

# WHY MONEY MATTERS

Education funding makes up the largest single component of state budgets and state and local expenditures. Federal funds make up about 10 percent of education spending. Combined, it's a lot of money. Separately, it's still a lot of money. And that should matter to all of us, as taxpayers and as beneficiaries (both directly and indirectly) of those investments.

Too often, though, knowledge of the inner workings of state school finance, state budgets, and federal formulas is held by only a select few power-brokers in state and federal government, and by an even more select few who advise them. That knowledge is power—power over the distribution of large sums of money intended as an investment in the public good.

With this in mind, I aim to encourage broader public empowerment and engagement. The more people who are deeply knowledgeable about the historical underpinnings and conceptual and technical issues related to school funding, the more people who can actively and productively engage in public debate on these topics. This broader distribution of knowledge can help shape future education finance policies across states, inform the media on those policies, guide policy makers, and enable advocates to challenge rhetoric and policies that do not always comport with the best available empirical evidence or conceptual frameworks.

In this book I draw on my twenty-plus years of experience and research in state school finance policy, from my graduate training at Columbia University to my tenure at the University of Kansas and then, most recently, at Rutgers University. To understand the financing of education, I have conducted numerous academic studies of state school finance systems, consulted for state legislatures, and participated in legal challenges to state school finance systems across the country. Here I draw heavily on my work with the Education Law Center of New Jersey, which involved the preparation of a

national data archive of state indicators of the equity and adequacy of school funding, the *School Funding Fairness Data System*.<sup>1</sup> Based on this research, I contend that the most productive path forward starts with recognizing the realities of education financing in the United States and is guided by sufficient understanding of history, conceptions, and values and necessarily involves application of appropriate and rigorous methods and data.

*Educational Inequality and School Finance* is about school finance, the school and classroom resources derived from school funding, and how and why those resources matter. It examines how money matters in determining the quality of public schooling and how the availability and distribution of money determines the equity and adequacy of our public schools, as well as any other schools we choose to subsidize with public resources. The persistent denial by pundits across the political spectrum of the importance of money for determining school quality and for achieving equity has contributed in recent decades to diminished funding, thus compromising the equity and adequacy of US schools. And that denial has often been coupled with false promises of cost-free solutions and claims that equity can be achieved without equitable funding or that adequate schooling can be achieved regardless of money, by simply doing more with less. However, we have the tools, methods, and data to better understand the equity and adequacy of our school systems and to set targets for and reinvigorate state school finance systems. These tools are derived from long-established conceptions, values, and historical understanding. The most productive path forward starts with understanding these conditions and is guided by sufficient understanding of history, conceptions, and values, and necessarily involves application of appropriate and rigorous methods and data.

## THE PERSISTENT DENIAL THAT MONEY MATTERS

US public schools have faced a great deal of criticism over the past few decades. The modern bipartisan refrain holds the following truths to be self-evident: US schools are bloated bureaucracies, spending more than double what they did in past decades yet showing no improvement on national assessments; US schools are among the worst in the world, falling behind most developed nations on international assessments while at the same time costing more than any other nation's schools.

While exaggerated, these declarations fall within the mainstream of political punditry on school spending and quality in the United States, espoused

by business leaders and state and national political leaders. For example, in 2011 Microsoft cofounder Bill Gates laid out both claims. He argued in a *Washington Post* op-ed that “over the past four decades, the per-student cost of running our K–12 schools has more than doubled, while our student achievement has remained virtually flat. Meanwhile, other countries have raced ahead.”<sup>2</sup> And in the *Huffington Post* he claimed that “compared to other countries, America has spent more and achieved less.”<sup>3</sup> Others have gone so far as to make the bombastic statement that “the United States spends more on schools than any society in human history.”<sup>4</sup> To be clear, these claims are not original to the likes of Bill Gates. They are prevalent in school finance policy debates.

Some critics of US public schools assert that the primary reason for our skyrocketing spending, lack of improved outcomes, and relative inefficiency is public schools’ overdependence on underproductive human resources (teachers, administrators, and support staff). The increased dependence on human resources has been described by some as a staffing surge, with public schools employing more and more staff despite flat or declining enrollments over the past few decades.<sup>5</sup> Others have asserted that our public education system suffers from Baumol’s cost disease, an affliction of human resource-intensive industries wherein personnel costs continue to rise while yielding no gains in productivity.<sup>6</sup> The claim is that spending has skyrocketed primarily because staffing costs have skyrocketed, yet those increases in staffing, and/or compensation (salaries and benefits) for staff, have been largely inefficient. Public schools have faced little or no pressure to seek more efficient technological substitutions, whether by replacing staff with emerging technologies or using emerging technologies to select and retain fewer, less costly, more productive teachers.

Another, related claim is that US schools have not changed for over a century, while the world around them has, largely due to technological innovations. Human resources are deployed now much in the same way they were a century ago—teachers lecturing in front of rows of children in desks—except that there are more of them. It is argued that our failure to change with the times is seen as a main reason for our international noncompetitiveness, and our failure to adapt to emerging technologies contributes to our high spending and resulting inefficiency. The failures of our schools relative to a time in the distant past and relative to other nations are seen as a function of the stagnant model on which we rely: kids in rows, sitting at desks, listening

to a teacher at the front of the class. So according to this view, it would be foolish to continue investing more money into such a costly and outdated stagnant practice, especially given the proclamations of dreadful and declining performance.

While it may be true that our schools must adapt to a changing world, claims that they have not been doing so, that they are trapped in a distant past, are greatly exaggerated. These arguments obscure a far simpler explanation: many schools and districts simply do not have sufficient resources to provide an adequate and equitable, much less evolving, education for their students.

The sharp economic downturn following the collapse of the housing market in 2007–08, and persisting through about 2011, provided state and federal elected officials a pulpit from which to argue that our public school systems must learn how to do more with less.<sup>7</sup> It was the “new normal,” Secretary of Education Arne Duncan declared. This idea was embraced by pundits like David Brooks and by conservative organizations like the American Enterprise Institute (AEI).<sup>8</sup> As part of the US Department of Education’s campaign, it unveiled on its website a series of supporting documents explaining how public school districts can live within that new normal, stretching their dwindling dollars by becoming more productive and efficient.<sup>9</sup>

Meanwhile, governors on both sides of the aisle, facing tight budgets and the end of federal aid that had been distributed to temporarily plug state budget holes, ramped up their rhetoric for even deeper cuts to education spending. Florida governor Rick Scott, for example, in justifying his cuts to the state’s education budget, remarked, “We’re spending a lot of money on education, and when you look at the results, it’s not great.” In his 2011 “State of the State” address, New York governor Andrew Cuomo declared, “Not only do we spend too much, but we get too little in return. We spend more money on education than any state in the nation, and we are number 34 in terms of results.” More recently, in reference to a legal challenge brought against New York State by small city school districts, Cuomo opined: “We spend more than any other state in the country. It ain’t about the money. It’s about how you spend it—and the results.” Similarly, New Jersey governor Chris Christie told the *Wall Street Journal* that “New Jersey taxpayers are spending \$22,000 per student in the Newark school system, yet less than a third of these students graduate, proving that more money isn’t the answer to better performance.”<sup>10</sup>

Notably, the attack on public school funding was driven largely by preferences for conservative tax policies at a time when state budgets experienced

unprecedented drops in income and sales tax revenue. But the rhetoric has persisted, and perhaps even escalated, despite modest but steady economic recovery.

### CONSEQUENCES FOR PUBLIC SCHOOLS

The slow but steady economic recovery has not yet yielded a turnaround in funding for public schools, and the damage that was done to state school finance systems beginning in 2008 has not been rectified. According to a 2016 report from the Center on Budget and Policy Priorities (CBPP):

- Thirty-five states provided less *overall* state funding per student in the 2014 school year (the most recent year available) than in the 2008 school year, before the recession took hold.
- In 27 states, local government funding per student fell over the same period, adding to the damage from state funding cuts. In states where local funding rose, those increases rarely made up for cuts in state support.<sup>11</sup>

In addition, using data from the *School Funding Fairness Data System*, which builds on prior recurring reports on school funding equity (“Is School Funding Fair?”), and applying an adjustment for maintenance of competitive employee wages over time, I’ve found that only ten states had increases in current expenditures (on average) from 2008 to 2015: Washington, Iowa, Minnesota, Nebraska, Pennsylvania, New York, New Hampshire, North Dakota, Connecticut, District of Columbia, Illinois, Alaska.<sup>12</sup> The vast majority of states still spend less than they did, on average, across districts at the onset of the economic crisis.

The Kansas saga is particularly illustrative of the connection between widely held tax policy preferences and school funding. Sam Brownback was elected governor of Kansas in 2010 and took office in 2011 with the promise of introducing dramatic tax cuts that would be like a “shot of adrenaline into the heart of the Kansas economy.”<sup>13</sup> Instead, Brownback’s tax cuts were more like an overdose of Propofol for the state’s economy and public schools. In May 2012, as the economy was beginning to slowly rebound nationally, Governor Brownback signed major tax cuts that went into effect in January 2013. The state budget, already in tenuous territory, soon after suffered a \$700 million shortfall, leading to bond rating downgrades and substantial cuts to school funding in subsequent years. In March 2015, state legislators, with encouragement from the governor, abandoned the school finance formula altogether.

School years ended early in some districts due to funding shortfalls, and the state faced additional bond rating downgrades, having spent down operating savings and dealing with further budget shortfalls.<sup>14</sup>

As of 2017, state general aid for schools in Kansas was down 13 percent from 2008. Only Kentucky, Alabama, and Oklahoma have cut more.<sup>15</sup> The tax cuts did not, as Governor Brownback asserted, pay for themselves through economic stimulus. Rather, Kansas job growth has been an anemic 3.3 percent compared to the fall 2016 national average of 8.4 percent.<sup>16</sup> In 2016 Kansans elected new legislators who promptly reversed the tax cuts and then overrode the governor's veto of that reversal. But for too long ideology trumped reality. The Kansas tax policy "experiment" went horribly wrong, and the victims of that experiment are a generation of Kansas schoolchildren.

Some might declare Kansas as a particularly bad outlier. As a caricature of conservative social and economic ideology, Kansas is a convenient punching bag.<sup>17</sup> Certainly, the damage inflicted by the Brownback tax experiment does warrant criticism. But, by the numbers, Kansas remains among the most average of average states in our nation on many metrics, with many other states spending far less on their schools and performing much more poorly on available measures of school quality and student outcomes.

Perhaps the most important truth regarding US public schools is that our education system is actually fifty-one separate educational systems providing vastly different resources, on average, and with vastly different outcomes. Some of those fifty-one systems have invested in equitable and adequate school systems, have shown great improvement in student outcomes, and compare favorably with even the highest-performing nations. Other states, however, have not made that investment, and their outcomes show it. Nonetheless, US schools on average have shown significant improvement on national assessments during periods when average spending has increased across states but have declined in more recent years as average spending declined.<sup>18</sup>

### FALSE PROMISES OF COST-FREE SOLUTIONS

The response of the education reform community to the narrative that US public schools are inefficient and noncompetitive, a narrative they themselves largely crafted and promoted, has been to propose quick-fix remedies and magic elixirs, which fall more broadly into the category of "cost-free solutions." The theory of action guiding these remedies and elixirs is that public, government-run schooling can be forced to operate more productively and

efficiently if it can be reshaped and reformed to operate more like privately run, profit-driven corporations/businesses. If the public system is failing and inefficient, and investing more doesn't solve the problem, then we must look to more efficient enterprises and sectors for solutions. Broadly, popular reforms have been built on the beliefs that the private sector is necessarily more efficient; that competition spurs innovation (and that there may be technological solutions to human capital costs); that data-driven human capital policies can increase efficiency/productivity by improving the overall quality of the teacher workforce.

One core element of such reform posits that US schools need market competition to spur innovation and that market competition should include government-operated schools, government-sanctioned (charter) privately operated schools, and private schools. In the extreme case, some have argued that the government-run schools should cease to exist and that government (or a private board appointed by mayors or governors) should merely oversee a portfolio of privately managed providers. This may include, among other things, technological substitution (e.g., replacing in-person teaching with online alternatives and "unbundling" education in order to better prepare students for future careers that don't yet exist). Another asserts that US schools need to adopt the analytics and data mining methods to reshape the teacher workforce—that is, to identify and dismiss the "bad" teachers and to pay the "good" teachers more. Effective implementation requires elimination of teacher job protections, including any preferences for seniority status as well as tenure and due process requirements, both of which serve as barriers to speedy dismissal.

Aside from the question of how well these strategies have worked in the private sector—there's plenty of evidence that they have not—there is little reason to believe that these magic elixirs will significantly change the productivity/efficiency equation or address issues of equity, adequacy, and equal opportunity.<sup>19</sup>

#### TOOLS AND DATA FOR ESTABLISHING THE BASELINE

These days, we have readily available the data, tools, and a significant body of research to enable us to fact-check the foundations of the failing schools narrative and to evaluate the efficacy of proposed quick fixes. We don't need to be so readily coerced into a panic state that requires immediate policy response. More importantly, we must avoid falling for the claim that "anything is better

than the status quo,” because it is always possible to make things worse, especially when acting in haste. Better understanding the status quo, and how we got there, is a first step toward determining the best path forward.

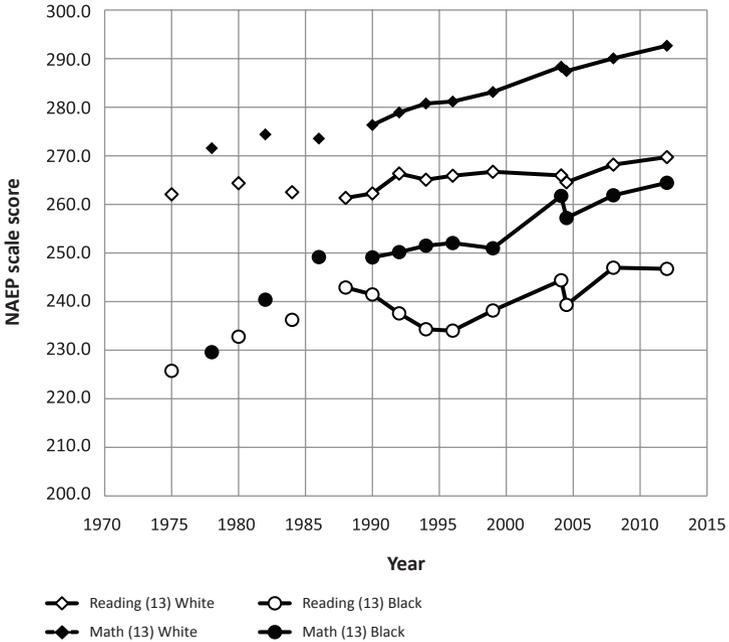
A reality check on long-term national trends in actual student outcomes and in school resources is in order. The need for disruptive reform and magic elixirs derives primarily from what critics see as our massive increases in spending coupled with our virtually flat student outcomes over time. But are those claims even remotely correct?

First, are US student outcomes really “virtually flat” over time? Richard Rothstein of the Economic Policy Institute critiqued Bill Gates’s assertion of “virtually flat” student outcomes in a memo titled “Fact-Challenged Policy,” showing that, in fact, “on these exams [National Assessment of Educational Progress], American students have improved substantially, in some cases phenomenally.”<sup>20</sup> Related work by Rothstein and Martin Carnoy has confirmed that, when accounting for differences in student disadvantage, US students perform much better than what is suggested by commonly cited, unadjusted rankings that fail to account for changes in subgroup proportions when aggregating test results.<sup>21</sup>

In 2010, Educational Testing Service (ETS) released “The Black-White Achievement Gap: When Progress Stopped,” a report in which Paul Barton and Rich Coley explored the Black-White achievement gap from the 1970s to 2008.<sup>22</sup> Their goal was to explore trends in Black-White achievement gaps and changing conditions that may explain those trends. Barton and Coley explained that “from the early 1970s until the late 1980s, a very large narrowing of the gap occurred in both reading and mathematics, with the size of the reduction depending on the subject and age group examined.” Reductions in achievement gaps were particularly pronounced in reading among thirteen- and seventeen-year-olds, though they were still significant in mathematics. However, “during the 1990s, the gap narrowing generally halted, and actually began to increase in some cases.” The authors noted some additional gap narrowing from 1999 to 2004 and mixed findings from 2004 to 2008. Even during the period from 1990 to 2008, though, achievement gains for Black fourth- and fifth-grade students have been substantial in mathematics in particular and have outpaced their White peers.<sup>23</sup>

Figure 1.1 displays the long-term trends for Black and White children at age thirteen on the National Assessment of Educational Progress (NAEP) long-term trend assessments. Both Black and White scores trend upward,

FIGURE 1.1 NAEP long-term trends on reading and math for thirteen-year-olds

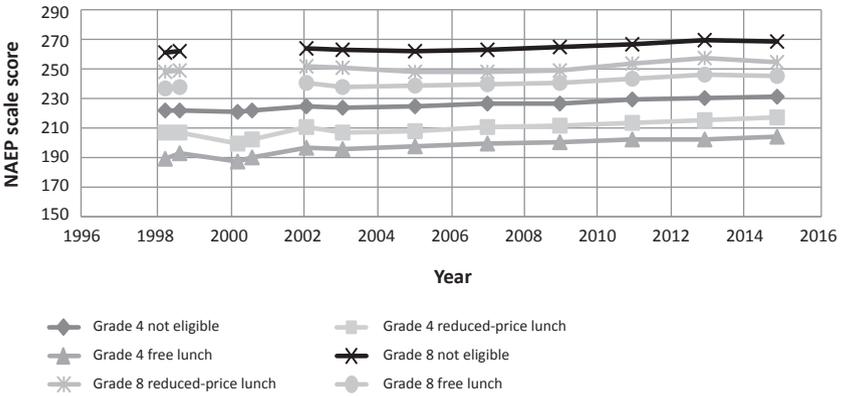


Sources: NAEP long-term trend reading assessments for 1971, 1975, 1980, 1984, 1988, 1990, 1992, 1994, 1996, 1999, 2004, 2008 (Washington, DC: National Center for Education Statistics); NAEP long-term trend math assessments for 1978, 1982, 1986, 1990, 1992, 1994, 1996, 1999, 2004, 2008, 2012 (Washington, DC: National Center for Education Statistics).

and, as noted by Barton and Coley, Black students' scores increase significantly from the 1970s through 1990. Figure 1.2 shows more recent trends for children by income status for reading, and figure 1.3 shows the trends for math at fourth grade and eighth grade. For reading, fourth-grade scores have continued to trend upward for all groups, but for eighth graders scores dipped slightly in 2015. For math, the overall upward trend was also consistent across grades, but, again, with a dip in 2015. It would be premature to assume any cause for the 2015 dip.

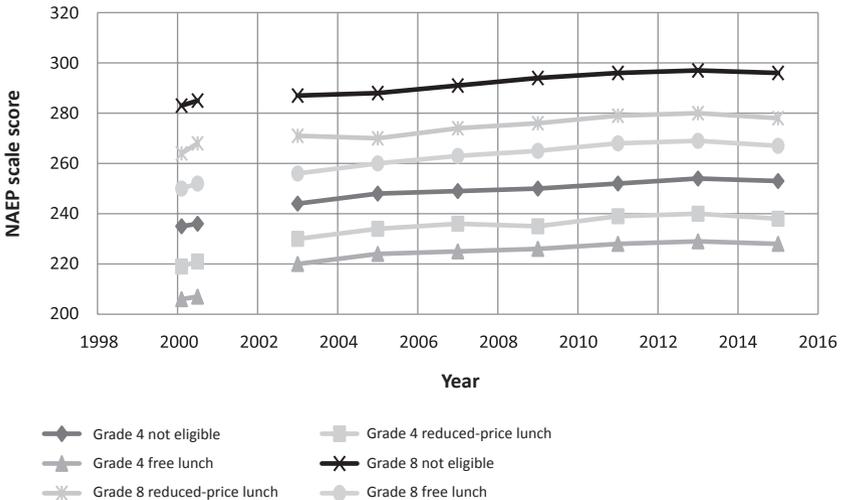
The second part of the question is whether spending has in fact skyrocketed while achievement has remained "virtually flat." Figure 1.4 compares nominal (not inflation adjusted) current spending per pupil to current spending per pupil adjusted for the costs of maintaining competitive wages over time. Figure 1.3 shows escalating spending accompanied by "virtually

FIGURE 1.2 NAEP reading by income status

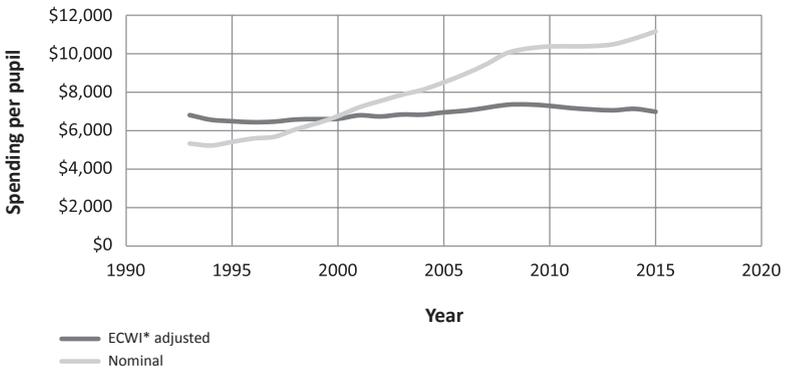


Sources: NAEP long-term trend reading assessments for 1992, 1994, 1998, 2000, 2002, 2003, 2005, 2007, 2009, 2011, 2013, 2015.

FIGURE 1.3 NAEP math by income status



Sources: NAEP long-term trend math assessments for 1990, 1992, 1996, 2000, 2003, 2005, 2007, 2009, 2011, 2013, 2015.

**FIGURE 1.4** Current operating expenditures per pupil adjusted for labor costs


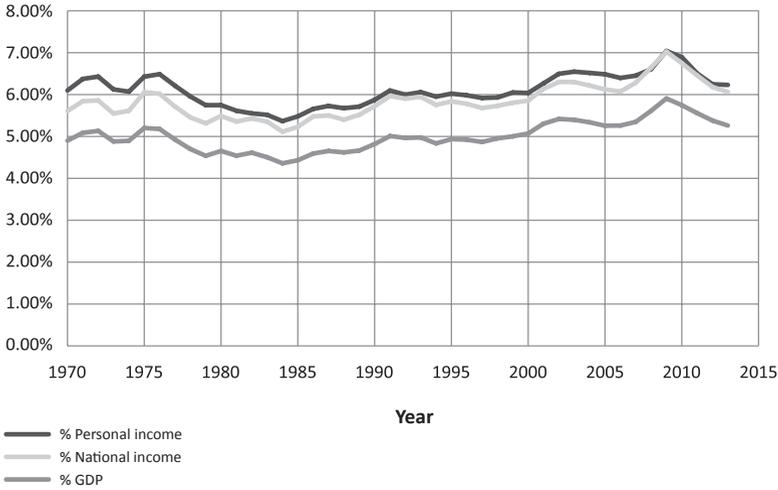
Note: \*Education Comparable Wage Index ([http://bush.tamu.edu/research/faculty/Taylor\\_CWII/](http://bush.tamu.edu/research/faculty/Taylor_CWII/))

Source: Baker et al., *School Funding Fairness Data System*.

flat” test scores; a recurring figure that my colleagues and I refer to as “The Graph” uses a consumer price index, which is less appropriate for evaluating the value of the education dollar over time. By 2015 the average school district nationally was roughly at a ten-year break-even point on per-pupil spending; that is, per-pupil spending hasn’t risen for a decade and has barely risen for over two decades (2.5 percent). So no, school spending is not dramatically increasing over time and has in fact declined in real terms from 2009 to 2015 (the most recent national district-level data). Figure 1.5 shows how, across decades, direct government expenditure on elementary and secondary education as a share of gross domestic product (GDP) has oscillated but is presently about where it was both fifteen years earlier (2000) and forty years earlier (1975). In short, education spending is not outstripping our economic capacity to pay for it.

School spending is largely driven by staffing costs. The wages paid and the number of staff are substantial drivers of current operating expenses (wage x quantity = personnel spending). But have those wages and staff numbers really escalated as much as some have claimed, thus driving increasingly inefficient spending? There is some truth to the fact that teaching specialists and school-level administrative positions have increased over time, in

FIGURE 1.5 Direct education expense as a share of gross domestic product and income

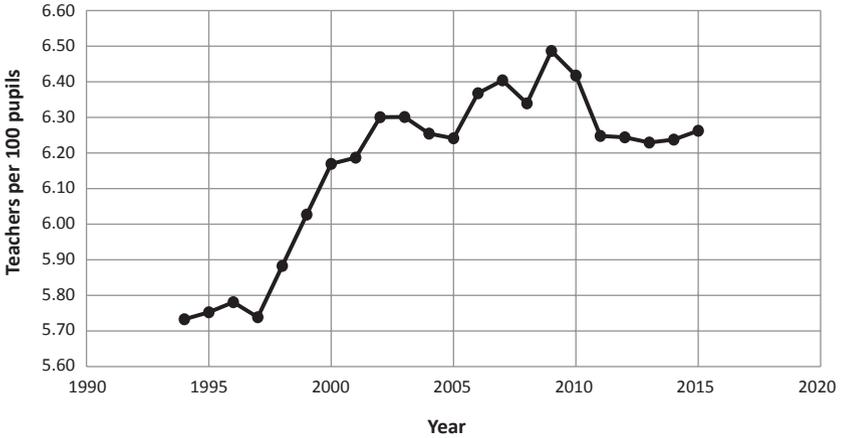


Sources: Current Population Survey: Income, US Census Bureau, <http://www.census.gov/hhes/www/income/data/historical/families/>; Population Estimates, US Census Bureau, [http://www.census.gov/popest/data/historical/2010s/vintage\\_2013/national.html](http://www.census.gov/popest/data/historical/2010s/vintage_2013/national.html) and <http://www.census.gov/popest/data/national/asrh/2014/index.html>; State and Local Government Finances, US Census Bureau, <http://www.census.gov/govs/local/>; National Income and Product Accounts Tables, Bureau of Economic Analysis, US Department of Commerce, [http://www.bea.gov/iTable/index\\_nipa.cfm](http://www.bea.gov/iTable/index_nipa.cfm).

part because of additional legal protections for specialized programs and services for children with disabilities.<sup>24</sup> But, as figure 1.6 shows, total numbers of teachers (including specialists) per 100 pupils have been at a break-even point for the last twelve to fourteen years. That means that since the early 2000s (when NAEP progress seemed to slow down), teaching staff numbers have remained relatively flat. There was a modest bump in the mid-2000s, but that subsided during the “new normal” period and has not since rebounded. It’s worth noting here that a recent comprehensive meta-analysis of interventions which improve outcomes for low-income students found that the most effective interventions were those involving increased human resources.<sup>25</sup>

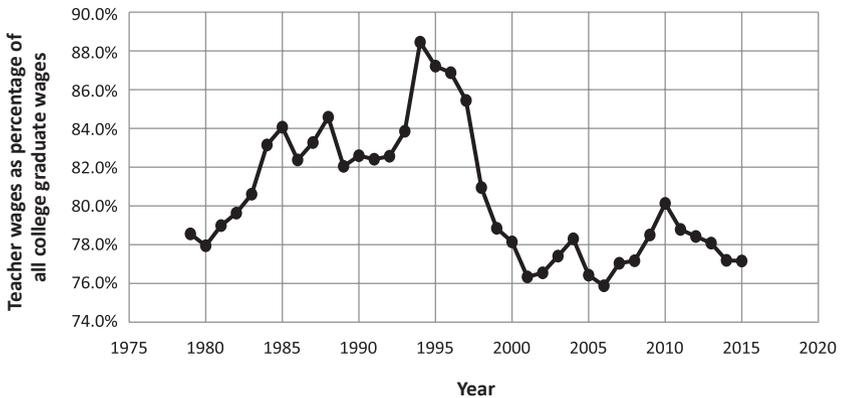
Figure 1.7 shows a comparison of teachers’ weekly wages to those of college-educated nonteachers from 1979 to 2015. For the past fifteen years, teacher wages have held constant at about 77 percent of nonteacher wages. Some assert that a teacher’s healthy and growing pension benefits are a substantial offset to this gap, noting that teacher benefits have increased by about 10–20 percent of wages since the early 2000s, whereas private-sector benefits

FIGURE 1.6 Teachers (all) per 100 pupils over time



Source: Baker et al., *School Funding Fairness Data System*.

FIGURE 1.7 Ratio of teacher weekly wages to college-educated nonteacher weekly wages



Notes: "College graduates" excludes public school teachers, and "all workers" includes everyone (including public school teachers and college graduates). Wages are adjusted to 2015 dollars using the CPI-U-RS. Data are for workers aged 18–64 with positive wages (excluding self-employed workers). Nonimputed data are not available for 1994 and 1995; data points for these years have been extrapolated and are represented by dotted lines (see appendix A for more detail).

Source: Sylvia Allegretto and Lawrence Mishel, "The Teacher Pay Gap Is Wider Than Ever: Teachers' Pay Continues to Fall Further Behind Pay of Comparable Workers" (report, Economic Policy Institute, Washington DC, August 9, 2016), <http://www.epi.org/publication/the-teacher-pay-gap-is-wider-than-ever-teachers-pay-continues-to-fall-further-behind-pay-of-comparable-workers/>.

have held constant at 10 percent of wages.<sup>26</sup> One problem with this is that the difference is expressed in percent, and the supposed 20 percent rate for teachers is over a wage that is 23 percent lower than private sector wages. Of course, it's a larger and growing percent of a lower and declining wage. Yet, even taking that percent as accurate, the increase would at best have raised teacher wages to about 84 percent of nonteacher wages in 2015.<sup>27</sup>

The data show that NAEP scores have increased substantively over the long term but have slowed in growth more recently, as has closure of racial achievement gaps; that school spending has been relatively stagnant for the past decade, as have staffing quantities and the competitiveness of teacher wages; and that over the shorter term, since 2008, spending, staffing, and wage competitiveness have all declined. This means that our students are not doing as badly as is claimed and we are not spending more, and there may be other factors affecting teacher quality (staffing levels and wage competitiveness) related to the decline in spending. These long-term trends are roughly the opposite of those used most often to proclaim the failures of American education. One clear implication of these trends, though, is that US public schools have in fact become more efficient over time, not less.

### MOVING FORWARD BY GOING BACK TO BASICS

The chapters that follow begin by taking us back to the conceptual underpinnings of school finance and the historical origins and basis for our current system. In chapter 2 I discuss the prerequisite conceptual frames for evaluating education systems, beginning with an overview of principles of financing public goods and services, and lay out conceptions of educational *equity*, *equal opportunity*, and *adequacy*. After all, if state school finance policies are intended to advance these goals, we must first understand what they mean. I also introduce conceptions of educational *productivity* and *efficiency*. We cannot reasonably discuss and evaluate whether proposed interventions and innovations are likely to advance productivity or efficiency in the absence of clear definitions and evaluation frameworks.

Chapter 3 delves into the common misperceptions and misdirections used to deemphasize the importance of money for improving school quality and achieving greater equity and for paving the way for cost-free alternatives. In this chapter I address five common arguments used for asserting that money really doesn't matter for school quality or equity. These range from deceptive presentation of research evidence, to manipulative representation

of data, to anecdotal claims of egregious spending and massive failures. I also examine two common arguments used to deflect focus from the amount of school spending, including the assertion that how money is spent is more important than how much and the argument that student background matters more than school spending.

In chapter 4 I make connections between revenue generated for education systems, spending allocated to schools, and the real resources in schools and classrooms derived from that spending. These connections are made across both states, based on vastly different state investment in public schooling, and districts within states. Where schools have more access to financial resources, schools can provide more staff, programs, and services and can compensate their staff more competitively. These connections hold for traditional public schools, charter schools, and for private schools. In each case, where schools have access to more financial resources, they tend to spend those resources on more and better-compensated people. Education remains a human resource-intensive endeavor. The quantity and talent of those human resources matter, and both cost money.

Chapter 5 dives into the research literature validating the importance of financial resources for schools and the real resources supported by those financial resources. A thorough review of major national studies shows that substantive infusions of financial resources resulting from judicial intervention have resulted in significant short-term and long-term gains for children attending schools that received the additional resources. In this chapter I also review literature on numerous studies of state-specific school finance reforms that yield findings largely consistent with recent national studies and look at studies of how that money is spent, specifically on the connections between class size and student outcomes and teacher compensation and student outcomes. Again, it all comes down to human resources.

An overview of the mechanics and design of state school finance systems makes up chapter 6, looking at how funding is calculated and how those calculations connect to principles of equity and adequacy. Here I also address those features of state school finance systems that are not necessarily connected to principles of equity and adequacy and instead are a function of political tradeoffs, some of which work in direct opposition to equity and adequacy goals.

Chapter 7 is a reality check on the state of state school finance systems. Using data from the *School Funding Fairness Data System*, I show that the

decline of state school finance systems has been uneven across states and has unevenly affected districts and schools and the children they serve. I also illustrate the intersection between the equity and adequacy of resources between local public school districts and resources for schools within those districts, including the role of charter school expansion in disrupting and eroding equity within school districts.

The final three chapters move us toward policy solutions. In chapter 8 I discuss frameworks and methods for evaluating productivity and efficiency of reforms and innovations and lay out a role for the federal government and state education agencies in providing technical support to evaluate educational interventions, while in chapter 9 I detail frameworks for understanding, evaluating, and informing the reform and revitalization of state school finance systems. In the final chapter I use two national data sets—the *School Funding Fairness Data System* and the *Stanford Education Data Archive*—to generate estimates of the costs of providing all districts and states with the resources necessary to achieve the relatively modest goal of current national average outcomes.<sup>28</sup> These estimates can be used to evaluate just how far we have to go to achieve even that modest goal in some states, such as Tennessee, Mississippi, Arizona, and New Mexico. This final chapter proposes a new approach for federal aid distribution that focuses on raising states to this modest standard while considering whether states themselves are contributing their fair share.