985, p. 382). The Court has proceeded, over subsequent decades, to hold the State accountable for providing the resources necessary to create and sustain this opportunity.

In 1990, after the trial in *Abbott*, the Court summarized the voluminous evidence, which showed that the state's then-current funding system produced deep deficits in educational resources and caused "tragically inadequate" education, to the great and enduring detriment of students in 28 low-wealth school districts educating over 20% of the state's students. When the

Court then shifted its attention to the remedy, it found that the State had no educational content or academic learning standards and no analysis of the needs of its disadvantaged students in these districts. Nor, did the State know the costs of providing programs to address those needs (*Abbott II*, 1990, p. 408).

Absent these basics, with which to design a remedy, the Court used the programs and funding levels in successful districts as a substitute and an interim solution. The Court ordered the State to (1) ensure that low-wealth districts' "educational expenditures per pupil are substantially equivalent to" the average of the more than a hundred "affluent suburban districts," and (2) study and fund the additional needs of students in the low-wealth districts. The Court held,

Funding must be certain, every year. The level of funding must also be adequate to provide for the special educational needs of these poorer urban districts and address their [students'] extreme disadvantages. (*Abbott II*, 1990, p. 408)

On the impetus of the Court's rulings, New Jersey changed course and allocated increased investments in its low-wealth districts, with their higher needs, without sacrificing funding in its higher-wealth schools. The legislative and executive branches of state government engaged in an iterative process with the state courts to eventually reach an agreed upon school funding statute that embodies resource accountability. As a result, the State retooled its school finance system from regressive to progressive, and now stands among the few states providing both a sufficient base funding level statewide and higher funding to the twenty-eight (now thirty-one) districts with greatest student needs (Baker, Sciarra, & Farrie, in press).

Responding to the Court's 1990 critique and after one failed attempt, the Legislature, in 1996 enacted a new school funding formula and adopted statewide "core curriculum content standards" in seven subject areas, English language arts, math, science, social studies, the arts, health and physical education and world languages. The standards also "incorporate career-planning skills, technology skills, critical-thinking skills, decision-making and problem-solving skills, self-management, and safety principles." In 1997, the New Jersey Supreme Court approved the standards, deeming them "a reasonable legislative definition of a constitutional...education," and applauding the State's major step forward in developing them (*Abbott IV*, 1994, p. 422-427).

Nevertheless, the Court wrote, "The standards themselves do not ensure any substantive level of achievement. Real improvement still depends on the sufficiency of educational resources," such as "successful teaching, effective supervision, efficient administration, and a variety of other...factors needed to assure a sound education" (*Abbott IV*, 1994, p. 417, 428-429). Therefore, the question remained whether the new funding formula assured the level of resources needed to provide the education in the standards to all students, including those in low-wealth districts.

In a thorough analysis, the Court reviewed the relevant funding provisions of the new law and found that it failed to "link the content standards to the actual funding needed to deliver that content." The Court pointed out, for example, that the State based the law's funding levels for low-wealth districts on a hypothetical district devoid of the high-need characteristics in low-wealth districts. The law also allowed suburban districts to spend more than the formula claimed was sufficient. Despite evidence to the contrary, the State tried to persuade the Court that the suburban expenditures were mere "excess" and "inefficiencies." That argument failed. (*Abbott IV*, 1994, p. 429-431).

Finally, the Court laid out a roadmap for the State to find its way to resource accountability. "We have always insisted that increased funding to the [high-need districts] be allocated for specific purposes realistically designed to improve education," the Court wrote.

And, “[t]he Commissioner [of Education] has an essential and affirmative role to assure that all education funding is spent effectively and efficiently...to achieve a constitutional education.” (*Abbott IV*, 1994, p. 441). Therefore, the Court directed the Commissioner to initiate a study to identify student and systemic needs, specify the supplemental programs required to address those needs, and present a plan for implementation. The Court remanded the case for hearings, in which both the Commissioner and the Abbott plaintiffs submitted reports and recommendations. The remand court approved most of the Commissioner’s recommendations, issuing its report in 1998 (*Abbott V*, 1998, p. 450, 456).

The recommended remedial measures included preschool education for all three- and four-year-olds, full-day kindergarten, technology, alternative schools, and school-to-work and college-transition programs (*Abbott V*, 1998, p. 473). Over the next several years, these and other advantageous measures transformed many of the “Abbott districts” and their schools into excellent learning communities. Challenges emerged, such as the need for institutions of higher education to offer degree and certification programs for preschool teachers and assistant teachers. The State assisted with the costs of mounting these particular programs (Lobman, Ryan & McLaughlin, 2005).

While ongoing progress occurred in low-wealth districts after the State developed and the Court approved programs in 1998, the state functioned with a disjointed funding system, a court-ordered interim remedy for the lowest wealth districts and annually negotiated funding for the rest of the state. Finally, in 2003, New Jersey education officials began the process of calculating the costs of the programs and services needed – for all students across a wide variety of districts – for an effective opportunity to reach the state’s standards. On that basis the state developed a school funding formula that it could apply statewide.⁵

The cost study process began with the core curriculum content standards because they defined a constitutional education, as the Court held earlier. Panels of educators and district administrators identified essential base resources, such as teachers, books and supplies, plus additional resources needed for low-income and ELL students, such as additional counselors and summer and after-school programs. The panels adjusted the required resource mix depending on concentrations of students with special needs. The state then estimated the costs of the resources and issued the “Report on the Cost of Education” in 2006. After public hearings, this phase of the process culminated in a 2007 Addendum with updated cost calculations (Dupree, Augenblick, & Silverstein, 2006).

Also in 2007, the state retained school finance experts to review the chosen array of resources and suggest revisions to the cost determinations in the report (Odden, 2007).⁶ Moreover, the state convened a new panel of experts to design a funding formula and resolve outstanding issues, such as the cost and funding method for the high quality, full day preschool program for all three- and four-year-olds in the low-wealth districts (*Abbott IV*, 2000; *Abbott VIII*, 2002; Belfield & Schwartz, 2007). In December 2007, the State Department of Education reported the costs and final funding formula in “A Formula for Success: All Children, All Communities” (New Jersey Department of Education, 2007).

In January 2008, the Legislature passed and the Governor signed the School Funding Reform Act (SFRA). Because it relied on and codified the cost study, the SFRA formula was designed to provide the resources determined to be necessary for all students – including low-

⁵ For a more detailed discussion of the cost study process and development of the new funding formula, see Sciarra and Farrie (in press).

⁶ The experts recommended changes, including adding professional development resources and improving the geographic cost adjustment.

income students, ELLs, students with disabilities and children in preschool – to achieve the state’s learning standards. The SFRA also requires the State to review the operation of the formula every three years and recommend adjustments to the formula’s costs and weights to the Legislature (School Funding Reform Act, 2008; Sciarra & Farrie, in press).

The process for designing the SFRA was methodical when compared with the ad hoc and often convoluted nature of many state school funding systems, which grow over the years as legislatures add numerous separate funding streams. The SFRA formula incorporates and aligns with the state standards, thus embodying resource accountability. The SFRA is structured to hold the State accountable for the resources students need to meet the standards imposed by the State. This logical relationship constitutes reciprocal accountability, instead of the one-way, top-down educational accountability in most states (School Funding Reform Act, 2008).

The SFRA formula generates additional funding, based on student needs, through weights for low-income and ELL students. Schools with students eligible for free or reduced price lunch receive an additional 47 to 57% of the base cost, depending on the concentration of low-income students, to address the impacts of poverty. Schools educating ELL students receive an additional 50% for these students, and students who are both low-income and ELL generate a little more than the at-risk amounts. Students with disabilities receiving speech-only services are funded at an appropriate amount, while other special education pupils are funded at a much higher level (School Funding Reform Act, 2008).

Of critical importance, the SFRA is also the first state funding formula to support universal, high quality preschool for all three- and four-year olds in low-wealth communities (Boylan & White, 2010). The New Jersey Supreme Court recognized early childhood education as “an indispensable component of any educational program designed to aid children in the [low-wealth districts],” necessary to “reverse the educational disadvantage these children start out with” (*Abbott II*, 1990, p. 402). The SFRA funds preschool programs at \$11,506 per pupil in public schools, \$12,934 per pupil in community settings and \$7,146 per pupil in Head Start to augment federal funds. All of these programs must comply with the same high quality benchmarks, including small class sizes and certified teachers. Because investments in preschool pay enormous dividends, it is puzzling that the U.S. chooses to invest at a lower rate than many developed nations (Barnett, Jung, Youn, & Frede, 2013; OECD, 2013).

In a 2009 ruling, the New Jersey Supreme Court upheld the formula and acknowledged the arduous road traveled to its development and adoption. The Court also wrote that it “remains committed” to “enforcing the constitutional rights of the children of this State should the formula prove ineffective or the required funding not be forthcoming” (*Abbott XX*, 2009, p. 1006). Over the years, the Court has held the state accountable for providing a genuine opportunity to all children.

Thus, the state uses the SFRA formula, annually, to calculate total funding for each district based on student enrollment, weighted by the categories of student need. State and local shares depend on the district’s “ability to pay,” that is, its relative property values and average income. Although sustaining full implementation is an ongoing challenge, the state’s funding formula and resource accountability are aligned with its standards and feature needs-based and cost-based allocations and programs. Whether the state will reassess costs in light of new college- and career-ready standards and fully fund the formula bears watching. In addition to the weighted student funding under the SFRA formula, the State Education Department adopted regulations directing districts with high concentrations of student poverty to utilize the funding for specific programs and staff, including full day kindergarten, reasonable class sizes at various grade levels, and intensive early math and

language arts literacy initiatives. The State also adopted detailed regulations governing the allocation of preschool education funding to essential components of high quality preschool programs, including small class size, developmentally appropriate curriculum, professional development and parent engagement. These affirmative requirements dovetail with the SFRA funding formula and are intended to carry out the Court's overarching mandate that the State accompany the provision of funding with "firm controls" designed to ensure the effective and efficient use of all funding at the district and school levels (N.J.A.C. 6A:13 and 6A:13A).

As noted in a detailed review of New Jersey's school funding history, by adopting the SFRA:

New Jersey successfully transitioned from funding public education based largely on political considerations in the annual negotiations over the state budget to funding determinations based on the actual cost of enabling all students, including low income (at-risk) children and English language learners (ELL), to achieve the state academic learning standards (Sciarra & Farrie, in press).

Only by assessing needs and implementing the programs that meet them, based on enabling students to reach the state's standards can genuine accountability be achieved because only then do states build the capacity of their schools and students to meet the goals the standards set. The New Jersey process and its SFRA offer a new framework that overcomes the limits of traditional state school funding systems.

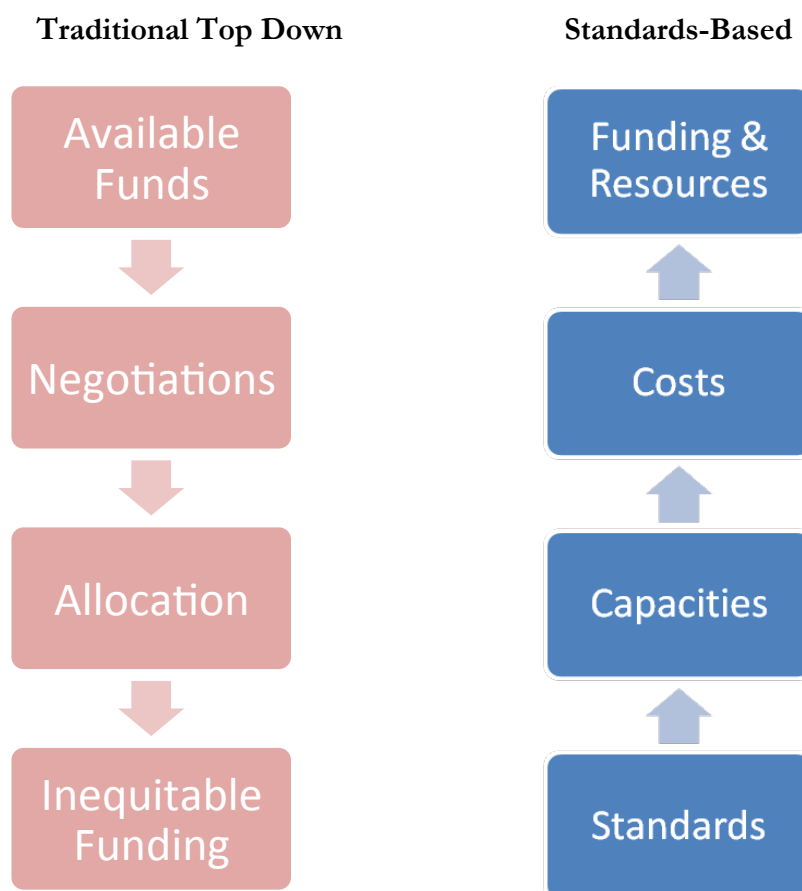
A Model for Developing Resource Accountability

Applying the New Jersey experience more broadly presents a practical model for the challenge of devising a meaningful formula when states decide to hold themselves accountable for actually funding their standards—due to a court order or otherwise. Traditionally, legislatures and governors considering resources for schools first determine how much money is available, without an analysis of educational standards, needs or costs. Then, they compromise on the distribution of that funding among the state's school districts. This process often leads to an inequitable equilibrium, in which the allocation of resources represents the balance of political power, usually weighted in favor of well-to-do school districts.

However, when the starting point is state standards, such as the current college- and career-ready standards, funding questions are turned on their head, and the spotlight shifts to the question what comprises a constitutionally sound and effective school funding system tied to the standards. To align the funding system with the standards, legislators and state education departments must ask:

- What capacities—that is, what resources, conditions, programs and services—do schools need to enable their students to meet the standards?
- How much funding is required to build and maintain the required capacities?
- What kind of state education finance system would best deliver the funding and capacities to all schools?

FUNDING AND RESOURCE ACCOUNTABILITY



Few states have aligned their funding systems with their standards.

Figure 4. Funding and resource accountability
Source: Molly A. Hunter

To answer the capacity questions, states have identified education essentials and increasingly turned to cost studies to obtain information on the funding needed to support these essentials. Teaching quality heads everyone's list of essentials. Well-prepared teachers and other professional staff, with induction programs and mentoring for new teachers, and professional development are crucial to student learning. For low-income and minority students especially, research shows quality teaching has an enormous positive influence. Other resources widely acknowledged as essential include adequate facilities, a rigorous curriculum, small class sizes in the early grades, effective programs for English language learners and students with disabilities, and qualified principals. Laboratories, textbooks, and supplies are obvious needs.

In recent decades, based on extensive compelling research on brain development in young children, high-quality preschool has become another essential. Evidence of its effectiveness—improving student achievement, reducing delinquency and teen parenting, increasing earnings and home ownership—is nothing short of phenomenal. The economic payback to society also highly recommends increased spending on high-quality preschool (Belfield, 2007; Rolnick & Grunewald, 2003).

Identifying essentials often occurs as part of an education cost study, most initiated by the states themselves.⁷ As states implement college- and career-ready standards, more cost studies would be appropriate and may be anticipated. Whatever the study results, attaining full implementation from the legislature can be difficult, and the school districts must carefully use any increased funding on the most effective strategies and programs for improving student achievement.

New Jersey is not Alone

A number of other states have also successfully pursued resource accountability or are in the midst of a purposeful effort to do so. In Massachusetts, New York, and Maryland, for example, more resources targeted to effective programs improved opportunities and, when sustained, resulted in better outcomes for students. More recently, California enacted a more progressive funding system that also requires school districts to develop accountability plans for the effective use of their resources.

In Massachusetts, when the state’s highest court ordered the State to “devise a plan and sources of funds sufficient to meet the constitutional mandate,” (*McDuffy v. Secretary of the Executive Office of Education*, 1993) the legislature enacted the Education Reform Act of 1993 (ERA). The ERA incorporated proposals from the Massachusetts Business Alliance for Education, based on an education cost study that recommended adequate, stable funding and more investment in school districts educating “at-risk” students (Massachusetts Business Alliance for Education, 1991). Massachusetts became one of only a handful of states where per-pupil funding was significantly higher in low-wealth school districts where it was needed most (Churchill et al., 2002). The ERA also required school districts to mount “expanded programs...beyond the regular school day and year...based on recognized research of teaching and learning.” Geared to helping students reach the state academic standards, these programs involved accelerated learning, effective teaching strategies, and qualified staff (Massachusetts Department of Education, n.d.).

In 2007, in response to court rulings (*Campaign for Fiscal Equity v. State*, 2003),⁸ New York State rewrote and simplified its school funding statutes to increase state funding and send a majority of the new revenue to its high-poverty school districts. The state also enacted a “Contract for Excellence” law (New York Education Law section 211-d., 2007), which requires districts receiving substantial increases to target the new monies to create or expand one or more of six programs proven to be effective at raising achievement, including:

- High quality preschool
- Class size reduction
- Programs that give students “more time on task” and
- Professional development to improve teaching and principal quality

⁷ Four states have conducted studies as part of remedial orders in school funding cases. See *Lake View Sch. Dist. v. Hucklebee* (AR); *Abbott v. Burke* (NJ); *Campaign for Fiscal Equity v. State* (NY); *Campbell County Sch. Dist. v. State* (WY).

⁸ Emphasizing that resources must be “calibrated to student need” (2003, p. 348).and quoting both the trial court’s holding that opportunity must “be placed within reach of all students” (p. 337) and the State Education Department position that “all children can learn given appropriate instructional, social and health services” (p. 337).

Districts must submit a plan for spending these funds and report annually on the results. Three separate education cost studies helped point the way for the remodeled funding system. All three studies recommended regional cost adjustments and a simpler formula, and found that schools with concentrated poverty had major resource gaps. In addition, the State concluded that local property taxes in these districts were already among the highest in the state. Unfortunately, the state retreated from the 2007 funding statute after only two years and completely retracted the increases.

In 2002, Maryland also implemented funding reforms based on cost studies that estimated the educational resources sufficient to offer students could reasonably be expected to meet state standards. The new law weighted funding based on enrollment of students in poverty and those learning English intended to boost investment in programs for these students, such as full-day kindergarten and pre-kindergarten for all “at-risk” students. Subsequently, however, Maryland’s funding system lost ground and became regressive, although funding levels remained above national averages (Augenblick and Myers, Inc., 2001; 2002 Maryland Laws Ch. 288 (S.B. 856, “Bridges to Excellence in Public Schools Act”); MGT of America, Inc., 2009; Baker, Sciarra, & Farrie, in press).

More recently, in 2013, California adopted the Local Control Finance Formula (LCFF), which takes into account the higher costs of educating students from low-wealth families, students learning English, and students in foster care and greatly simplifies the state system for distributing funds to school districts. LCFF provides a base per-pupil amount for each district’s average daily attendance, plus upward adjustments of 10.4% for K-3 students to reduce class size in the early grades, 20% for students learning English, in foster care, or low-income (FRL), and 50% for these students where they exceed 55% of the district’s enrollment (California Department of Education, n.d.).

The LCFF also requires each district to develop an accountability plan, including input from the public, which sets goals and measures progress disaggregated for student subgroups. These plans must include strategies for the investing resources in programs, services and strategies that will lead to better outcomes. This promising new finance formula will be more equitable, that is, more progressive, in its allocations, but questions remain about the adequacy of its funding levels (California Department of Education, n.d.; Fuller & Tobben, 2014). Because California schools enroll one in every eight students in the U.S., the strength of its education system will impact the entire nation.

Federal Policy Makers Must Promote Resource Accountability

For over a decade, federal education policy has focused on requiring schools with concentrated poverty to meet academic standards but has ignored the need to provide their students with the resources necessary to enable them to reach the standards. Years of demanding results without ensuring fundamental resources has failed to generate long-sought improvements. This approach is counterproductive.

Instead, the federal government should apply pivotal pressure under U.S. education laws to compel the states to ensure that “all children have a fair, equal and significant opportunity to obtain a high quality education and reach...challenging state academic achievement standards,” (Elementary and Secondary Education Act, 2001) the stated goal of the federal Elementary and Secondary Education Act. Students throughout the nation need both the Congress and the U.S. Department of Education (Education Department) to honor their educational rights and act as guarantors of the necessary investments that provide well-prepared and qualified educators, decent facilities, a strong curriculum, high quality preschool, and other basic resources.

In a recent encouraging step in this direction, the Education Department's Assistant Secretary for Civil Rights has issued guidance to states and school districts, in which she outlines the "chronic and widespread" problem of unequal access to rigorous courses, a stable faculty of effective teachers, safe school buildings and other resources, and how this hinders education, especially for students of color (U.S. Department of Education, Office of Civil Rights, 2014). This guidance reminds all states and school districts that they have an obligation under Title VI of the Civil Rights Act of 1964 to ensure that students, regardless of race, color, or national origin, have access to the resources needed to succeed in school and be equipped for the competitive workforce. The guidance also details how the Office for Civil Rights (OCR) will investigate resource disparities, and OCR recently notified two school districts that it will investigate their complaints of racially discriminatory funding against the New York State Education Department and the New York Board of Regents (Schenectady City Schools, 2014).

At times, the Education Department has acted without regard to resource accountability and inequities. In its 2012 award of \$400 million to school districts in support of its school reform priorities, for example, the Department ignored the precondition for sustaining the reforms—a fair state school finance system. The winning districts were in 12 states, all of which had serious deficiencies in the way they fund schools, some with the most inequitable resources in the nation. Many of the winning districts will be unable to sustain the reforms given these inequities (Education Justice at Education Law Center, 2012). The Education Department should use its awards to require the states to adopt, as a prerequisite, needs- and cost-based funding aligned with state standards and effective use of resources.

In a parallel federal process, however, resource accountability became a keen focus of the educational Equity and Excellence Commission (Commission). Established in 2011, the Commission's mission was to advise the Education Department on the disparities in meaningful educational opportunities that give rise to the achievement gap, including systems of finance, and to recommend ways in which federal policies could address such disparities. In its 2013 report, the Commission called for "bold action by the states and the federal government" to redesign the nation's school funding and explained the need for states to demonstrably link school finance to "the cost of delivering rigorous academic standards" in order to "produce high achievement" for all types of students, echoing the New Jersey experience. Although Equity Commission members represented a broad political spectrum, there was "complete agreement that achieving equity and excellence requires sufficient resources that are distributed based on student need and that are effectively used" (U.S. Department of Education, 2013).

The Equity Commission also urged the federal government to promote resource accountability by directing states, using incentives, to implement funding systems that "provide a meaningful educational opportunity" for students and "ensure the effective and efficient use of all funds to enable all students to achieve state content and performance standards." Its report also recommended federal legislation that "targets significant new federal funding to schools with high concentrations of low-income students" (U.S. Department of Education, 2013).

Potentially putting a key aspect of the Equity Commission's report into action, U.S. Senators Jack Reed and Sherrod Brown are sponsoring the Core Opportunity Resources for Equity and Excellence (CORE) Act. This bill aims to tackle existing disparities in public education by establishing federal resource accountability requirements to compel states and school districts to offer all students equitable access to a quality education, including "core resources for learning" and a plan for addressing any inequities in access to them. States would

have to identify gaps in access to the core resources and develop an action plan to close those gaps. The core resources include:

- High quality instructional teams, including teachers, principals, school librarians, counselors, and education support staff, such as counselors, social workers and nurses;
- Rigorous curricula that are accessible to all students, including students with disabilities and English learners;
- Equitable and instructionally appropriate class sizes; and,
- Sound school facilities and well-equipped instruction spaces.

Also, states that fail to make progress in eliminating disparities for two or more consecutive years, under this law, would be ineligible for certain grant programs through the Education Department (Reed, 2014). This proposal defines some of what schools need and prescribes measurement of the opportunity to learn, which is essential to resource accountability. For schools with concentrated poverty, the bill would be strengthened by the addition of wrap-around services, high quality preschool, and summer and after-school programs to its core resources (see Quinn, Dryfoos, & Barkan, 2005).

Federal funding invested in core resources and new requirements that states close opportunity gaps could move the nation toward resource accountability and higher achievement. OCR enforcement of Title VI could also enforce this law, which requires states to end the discrimination in access to basic educational resources found in many schools. Together, changes in federal policies and programs could bring opportunity to students currently being denied and thereby brighten the nation's future economic and civic life.

Several states have traveled the path toward resource accountability, and crucial steps along the way are clear for all to follow. Learn the needs of students and the programs and services that meet these needs. Calculate the costs of building and maintaining the capacity of schools to deliver these essentials. Then, design and implement a state education finance system that flows from the knowledge gained, and do the difficult political work of supporting the schools with stable funding that is sustained over the long term. Federal policies should oblige states to move forward in this direction.

Resource Accountability Results in Higher Achievement

When states adopt and sustain resource accountability, they are building equitable opportunities that spur better outcomes for students with benefits that perpetuate into adulthood. Researchers have examined education finance improvements, attained through court orders and by other means, and their effects on educational attainment and long-term adult outcomes. They find that increased funding causes higher academic achievement and economic attainment in adulthood for children from low-income families. Researchers have also measured impacts when states and districts direct funds to specific programs with proven efficacy.

In a landmark longitudinal analysis of school finance changes in 28 states from 1970 through 2010 and their effects on children born between 1955 and 1985, researchers C. Kirabo Jackson, Rucher Johnson, and Claudia Persico (2014) asked: whether these changes led to enduring spending changes; how the reforms affected the level and distribution of funding; and, how did they affect the long-term outcomes of children. Due to the release of newly available data, they were able to conduct a detailed analysis of the timing of the changes in outcomes in relation to the timing of the changes in funding. The results reveal that, for low-income children, "a twenty percent increase in per-pupil spending...for all 12 years of public school is

associated with [about an] additional year of completed education,” thus, significantly increasing the likelihood of high school graduation or education beyond graduation. It also produced “25 percent higher earnings and a 20 percentage-point reduction in the annual incidence of poverty in adulthood” (Jackson et al., 2014, p. 5).

Central to this May 2014 National Bureau of Economic Research Working Paper is the proof of causation, as it presents several “patterns that indicate that these improvements reflect the...effect of school spending” (Jackson et al., 2014, p. 5). Improvements are “larger with larger spending increases,” and “the timing of improvements in outcomes track the timing of the increases in spending” (p. 35). The researchers conclude “based on the consistent pattern of these results...these impacts indeed reflect the causal effect of school spending” and “spending increases only improve educational outcomes for those who are exposed during their school-age years” (p. 35). Finally, they answer the question whether increased school spending can improve educational and lifetime outcomes of disadvantaged children: “Our findings show that it can” (p. 44).⁹

This addition to the evidence on the “productivity” of education spending is both groundbreaking because the data base is so extensive and dramatic because the effects are so large. Nonetheless, it is unsurprising to those who have seen positive results from adequate and intelligently used investments in public education. This productivity makes it imperative that resource accountability be adopted to systematically measure and report on the inputs shown to be effective, including funding itself most certainly, but also the programs and strategies that money buys.

Researchers have also examined the effects of states adding resources to support school districts that historically spent less than the level deemed necessary for a quality education, such as New Jersey and Massachusetts. Trends in New Jersey state assessments and in the National Assessment of Educational Progress (NAEP) show scores rising in the fourth and eighth grades in both reading and mathematics in the “Abbott districts,” with gaps narrowing between students in these low-wealth urban districts and students in other districts. The Abbott district scores are approaching the national averages, while the state average scores are consistently above the national averages. Moreover, a longitudinal effects study finds that the implementation of high quality preschool in high-needs districts has garnered significant gains in fourth- and fifth-grade scores in language arts, mathematics and science. In addition, the preschool program decreases grade retention and special education placement rates (Barnett et al., 2013; Goertz & Weiss, 2009).¹⁰

In another initiative fostering resource accountability, Massachusetts made differential state aid investments in low- and middle-spending districts between 1993 and 2000. The state funding formula added increments based on the numbers of low-income students and English language learners in each district. Researcher Jonathan Guryan analyzed the effects of these funding reforms and their implementation in these historically under-funded school districts and found markedly improved student scores. Previously low-scoring students drove much of this progress. After only a few years of improved funding and comparing 1992 and 1996 test scores, the research concluded that increases in per-pupil spending led to significant increases in math, reading, science, and social studies scores for 4th-grade students (Guryan, 2001).

Also attributed by some to increased investments more equitably distributed, Massachusetts students on the whole outperformed their counterparts in most other states on

⁹ Also concluding that the “effects are statistically significant” and “robust to a rich set of controls for confounding policies and trends” (Jackson, Johnson, and Persico, 2014, p. 44).

¹⁰ See, also, Kirp (2012)—an in-depth review of substantial progress made by a high-needs district (Union City, NJ).

national tests such as National Assessment of Educational Progress (NAEP). The 2000 NAEP math scores, for example, placed Massachusetts 4th graders third among their peers in all other states, and 8th graders ranked fifth. In science, the 4th graders tied for first and the 8th graders tied for second (Churchill et al., 2002). In 2007, the state's students ranked first or tied for first in all four of these categories (Cavanagh & Manzo, 2007). Unfortunately, subsequent backsliding and underfunding have reduced opportunities in the state's high-poverty districts.

Conclusion

As state courts have explained, state constitutions guarantee public school children the opportunity for an education that prepares them for civic and economic participation. As one high court wrote, the vision behind this guarantee is that every child has the potential to be “a contributing member in society...The wisdom giving rise to that vision is that both the child and society benefit immeasurably when that potential is realized” (*Abbott IV*, 1994, p.445).¹¹ Resource accountability is an crucial ingredient to achieving these constitutional guarantees and realizing quality educational goals.

This resource accountability is realized by investing sufficient educational resources, equitably distributed to ensure access to quality teaching, a rigorous curriculum, and other essentials for all students, including those in poverty, learning English, and with other special needs. Resource accountability also requires applying these resources effectively to provide proven programs and services that address student needs. Measuring access to each key resource and ensuring that gaps in access are closed is the only sure road to equity and higher achievement. Resource accountability is a prerequisite for meaningful learning enabled by professionally skilled and committed educators, the two other pillars of a comprehensive approach to accountability.

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¹¹ See, also, *West Orange-Cove v. Nelson* (2004)—observing that the state is at a fork in the road, as standards have risen, tests are more stringent, and the its demographics are changing to more low-income and non-English speaking; *Hoke County Board of Education v. North Carolina* (2014); *Montoy v. State of Kansas* (2005).

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