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DO POOR KIDS DESERVE LOWER-QUALITY EDUCATION THAN RICH KIDS? EVALUATING SCHOOL PRIVATIZATION PROPOSALS IN MILWAUKEE, WISCONSIN

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During the past year, Wisconsin state legislators debated a series of bills aimed at closing low-performing public schools and replacing them with privately run charter schools. These proposals were particularly targeted at Milwaukee, the state's largest and poorest school district.

Ultimately, the only legislation enacted was a bill that modestly increases school reporting requirements, without stipulating consequences for low performance. Nevertheless, the more ambitious proposals will likely remain at the core of Wisconsin's debates over education policy, and legislative leaders have made clear their desire to revisit them in next year's session. To help inform these deliberations, this report addresses the most comprehensive set of reforms put forward in the 2013–2014 legislative session.

Backers of these reforms are particularly enamored of a new type of charter school represented by the Rocketship chain of schools—a low-budget operation that relies on young and inexperienced teachers rather than more veteran and expensive faculty, that reduces the curriculum to a near-exclusive focus on reading and math, and that replaces teachers with online learning and digital applications for a significant portion of the day. Rocketship proposes that its model—dubbed “blended learning” for its combination of in-person and computerized instruction—can cut costs while raising low-income students' test scores (Rocketship Education 2011).

The call for public schools to be replaced by such tech-heavy, teacher-light operations comes from some of the most powerful actors in local and national politics: the major corporate lobbies, including Wisconsin Manufacturers and Commerce, Americans for Prosperity, and the Metropolitan Milwaukee Association of Commerce (MMAC). It is these groups, rather than parents or community organizations, that provided the impetus for legislators to consider proposals for mass school closure and privatization in Milwaukee.

In advocating school privatization, MMAC, allied corporate lobbies, and corporate-funded think tanks claim to be acting out of social altruism, motivated by the tragedy of poor children whose needs are unmet in the public school system. Yet—as is detailed later in this report—these same organizations have traditionally opposed what are typically considered two of the fundamental building blocks for improving education, particularly for poor children: adequate school funding and effective anti-poverty policies.

This report evaluates the “blended learning” model of education exemplified by Rocketship and seeks to understand how the “school accountability” legislation debated during the most recent legislative session would likely affect Milwaukee schools. This briefing paper also explains how such proposals might fit within the broader economic agenda of both local and national corporate lobbies. Above all, the report questions why an educational model deemed substandard for more privileged suburban children is being so vigorously promoted—perhaps even forced—on poor children in Milwaukee.

Upon examination, it appears that charter privatization proposals are driven more by financial and ideological grounds than by sound pedagogy:

- National research shows that charter schools, on average, perform no better than public schools. There is thus no basis for believing that replacing traditional public schools in Milwaukee with privately run charters will result in improved education.

- The “blended learning” model of education exemplified by the Rocketship chain of charter schools—often promoted by charter boosters—is predicated on paying minimal attention to anything but math and literacy, and even those subjects are taught by inexperienced teachers carrying out data-driven lesson plans relentlessly focused on test preparation. But evidence from Wisconsin, the country, and the world shows that students receive a better education from experienced teachers offering a broad curriculum that emphasizes curiosity, creativity, and critical thinking, as well as getting the right answers on standardized tests.
- Blended-learning schools such as Rocketship are supported by investment banks, hedge funds, and venture capital firms that, in turn, aim to profit from both the construction and, especially, the digital software assigned to students. To fund the growth of such operations, money earmarked for Milwaukee students is diverted to national headquarters and other cities where the company seeks to expand. Furthermore, the very curricular model that Rocketship employs is shaped not simply by what is good for kids but also, in part, by what will generate profits for investors and fuel the company’s ambitious growth plans.
- The proposed “school accountability” bill that Wisconsin State Senate Education Committee Chair Luther Olsen drafted in January 2014—which embodies the most ambitious version of corporate-backed school reform—measures school achievement in ways that are skewed against poor cities and that exempt charter schools from equal accountability. Such a bill would likely result in shutting a growing number of public schools and concentrating the city’s neediest students in a shrinking public system that is denied the resources to serve them. Eventually, this would bankrupt the public school district.
- Some of the best options for school improvement are outlawed in Sen. Olsen’s draft bill. For instance, Milwaukee’s award-winning ALBA (Academia de Lenguajes y Bellas Artes) school is a publicly run charter school that outperformed every privately run charter in the city. Yet under the proposed legislation, this school would be banned from opening more campuses, while privately run schools with much worse performance would be encouraged to expand.
- To truly improve education in Milwaukee, we must start with the assumption that poor children are no less deserving of a quality education than rich children. As such, the schools that privileged suburban parents demand for their children should be the yardstick we use to measure the adequacy of education in the city. This means subjecting all schools—whether public, charter, or voucher—to the same standards of accountability, including measurements that account for the economic and disability challenges their students face, and that recognize the value of a broad curriculum and experienced teachers who are qualified to develop the full range of each child’s capacities.

Are charter schools better than public schools?

Over the past three years there has been an unprecedented wave of legislation in states across the country aimed at transforming public education. Debates on education policy draw an extraordinarily wide number of participants, including parents, students, and a broad assortment of nonprofit advocacy groups. Yet when examining which of the hundreds of education-related bills introduced actually become law, it is generally those backed by major corporate lobbies, such as the American Legislative Exchange Council (ALEC), that advance furthest.

Until the past decade, these lobbies paid scant attention to education policy. But as will be explained in greater detail later in this paper, in recent years they have become dominant players in school reform debates—particularly in the promotion of online learning and privately run charter schools.

At their most ambitious, corporate advocates have recently sought to promote the replacement of public schools by privately run charters not on a school-by-school basis, but through the transformation of whole school districts. This strategy was first enacted in New Orleans following Hurricane Katrina, when the Bush administration refused to fund the reopening of public schools, and instead provided \$45 million for charter schools to take over the district (Saulny 2006). As the charter industry has grown and as corporate money has become increasingly influential in both state and local politics, corporate lobbyists have sought to replicate the New Orleans model in other poor cities. Whether dubbed a “recovery district,” “achievement district,” or “portfolio district,” these endeavors all function along similar lines: Invoke standardized tests to declare a large swath of schools to be irredeemable failures, then close them and send their students (and their tax dollars) to privately run startups. In the process, the charter industry and the investors who profit from it are able to realize growth in leaps and bounds rather than school-by-school. When the Metropolitan Milwaukee Association of Commerce initiated the call to create an “accountability district” for Milwaukee schools, it looked to New Orleans as its model (Richards 2013b).

It is thus crucial to determine whether charter schools are indeed more effective than traditional public schools. As the following sections explain, there is no evidentiary basis for believing that substituting charters for public schools will, in itself, improve education in Milwaukee or any other city. Furthermore, the education model of the Rocketship chain of schools, a company central to the education reform push in Milwaukee, is particularly ill-suited to providing the city’s children with a high-quality education.

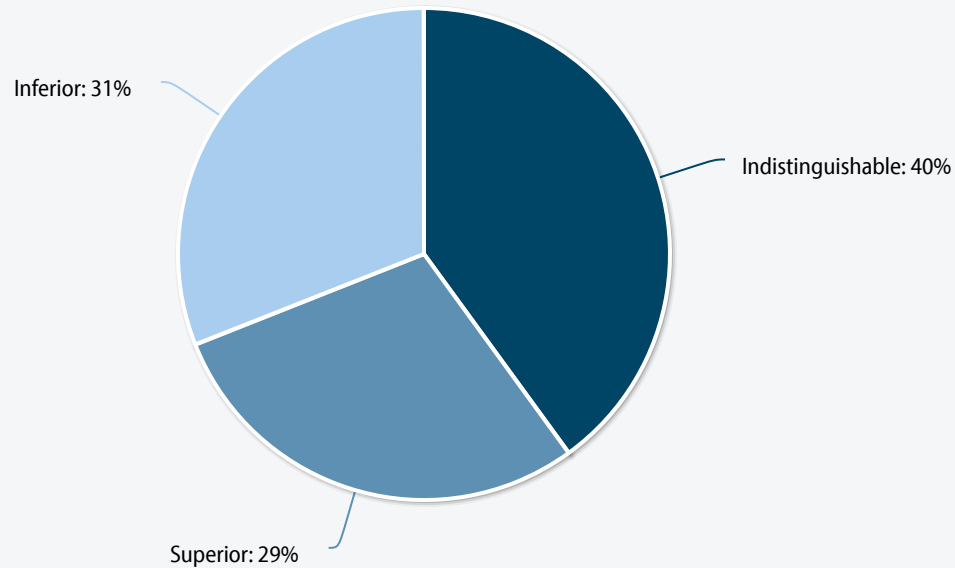
Evidence on charter schools’ efficacy

The original image of a charter school revolves around a lone dedicated educator, or a local community of parents, who decide to take over a school and make it into something better for their kids. In reality, rather than a proliferation of small experiments, the last few years have witnessed a pattern of corporate consolidation. By 2011 less than 17 percent of charter students were in schools run by companies that operated three or fewer schools. The majority were overseen by corporations operating 10 or more schools (Miron and Gulosino 2013, iv). By far the fastest-growing sector of the industry has been online or virtual schools (Miron et al. 2012, 18).

As charter schools have grown over the past two decades, multiple studies have compared their performance with that of traditional public schools. Their conclusion: There is no discernible difference. One recent meta-analysis reviewed the results of 83 studies conducted over 12 years, concluding that “on the whole, charters perform similarly to traditional public schools” (Miron and Urschel 2012, 228–230).

In many cases, the promise of charter schools has turned into a dismal reality. In Indiana, nearly half the state’s charter schools received grades of “D” or “F” in 2012 (Indiana Department of Education 2012). In Ohio, which has authorized charter schools in the state’s eight largest cities for nearly 20 years, nearly 84,000 students—or 87 percent of the state’s charter students—were in schools graded “D” or “F” in 2012–2013¹ (Bush 2013). Indeed, one study found that, after controlling for poverty and other student demographics, public schools scored significantly higher on elementary school math tests (Lubienski and Lubienski 2014, 80).

Charter schools' math score gains as compared with those of public schools, 2013



Source: CREDO (2013), 57

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The largest national studies have been conducted by Stanford University–based Center for Research on Education Outcomes (CREDO), an organization generally supportive of charter schools. Comparing math scores of charter and public school students, CREDO’s 2009 study found that 17 percent of charter schools had superior growth in math scores, 37 percent were inferior, and 46 percent were “statistically indistinguishable” from public schools. Averaged across all schools, the impact of attending a charter school was a slight—but statistically significant—negative impact for both math and reading gains (CREDO 2009, 3, 22).

When CREDO updated its research in 2013 it found better news for charter schools, though public schools still had superior math performance, as shown in **Figure A**. On the whole, however, the authors report that “the overall results show relatively small average impacts of charter school attendance on student academic growth” (CREDO 2013, 63). Indeed, even the subgroups for whom charters appeared to have the most impacts showed very modest differences from their public school peers (Maul and McClelland 2013).²

Thus, there is no evidentiary basis for believing that substituting charters for public schools will, in itself, improve education in Milwaukee or any other city. Researchers have, however, pointed to several policies that would improve the performance of charter schools. First, charter performance is best in states that strictly limit the number of charter authorizers. Second, charter schools do better in states that have relatively fewer of them. Finally, the single worst-performing schools are for-profit online charters (CREDO 2009, 4; Miron et al. 2012, v). Unfortunately, ALEC and the other major corporate lobbies are advocating for policies that run exactly counter to these findings: They call for

expanding the number of both charter schools and charter authorizers, and they vigorously promote the growth of online education.³

Virtual schools are by far the most profitable sector of the charter industry, thanks to low production costs and to ALEC model bills requiring they receive the same amount of taxpayer dollars per student as traditional schools. Yet their market is inherently limited, as the number of families who will choose to enroll their children in an entirely online curriculum—essentially, homeschooling them by computer—remains a small minority. The profit margins of “blended learning” schools—which split students’ days between in-person and online instruction—aren’t as high as those of entirely virtual schools, but they may be the next best thing. For this reason, investment banks, hedge funds, and venture capital firms have increasingly looked to “blended learning” as a preferred model for urban school districts. Further, while it is difficult to gauge their true costs, as they have been supported to date by generous subsidies from both government and private donors, such schools are touted as a lower-cost alternative to traditional education (Horn and Evans 2013). Thus, this model appeals to tax-cutting politicians as well as investors.

Rocketship Education is the leading pioneer of the “blended learning” model (Bowman 2011; Layton 2012). Moreover, it enjoys the backing of Milwaukee business leaders. Tim Sheehy, president of the Metropolitan Milwaukee Association of Commerce, sits on Rocketship’s board, and the association raised \$2.5 million in private contributions to help make Rocketship the first national charter chain operating in the city (Richards 2013a). Indeed, the company is so central to school privatization plans that, when the Wisconsin State Senate Education Committee first held hearings on a bill that would make it easier for charter companies to add more schools without need for public approval, one legislator reported hearing Committee Chairman Sen. Luther Olsen tell a colleague that “we’re just doing this for Rocketship” (Conniff 2013). For all these reasons, it is important to evaluate the likely impact on Milwaukee students of a large-scale expansion of Rocketship’s “blended learning” model.

The Rocketship education model

At the core of what distinguishes Rocketship’s education model from other schools are four principles: the replacement of teachers with computers for a significant portion of the day; a reliance on young and inexperienced teachers for the rest of the day; narrowing the curriculum to math and reading with little attention to other subjects; and even within these subjects, a relentless focus on preparing students for standardized tests.

A 2012 national profile of the company describes Rocketship as an experiment aimed at “mass production” of education (Merrow 2012). The first step in creating a mass-production school is shrinking the curriculum to the basics: math and literacy. The company’s “mission statement” for its Milwaukee school consists of one sentence: “Rocketship Milwaukee ... will eliminate the achievement gap by graduating our students at or above grade level in Literacy and Math” (Rocketship Education 2011, 7). More recently, the company has added a modest amount of class time for science, social studies, art, and other “enrichments” (Rocketship Education 2014b; Haines, Voskuil, and Dilber 2014). But none of these is taught by faculty certified in these fields, and these subjects are not generally taught as separate classes. Instead, science is “embedded” in math classes, and both art and social studies are “embedded” in language arts. Thus, the “key outcomes” of social studies instruction are defined largely in terms of literacy goals, including “the ability to use informational text, mastery of academic vocabulary, and increased reading and writing skills” (Rocketship Education 2011, 32). Activities unrelated to literacy—enacting a mock Congress, writing one’s own constitution, or bringing in family members to tell oral histories—may be expected to be marginalized within this curriculum.

Most importantly, teachers' salaries are primarily based on their students' math and reading scores (Rocketship Milwaukee 2014b). No matter what theoretical job description an employee may be given, when she is told what determines her salary, that is the *real* job description she takes to heart. By linking salaries so tightly to math and reading tests, Rocketship implicitly instructs teachers to devote minimal attention to anything else. Thus, it may be unsurprising that one family reported that, in three years of their daughter attending Rocketship's Mateo Sheedy Elementary School in San Jose, California, they had never seen her receive homework in any subject other than math and literacy (Rocketship Mateo Sheedy Parent, 2012).

Digital instruction: The Learning Lab

Starting in kindergarten, Rocketship students spend two hours a day in the school's "Learning Lab," which is staffed by "tutors" with no certification and whose only required credential is a high school diploma.⁴ *Scholastic Administrator* magazine has dubbed the Learning Lab "the financial and academic key" to Rocketship (Fensterwald 2011). Here, students can read independently from a set of "leveled books" or, if in the bottom 25 percent of their class, may participate in small-group remedial sessions. But the heart of the Learning Lab is online learning—long rows of computers where students are supposed to engage with instructional software. Rocketship touts online instruction for allowing each student to go at his own pace, providing an "individualized" learning experience.

Digital instruction is also key to the company's financial strategy. With students spending a quarter of their days in the Learning Lab, Rocketship has cut the size of a normal elementary school teaching staff from 21 to 16, generating an estimated \$500,000 per year in savings (Fensterwald 2011). Founding CEO John Danner has expressed hopes to increase online time to 50 percent (Danner 2010). If that goal is realized, teaching staff will be cut yet further, with each school saving an estimated \$1 million per year.

Inexperienced, high-turnover teaching staff

In addition to the switch from human to digital instruction, Rocketship appears to rely on an educational model that functions with an inexperienced, high-turnover teaching staff. The Rocketship school in Milwaukee pays Teach for America (TFA) \$52,000 per year to serve as a steady source of beginner teachers (Rocketship Education 2011, Attachment G), and nationwide 75 percent of the company's teachers are either current fellows or recent graduates of TFA (Merrow 2012). TFA is not designed to produce career teachers. Indeed, part of its recruitment message to college graduates is that the program will make them competitive for graduate school or corporate employment after their two years in the classroom (Teach for America 2014).⁵ A company that relies on TFA to supply its teachers must plan on a high degree of turnover; that is part of how TFA is *supposed* to work. Unsurprisingly, then, on average almost 30 percent of Rocketship teachers leave every year, as shown in **Table 1**—a rate more than twice as high as in the Milwaukee school district (De La Rosa & Co. 2014, B-22; Richards and Crowe 2013).

Yet Rocketship seems designed to function with such a high quit rate. In the proposed five-year budget for Milwaukee, Rocketship budgets essentially no salary increase whatsoever for its teachers. In real (inflation-adjusted) terms, a teacher who joined Rocketship Milwaukee when it opened and stayed for five years would end up earning \$2,900—or 4.9 percent—less than when he began (Rocketship Education 2011, Appendix G; Congressional Budget Office 2013, 5). Thus, either teachers are expected to remain dedicated to a job that includes annual real paycuts, or the company's business plan counts on high turnover, with more experienced teachers being regularly refreshed by newer and cheaper recruits. The result is that the neediest students are taught by the least experienced teachers, who keep disappearing.

TABLE 1

Teacher turnover in Rocketship schools, 2012–2013 school year

<i>Rocketship Si Se Puede</i>	37%
<i>Rocketship Brilliant Minds</i>	29%
<i>Rocketship Mateo Sheedy</i>	33%
<i>Rocketship Los Suenos</i>	22%
<i>Rocketship Mosaic</i>	28%
<i>Rocketship Discovery Prep</i>	28%
<i>Rocketship Alma Academy</i>	23%
<i>Rocketship average</i>	29%

Source: Rocketship Education, as reproduced in De La Rosa & Co. (2014)

Particularly for children from neighborhoods of concentrated poverty, who may experience myriad difficulties and disruptions in their home lives, one of the most important things a school can provide is a stable relationship with a mature adult. Rocketship’s staffing strategy, however, poses an impediment to providing this type of support.

Teaching to the test

Both in the Learning Lab and in the classrooms, Rocketship’s pedagogy revolves relentlessly around state standardized tests. In national debates over education policy, there is widespread controversy over how central a role standardized tests should play in K–12 education. The accuracy of the tests is often disputed—including by some of those inside the testing industry (Rhoades and Madaus 2003; Farley 2009). Indeed, Seattle teachers recently boycotted the test Rocketship relies on when they discovered that, at the high school level, its margin of error was greater than the measure of annual improvement used to determine student success (Strauss 2013). For a large share of children, timed math tests produce anxiety that both harms their performance and lowers their self-confidence, leading girls especially to avoid the subject when they reach high school, having been convinced they are “bad at math” (Boaler 2012; Carisch 2012).

At Rocketship, however, everything is built around the tests. All students take the state standardized exam once every eight weeks. In addition, they must take a second, proprietary exam (the Northwest Evaluation Association’s Measuring Academic Progress, or MAP) three times a year (Rocketship Education 2011, 39). Finally, every digital application students use in the Learning Lab creates a host of daily assessments—how they performed on quizzes and games, how far they progressed in reading, what level math problems they solved, and which they got wrong. These daily data are intended to help teachers “[plan] lessons based on students’ current levels” (Rocketship Education 2011, 38).

Thus, the school’s operation is designed to be a seamless exercise. Both digital and classroom instruction are designed around the content of standardized tests, teachers’ salaries and promotions are determined in large part by the improvement in their students’ test scores, student progress toward these improvement goals is measured through regular practice exams as well as daily feedback from digital math and reading software, and this feedback, in turn, is used to fine-tune subsequent lesson plans to produce better test outcomes.

Indeed, even in the classrooms, lesson plans are geared to the Common Core standards that form the basis of state exams. Rocketship has developed a practice of “backwards mapping State standards to identify the main objectives” of a subject. “We then develop units and lesson plans within each unit to focus on these . . . objectives” (Rocketship Education 2011, 29). Standardized tests are no longer regarded as one partial and imperfect measure of education. Here, tests define both the content and scope of education—if students test well, they are, by definition, well-educated.

Rocketship by the numbers: Falling performance, high turnover, and repeated redesigns

Given that Rocketship places such a strong emphasis on standardized testing, it is telling that, even by this measure, the company has faced struggles and disappointments.

While Rocketship has realized significant financial growth over its short lifetime—from 2010 through 2013, the company’s net assets increased by over 600 percent, from \$2.2 million to \$15.8 million (De La Rosa & Co. 2014, B-23)—the schools’ academic achievements, even by their own measures, have not followed the same trajectory.

In the company’s earliest years, some Rocketship schools achieved impressive test scores: Its first school, started in 2007, was the highest-ranked low-income elementary school in Santa Clara County that year, and the seventh-highest in California (De La Rosa & Co., B-27). Over the past four years, however, test scores have fallen at this and every other Rocketship school.

As measured by California’s Academic Performance Index, the average score for the Rocketship network as a whole has declined by just over 10 percent from 2008–2009 to 2012–2013 (De La Rosa & Co., B-28).

As shown in **Figure B**, all five Rocketship schools that reported test results for both 2011–2012 and 2012–2013 show significant declines in academic performance.

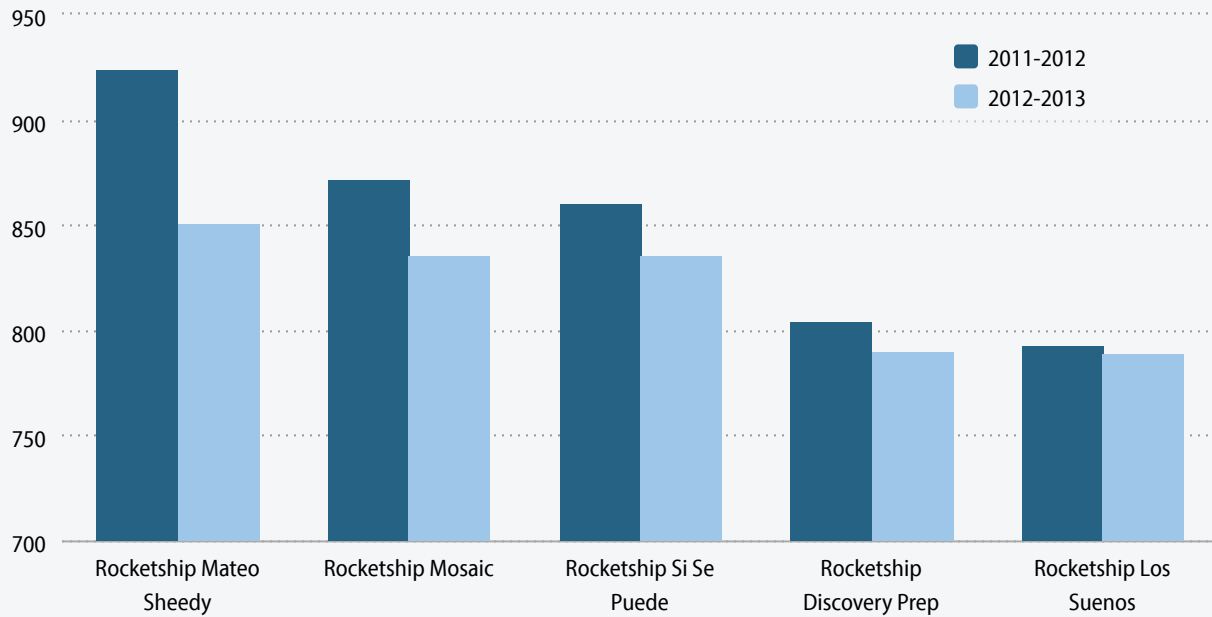
Indeed, in 2012–2013, all seven of the Rocketship schools failed to make adequate yearly progress according to federal standards, as shown in **Table 2**. Under the No Child Left Behind law, a school that fails to make adequate yearly progress for two years in a row is deemed in need of “program improvement” and subject to a series of regulatory interventions, including engaging outside experts to determine “what changes need to be made . . . to improve student achievement,” and setting aside 10 percent of each school’s Title I funding to provide additional teacher training (California Department of Education 2010). Despite these interventions, Rocketship’s failure to achieve federal math and reading standards has gotten worse rather than better. In 2011–2012, two of Rocketship’s schools were subject to such turnaround mandates; by 2012–2013 four of the company’s seven schools were found in need of “program improvement” (De La Rosa & Co. 2014, B-30–31).

The variety of stumbling blocks encountered by Rocketship schools have led school boards in San Francisco, Oakland, and East Palo Alto, California, and the state of Texas, to reject Rocketship’s applications to open schools in their jurisdictions, with the San Francisco board determining that Rocketship “presents an unsound educational program” (San Francisco Unified School District 2011).

Indeed, Rocketship itself has noted problems with its model, with CEO John Danner reporting in 2013 that the company had not yet identified computer applications that can be appropriately individualized to each student, and the

FIGURE B [VIEW INTERACTIVE on epi.org](#)

Rocketship schools' academic performance, as measured by California Academic Performance Index, 2011–2013



Source: Rocketship Education, as reproduced in De La Rosa & Co. (2014)

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TABLE 2

Rocketship schools' achievement of Adequate Yearly Progress, 2010–2013

	2010–2011	2011–2012	2012–2013
<i>Rocketship Si Se Puede</i>	Fail	Fail	Fail
<i>Rocketship Brilliant Minds</i>	N/a	N/a	Fail
<i>Rocketship Mateo Sheedy</i>	Pass	Pass	Fail
<i>Rocketship Los Suenos</i>	Fail	Fail	Fail
<i>Rocketship Mosaic</i>	N/a	Fail	Fail
<i>Rocketship Discovery Prep</i>	N/a	Fail	Fail
<i>Rocketship Alma Academy</i>	N/a	N/a	Fail

Note: N/a indicates school was not yet open for operation.

Source: Rocketship Education, as reproduced in De La Rosa & Co. (2014)

company's chief programs officer conceding that the model produced students who, while passing standardized tests, "struggled with independence" (Noguchi 2013; Wilson and Liao 2014).

In 2012–2013, the company radically redesigned its teaching model—abandoning the Learning Lab and placing children in supersized classrooms of 100 kids with two teachers and technology integrated throughout the classroom. Before the end of the year, however, the experiment was deemed a failure, and most students were returned to the old model.

Understanding Rocketship’s business model

Given its repeated course corrections, rejection by multiple school boards, declining test scores, high teacher turnover, mandated federal remediation, and general turbulence in the system, one might think that Rocketship executives would take time to pause and reflect before promoting the company’s “model” to school districts around the country, including Milwaukee’s. Indeed, if this were simply a group of educators seeking to develop high-quality schools for poor communities, it is hard to imagine that the track record of the past few years would not be taken as a signal to rethink the mission. In Rocketship’s case, however, there appears to be no piece of evidence, nor any critique from educators or education officials, that sways the company from its commitment to rapid and extensive expansion.

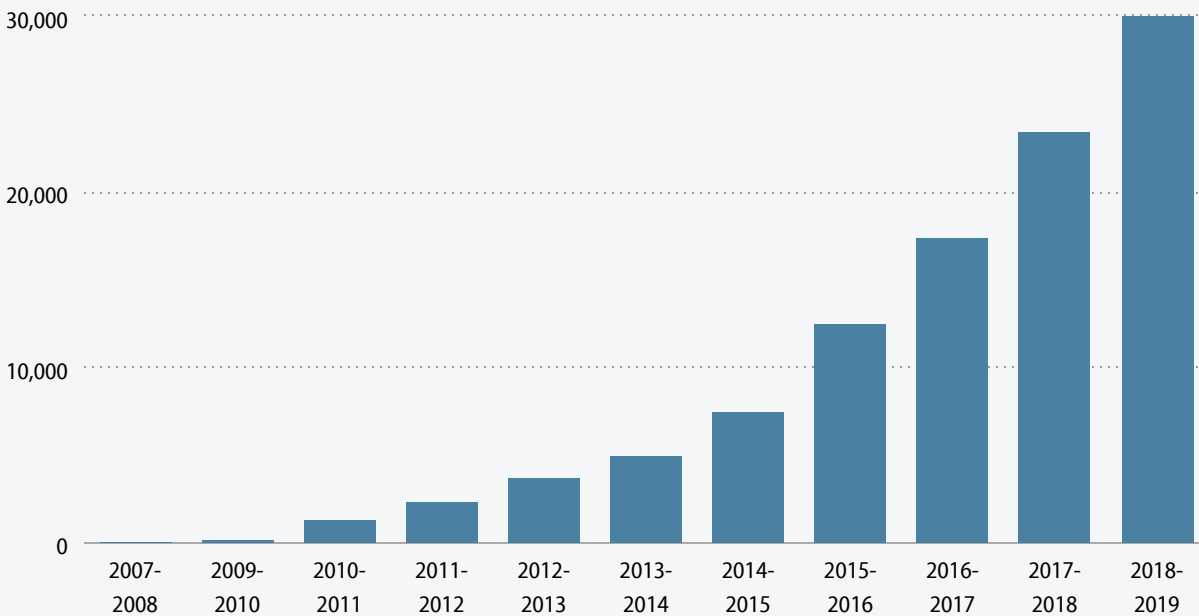
At different points, Rocketship has made a variety of growth projections, all of them ambitious—46 schools by 2017, 30,000 students by 2019, and ultimately, schools in 50 cities serving 1 million students (Merrow 2012; De La Rosa & Co. 2014, B-14). In its first seven years, the company expanded from one school to nine, and saw enrollment grow to just under 5,000 students. In the coming five years, the company aims to open eight-school chains in seven new cities, and expand its student base to 30,000, as shown in **Figure C** (De La Rosa & Co. 2014, B-14).

To understand what drives the company’s unshakeable pursuit of large-scale growth, it may be more important to understand Rocketship’s business model than its educational philosophy. Rocketship Education is a nonprofit company. However, its operational model blurs the distinction between for-profit and nonprofit businesses. At the heart of what makes Rocketship different from other schools is online instruction—often conducted using licensed software applications supplied by for-profit vendors (Rocketship Education 2011). The more students Rocketship teaches, and the more schools it opens, the bigger the customer base and the larger the licensing fees for these companies.

Very little is known about the educational efficacy of these applications; most of them have entered the classroom without ever being subject to experimental tests.⁶ But while there are scant scientific data on the impact of these educational software applications, more is known about some of the investors behind them.

From its beginning, Rocketship was championed both by technology executives and venture capital firms.⁷ For instance, Rocketship received significant funding from the New Schools Venture Fund, one of whose board members is John Doerr, a partner at the prominent venture capital firm Kleiner, Perkins, Caufield & Byers (Rich 2013). Rocketship has also received generous financial backing from Netflix CEO and venture capitalist Reed Hastings, who sits on Rocketship’s National Advisory Board (Bowman 2011; Garcia 2014). Together, Doerr and Hastings are two of the primary investors in a for-profit company called DreamBox Learning, having jointly invested over \$14 million in the firm (Cook 2013). In turn, Rocketship uses DreamBox software as one of the primary math applications in its Learning Lab (Rocketship Education 2014a). Thus, Hastings and Doerr help fund the nonprofit Rocketship chain, which contracts with a for-profit company they partially own; the more Rocketship expands, the greater DreamBox’s profits. Because Dreambox is a privately held company, the profits that Doerr and Hastings may be realizing are not publicly known. However, since the venture capital industry averaged a 15 percent return on investments in 2013 (Cambridge Associates 2013), it

Rocketship schools' total enrollment, 2007–2014 and projected to 2019



Note: Rocketship has established a goal of enrolling 30,000 students by the 2018–2019 school year. Numbers for the years 2014–2015 through 2017–2018 are the author’s interpolations between actual 2014 enrollment and the company’s 2018–2019 goal.

Source: Rocketship Education, as reproduced in De La Rosa & Co. (2014)

is unlikely that the two would have sunk money into a venture that was not expected to achieve at least this average rate of return.

When the U.S. Department of Education reviewed DreamBox in December 2013, researchers found 11 studies claiming to assess the program’s impact, but immediately rejected 10 of them as statistically meaningless (U.S. Department of Education 2013). While the 11th study used sound methods and reported “significant gains in overall mathematics scores” (Wang and Woodworth 2011), Department of Education staff found that the authors—whose work was commissioned by Rocketship—had arbitrarily excluded students they deemed “outliers.” When Department of Education staff reran the study with all students included, they concluded that DreamBox has “no discernible effects on mathematics achievement for elementary school students” (U.S. Department of Education 2013). Following publication of the Department of Education’s report, the Rocketship-commissioned authors produced additional data that convinced federal researchers to upgrade their assessment of DreamBox’s impacts to “potentially positive effects” based on “small evidence” (U.S. Department of Education 2014).

In a school where curriculum is based solely on pedagogical effectiveness, one might assume that if instructional materials were judged to have somewhere between “no discernible effects” and “potentially positive effects,” educators would start looking for a replacement. But Rocketship has continued to employ DreamBox as a standard part of its math program. Furthermore, both Rocketship and the DreamBox company itself continue to promote the software on the basis

of the very claims that federal researchers declared invalid.⁸ Nowhere on either Rocketship's nor DreamBox's website is there any reference to the Department of Education's findings (DreamBox Learning 2014). This is not the behavior of education innovators eager to identify best practices that can be shared with others; it is the behavior of self-interested parties eager to market their product.

Rocketship promotes itself as a dynamic learning organization, and indeed the company is continually experimenting. However, its innovation appears to be restricted within specific boundaries: It seems that it will not adopt education reforms that have no potential to make money for investors. For instance, a recent study found powerful results from a program that paid retirees to sit down in one-on-two intensive tutoring sessions with students in low-income communities. The program aimed both at imparting academic skills and at providing mentorship for young men in these communities (Rich 2014). Although the program was hailed by national researchers, it is hard to imagine that Rocketship might ever adopt this sort of intervention, as there is simply no way for technology startups or venture capital firms to profit from this model. Rocketship students are, indeed, participants in an experimental and developing pedagogy. But it appears the question this experiment aims to answer is not simply, "How can we do better by poor kids?" but rather, "How can we educate poor kids while generating a 15 percent rate of return for investors?"

An even more intimate case of mixed motives is that of Rocketship founder John Danner who, after eight years as CEO, stepped down in 2013 to found his own for-profit startup which aims to develop software that will allow for greater individuation in online learning and digital integration of homework with classroom instruction (Noguchi 2013). Danner describes his new company—dubbed Zeal—as "online learning 2.0," predicting that the next generation of online companies face "enormous market opportunities" (Danner 2013). Rocketship has been identified as the company's first partner (Aspen Institute n.d.; Haines, Voskuil, and Dilber 2014). As with DreamBox, then, Rocketship's relationship with Zeal features a nonprofit school serving as a testing ground and customer base for personally and financially connected for-profit companies.

Rocketship's use of both DreamBox and Zeal software would likely be prohibited as illegal conflicts of interest if they took place in a public school system. If a board member proposed that a school contract with a vendor with whom he or she had a personal financial relationship, this would be rejected out of hand.⁹ But Rocketship is not bound to uphold the same standard of ethics demanded of public officials, and it does not.¹⁰

These relationships help explain the venture capital industry's antipathy to elected school boards. Reed Hastings recently gained notoriety for declaring that education would be improved if school boards were not elected (Strauss 2014). To many, this may have appeared as ideological arrogance. But unrelated to ideology, there is a very concrete business reason for businesspeople such as Hastings to oppose elected school boards. With charter companies like Rocketship, Hastings can seal system-wide contracts—potentially covering tens or hundreds of schools across the country—with a single executive decision. Furthermore, the deal may be driven by financial relationships unrelated to the product, and there is no requirement that proof of educational quality take priority over what is good for the company's bottom line. By contrast, when elected school boards review proposed contracts for instructional software, their decisions are required to be based solely on the product's proven effectiveness, and they are prohibited from basing contract choices on any other financial relationships. Hastings explains that "selling to school districts . . . [is] a very inefficient market," because "school districts . . . are really reacting to voter forces more than to market forces . . ." (Crotty 2012). But avoiding relationships such as that between Rocketship and DreamBox—where instructional products may be selected to benefit

financially connected insiders even if they do not provide the best education for students—is one of the very reasons to maintain elected school boards. Thus, the calls to replace elected boards with appointees—or to shrink the power of elected boards to the point that they no longer exercise control over curriculum and technology contracts—reflects sound business logic, if not necessarily good education policy.

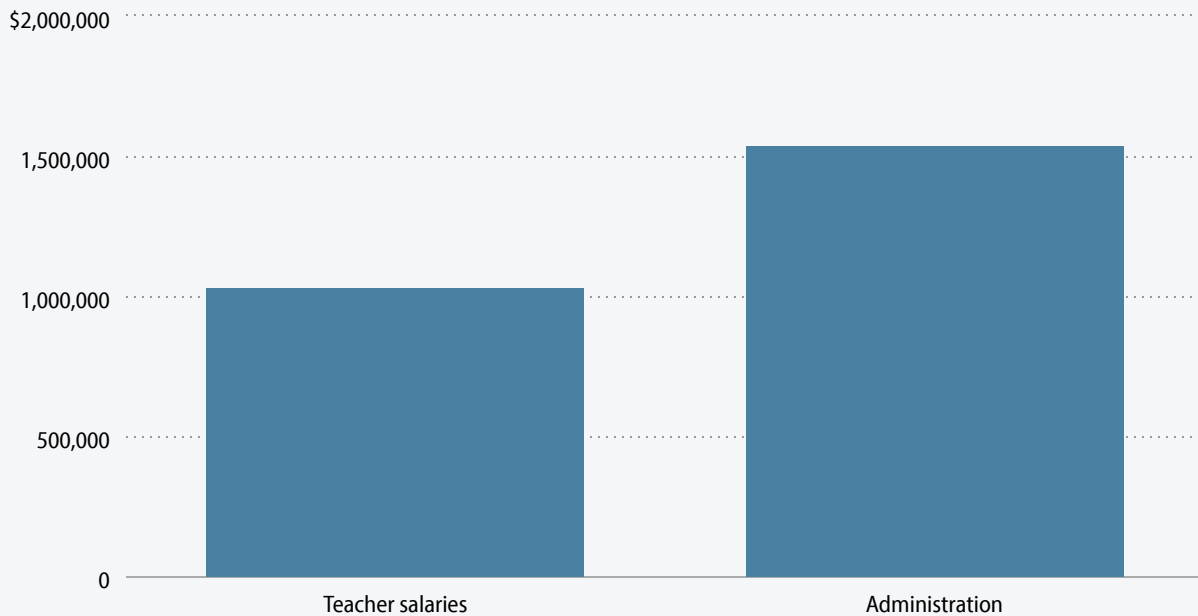
Ironically, these commercial relationships create a tremendous pedagogical rigidity in the Rocketship system. Where voucher and charter advocates may criticize the top-down nature of public school districts, Rocketship has, at best, substituted a corporate bureaucracy for a political one. If a teacher or even a principal in a Rocketship school believes a given software product is not appropriate for the school's students, they are nevertheless required to use the products assigned by the company's central office (Rocketship Milwaukee 2014b). In this way, Rocketship is a more centralized, command-and-control system than almost any public school. If individual schools were allowed to use their own judgment in evaluating the products best suited to their students, the company's financial backers might be faced with the same frustrations they voice about elected school boards.

Rocketship's centralized business model, along with its zeal for growth, may also explain why the company is so top-heavy compared with public school districts. In the Milwaukee school district, for instance, only 8 percent of all expenses are devoted to central administration (Milwaukee Public Schools 2013a, 12). In contrast, the Milwaukee Rocketship school spends nearly 29 percent of its total budget on central administrative functions outside the school (Rocketship Education 2011).¹¹ Indeed, by the time Rocketship Milwaukee expects to reach full enrollment, in 2015–2016, the company's own data indicate that the school will spend more on administration than on teacher salaries, as shown in **Figure D**.

A significant share of these administrative expenses facilitate the company's future expansion. To feed this quest for growth, Rocketship has diverted money that could otherwise be used to hire more-experienced teachers, shrink class size, create libraries, or otherwise improve students' education. Rocketship's school buildings are owned by a sister company—LaunchPad—which in turn charges Rocketship rent for the facilities. Rocketship's official business plans include the goal that “LaunchPad will charge relatively high facilities fees” and that “the profit margin will be used to finance new facilities” (Rocketship Education 2009). Thus, tax dollars intended to support the education of Milwaukee students will instead go, in part, to funding Rocketship's expansion in other parts of the country.

Equally troubling, the company's educational model itself appears to have been redesigned to meet financial rather than pedagogical objectives. While the company no longer aims to have students spend half their day in the Learning Lab, it continues to seek new ways to employ technology—for instance, in using online applications to teach grammar or carry out homework assignments (Haines, Voskuil, and Dilber 2014)—which in turn will reduce the need for trained teachers and human instruction. As described earlier, in 2012–2013, Rocketship instituted a new “flexible classroom” model that put 109 students in one oversized classroom with just two certified teachers (Herold 2014). Ultimately, only 47 percent of teachers rated this “effective,” and both students and parents preferred the old model (Rocketship Education 2014b). By the end of the year, the company only retained the “flexible classroom” in 4th and 5th grades, while reverting to the old model for kindergarten through 3rd grade. This lurching between models was stressful for both teachers and students. As one teacher described it:

Rocketship Milwaukee, projected budgeted expenses, 2015–2016



Note: Rocketship Milwaukee predicts a gradual increase in enrollment until full enrollment (600 students) is reached in 2015–2016. That year’s budget is thus used to make the projections depicted in this figure.

Source: Rocketship Education (2011)

A few months into the . . . school year, Rocketship announced to teachers the start of ‘redesign.’ I say announced, because it was not offered as a conversation, but as a mandate. . . . This model’s vision would have placed 100 students in a room with two credentialed teachers and one learning specialist (including in Kindergarten and first grade). Without research or proof that this was a good idea for our students, redesign was launched at several Rocketship campuses. . . . Unfortunately, the experiment . . . proved to be rash. . . . My biggest concern . . . is that even though Rocketship is experimenting with its model and unsure of its future direction, it still seeks to rapidly expand . . . across America. (Anonymous 2013)

The most surprising part of this story, however, is the reasoning behind this year of programmatic upheaval. According to Rocketship board documents, the company had determined that it was generating insufficient income to fuel its growth plans and developed the “flex” model in response. Adopting a student-to-teacher ratio of 50-to-1 would help the company generate an additional \$230,000 of net income from each school (Rocketship Education 2013). Instead of developing an effective education model and then determining how to fund it, Rocketship started with the goal of squeezing enough money out of school operations to fund its growth plan, and then redesigned education around those revenue goals.

After retreating from the “flexible” model, Rocketship’s profitability is more modest. But the company remains committed to aggressive growth, and the board has insisted that new strategies must be identified to increase efficiencies,

setting a goal that “if each school could generate \$200,000 more net income per year, there would be \$9 million of extra cash generated over the next five years to fund growth” (Rocketship Education 2013, 23). Among the strategies raised as possibilities for meeting this goal were laying off assistant principals, expanding online curricula, and staff training aimed at needing “fewer adults in each classroom” (Rocketship Education 2013, 22–23). To the extent that this push is successful, funds designated to serve Milwaukee students will instead be diverted to fund Rocketship’s expansion plans.

Good schools: What do we know about what works, and how does Rocketship compare?

Decades of rigorous research have established that families’ socioeconomic background is the preeminent factor affecting how children perform in school. Among the factors education policymakers can control, students benefit from small class sizes; experienced teachers; diverse opportunities for learning; a broad curriculum including music, art, and play-time for young children; and professionally staffed libraries. On all of these dimensions, Rocketship falls short.

The basics: Poverty and class size

Decades of studies have affirmed that the single most important factor affecting educational achievement are inequalities of wealth and poverty. Since the inception of testing under No Child Left Behind, students from poor or economically disadvantaged families have *never* scored higher than their better-off peers—not at any age, nor in any state (Tienken and Zhao 2013, 112). The impact of poverty similarly outweighs any difference between charter and public schools, for students of any ethnicity, income level, or disability (CREDO 2013, 75). This is partially because students from poor families start school with less exposure to reading, writing, and vocabulary.¹² But poverty’s impact on education is often much simpler and cruder than underexposure to vocabulary. As one expert notes:

First, health matters. Children who can’t see well can’t read as well as those who can, and lower-class children, on average, have poorer vision than middle-class children. Lower-income children have a higher incidence of lead poisoning, poorer nutrition, and higher rates of iron-deficiency anemia, which result in impaired cognitive ability. They have greater exposure to environmental toxins, air pollution, and smoke, and therefore greater incidence of asthma. Lower-class children have less adequate pediatric care, resulting in more frequent absences from school. . . . The lack of affordable housing for low-income families is another social class characteristic that has a demonstrable effect on average achievement. Children whose families have difficulty finding adequate housing move frequently, and student mobility is an important cause of low achievement. Teachers cannot work as effectively with children who are in their classrooms for a short time as with those who stay longer. (Rothstein 2013, 62)

Thus, the single most important steps Wisconsin policymakers could take to improve the education of Milwaukee students would be to make it easier for these children’s parents to obtain sufficiently well-paying jobs or to ensure a sufficiently robust safety net to enable their families to live decently. Unfortunately, as will be discussed later, many of the same corporate interests advancing education reform also support economic policies that make it more difficult for families to pull themselves out of poverty.

Of the things under the control of school officials, one of the most fundamental factors affecting education quality is class size. This is a fact that parents know intuitively, and it has been borne out by decades of research. The largest-scale

study of class-size impacts was Tennessee’s Student/Teacher Achievement Ratio (STAR) program, which concluded that students in smaller classes performed significantly better in both reading and math.¹³ Furthermore, although the experiment ended with third grade, the benefits of small classes continued at least through eighth grade (Molnar 1998).¹⁴ In the 20 years following STAR, a host of studies examined this question, reaching conclusions similar to those of the STAR experiment: Holding class size to 18 or fewer students in grades K–3 produces significant benefits in both reading and math, with the greatest impacts on nonwhite and low-income students (Center for Public Education n.d.).¹⁵

Smaller classes make such a profound difference because they change the fundamental dynamic between teachers and students in ways that are particularly important for children from poor and working-class families. As University of Colorado Research Professor Alex Molnar explains, in small classes:

- Children receive more individualized instruction.
- Teachers can focus more on direct instruction and less on classroom management.
- Students become more actively engaged in learning than peers in large classes.
- Teachers identify learning disabilities sooner, but fewer children end up going into special education classes because teachers can support them within small classes.
- Teachers are more able to give children from low-income families and communities a critical, supportive adult influence.
- Teachers are better able to engage family members and to work with parents to further a child’s education.
- Teachers of small classes less often burn out. (Molnar 1998)

Based on the recommendations of the Urban Initiative task force appointed by Wisconsin’s then–Superintendent of Public Instruction, John Benson, and organized by Molnar (then a professor at the University of Wisconsin–Milwaukee), the Wisconsin legislature in 1995 established the Student Achievement Guarantee in Education (SAGE) program, which remains in effect today (Molnar and Zmrazek 1994). SAGE targets schools where at least 30 percent of students come from economically disadvantaged families. For these schools, SAGE provides approximately \$2,000 per student to enable schools to limit classes to 18 students for kindergarten through third grades.¹⁶ An evaluation tracking students over the first five years of the SAGE program found that students in smaller classes outperformed otherwise comparable students in reading, language arts, and math, and that improvements were particularly dramatic for African American students (Smith, Molnar, and Zahorik 2003, 72–74).

In addition to the measurable impact on student performance, teacher surveys showed that smaller class sizes produced a fundamental shift in how teachers conducted their classes, how well they got to know their students, and how well they could encourage children’s personal as well as intellectual development. A three-year study of teacher practice concluded that “much less time is spent in dealing with misbehavior in a small class. . . . Teachers [also] develop a greater knowledge and understanding of each child. . . . Because there is more time to interact with each child, teachers come to know the total child—his or her interests, habits, perspectives, strengths, weaknesses, and other characteristics. . .” (Zahorik, Molnar, and Smith 2003).

Thus, for reasons that may or may not show up in test scores, education scholars have long held that the single most effective means of improving education is to significantly decrease class sizes. At Rocketship, there is one licensed teacher

for every 33 students (Rocketship Education 2011). Because one-quarter of the students are in the computer lab at any given time (where there are no licensed teachers), the remaining classrooms average approximately 25 students per class. Thus, while the company realizes significant financial gains from its use of technology, it does not use these funds to meet the SAGE-recommended standards, even for kindergarten through third graders. In Rocketship schools where fourth- and fifth-grade classrooms use the “flex” model, there are approximately 50 students per teacher. Furthermore, because even the younger children rotate throughout the day between two teachers and the computer lab, and because there is such high teacher turnover, it is harder to develop the deep personal student–teacher relationships that are traditionally one of the benefits of small classes.

Experienced teachers

Individual teachers may be good or bad at any stage in their career. However, other things being equal, teachers—like most professionals—get better with practice. On average, teachers are at their peak performance when they have 20 years’ experience on the job. One study that examined the impact of teacher experience specifically in traditionally low-performing schools found that for 20 years, every additional year of teachers’ experience translates into statistically significant improvements in students’ educational achievement. After 20 years on the job, the impact of additional teacher experience on students becomes, on average, negative. However, this decline is sufficiently modest and gradual that a teacher with 30 years on the job still performs better than one with only 10 years’ experience (Huang 2009). Indeed, one of the longstanding problems of low-performing schools is precisely that they fail to retain experienced teachers.¹⁷

As explained earlier, inexperienced teachers and high turnover rates are key ways Rocketship keeps costs low. While these policies minimize overhead, they come at the expense of children’s education.

A broad curriculum and diverse opportunities for learning

Test-based curricula tend to differentiate students only along one dimension: who scores higher than whom. But children differ not only in how much they learn, but in *how* they learn. When kindergartners and first-graders are first grappling with basic math concepts, some do well by practicing addition and subtraction problems, others by making and crossing off marks on paper, others by engaging in stories about quantities of things gained or lost, others by physically manipulating sticks or blocks. Part of the task of any teacher is to determine which mode of learning is best suited to which children.¹⁸

The 2012 National Teacher of the Year explains how central diversity of learning strategies is to the work of teaching:

I think what the best teachers are, are seekers. We are given a family’s . . . most precious resource, their child. And our job is to send them out better than when they walk through the door. And better doesn’t necessarily mean that they can ace a standardized test. Better means that I have seen deep within each child what his or her unique potential is. And so great teachers give assignments that are seeking to find that resource within each child. So, we will give activities that require . . . debating skills one day. And the next day, it will be a research skill, and the next day it will be artistic or musical because we’re looking for what each child’s native talent and capacity is, so that we can provide the education that that child needs and help him or her find her best path to success. (Mieliwocki 2012)

Indeed, part of the inspiration for many digital instruction applications is the hope that children will learn through a medium modeled on video games what they wouldn't learn by sitting in a classroom with a teacher. And this may well be true for some students. The problem with online learning, however, is that it provides only one mode of learning and requires that all children use it. Six-year-olds who might learn math best by manipulating blocks have no choice but to sit, along with the rest of their class, and spend their hours in front of a computer screen. In this sense, online instruction schools provide the opposite of the "individualization" that Rocketship trumpets as a hallmark of its innovation. Online programs allow for individualization only in the sense that one child can be ahead or behind another on the same digital trajectory. But in recognizing the different ways that children make sense of, assimilate, explore, develop, and express knowledge, digital programs allow no room for individuation.

What's missing from the tests

The promoters of online learning assert that traditional schools lack for "objective" measures of education. Yet as one English teacher notes, "Every literate person assesses written language every day. We find arguments compelling, lyrics melancholy, jokes humorous. We can explain what makes a particular sentence resonate. . . . Although it is difficult to describe all the qualities that make a truly excellent piece of writing effective, it is not difficult to point to the flaws in a substandard piece of student writing" (Needell 2014). The grades assigned by teachers reflect professional judgment, not simply subjective preference. Indeed, research shows that the grades students receive in high school are better predictors of college success than their scores on SAT or ACT exams (Maitre 2014; Hiss and Franks 2014). Furthermore, teachers' evaluations reflect a much more comprehensive understanding of students than that captured in standardized tests. The 2011 National Teacher of the Year, for example, explains that her high school chemistry students "take an AP test at the end of the course. But . . . that test is just a three-hour snapshot. There are so many other things they are learning during the year – how to problem solve, how to work in a lab – that aren't measured on the test. We also help students develop skills they need for life . . . things like a student's ability to stick with a problem until it is solved. How do you test resilience?" (Shearer 2011).

In all these ways, evaluation by experienced and talented teachers provides an assessment that is not only more accurate but more completely captures the process students are supposed to undergo in the classroom, and what it means to be educated. The only rationale for seeking to convert human activity to digitally measurable metrics, it seems, is to spend less on kids and earn more for investors.

Ironically, many senior executives at the nation's leading high-tech companies choose to send their own children to a Waldorf school, where the primary technologies are blackboards, chalk, and encyclopedias on bookshelves. One senior Google executive insists that small classes with in-person instruction are best for his daughter. "The idea that an app on an iPad can better teach my kids to read or do arithmetic, that's ridiculous," he explains (Richtel 2011).

Indeed, while charter boosters often decry public schools as anachronisms of the industrial age, the principal at the school favored by so many Silicon Valley titans turns this assumption on its head: "Teaching to the test is . . . left over from the industrial age, an age of mass production," she explains. "Technology is a tool. . . . Education is done human to human, not through a machine" (Rynas 2014).

A broad curriculum: Music, art, and playtime

One of the critical attributes missing from test-focused education like that practiced by Rocketship is time devoted to artistic and musical pursuits. Parents commonly believe that art and music can be a valuable part of education, whether or not their impact is measurable in test scores. In fact, statistical research suggests that students enrolled in regular arts education perform better than their peers on standardized tests (Catterall 2002).¹⁹ Furthermore, while all students benefit from such education, the benefit is greatest for low-income students, who are less likely to have access to the arts outside of school (Deasy 2002).

Beyond test scores, art and music provide avenues for personal development that privileged parents typically seek for their own children, but that are often denied to students from poor and working-class families. As former Arizona state superintendent Tom Horne notes, “When you think about the purposes of education, there are three. We’re preparing kids for jobs. We’re preparing them to be citizens. And we’re teaching them to be human beings who can enjoy the deeper forms of beauty. The third is as important as the other two” (Smith 2009).

Another critical hole in the Rocketship curriculum is simple playtime. In the Milwaukee Rocketship school, while kids have recess, there is no in-class playtime—not even in kindergarten. For young children, play is an essential vehicle for both intellectual and emotional development. As the Alliance for Childhood reports, extensive research finds that “children who engage in complex forms of socio-dramatic play have greater language skills than nonplayers, better social skills, more empathy, more imagination, and more of the subtle capacity to know what others mean. They are less aggressive and show more self-control and higher levels of thinking” (Miller and Almon 2009, 7; see also Isenberg and Jalongo 2005, 46–51). Social and artistic playtime, outside of any academically directed activity, can also be critical in enabling young children to identify and manage their emotions, to understand and make sense of interpersonal dynamics, and—particularly for children who have witnessed violence or other forms of trauma—to process and work through their experiences (Wethington et al. 2008; Lawrence, De Silva, and Henley 2010; Hamblen and Barnett 2012).

Libraries and librarians

Finally, decades of research have shown that libraries and librarians are central to students’ educational achievement and intellectual growth. Rocketship schools have no libraries or certified librarians, nor do they accord them much value. “We don’t have librarians,” one executive recently explained, “but I don’t know that we have lost anything by that” (Haines, Voskuil, and Dilber 2014). Yet over the past 25 years, more than 30 studies have found that students’ education improves when schools have a full-time certified librarian (Kachel 2013).²⁰ Furthermore, the benefit of librarians is greatest for black students, Latino students, those from poor families, and students with disabilities (Kachel and Lance 2013). A study looking specifically at Wisconsin found that performance on the Wisconsin Knowledge and Concepts Exam was significantly higher at schools with certified librarians than at those without, and significantly higher at schools with a full-time certified librarian than at those with only part-time staff (Smith 2006).

Beyond their impact on test scores, libraries and librarians also provide students a broader type of education. Librarians help students find books they have never heard of but might like, and thus help make reading a pleasure rather than a chore. Librarians also direct students to sources that provide alternative views on what they have learned in class, thus providing the building blocks for critical analysis. In Wisconsin,

teachers and students report that school libraries . . . help students acquire unique skills that they do not learn in the classroom. [They] help students become information searchers, information reviewers and synthesizers. . . . [The] library . . . gives students the opportunity to evaluate the information . . . and assess the validity of what they have learned in class . . . by exposing the student to different sources of information beyond reliance on a single source: the textbook or the teacher. (Smith 2006)

By eliminating librarians from their model, “blended learning,” test-focused charter schools like Rocketship deny students an essential opportunity to expand their imaginations, to discover reading-as-pleasure, and to develop a capacity to critically examine and assess information presented to them.

The best schools in the world—and in Wisconsin

The examples set by the best schools globally and in Wisconsin itself suggest that the narrowly focused, test-oriented charter school approach exemplified by Rocketship is precisely the wrong template. Additionally, the educational models of schools that privileged Americans choose for their children reinforce that broad curricula and small class sizes are key to helping children fulfill their potential.

The Finland model

Finland has long been widely regarded as having the best education system in the world, having regularly ranked at or near the top of international comparisons over the past decade (Taylor 2012). Since international comparison tests began in 2000, Finland has consistently been one of the top performers. In both 2006 and 2009, Finland ranked first in the world in international science tests.²¹ Remarkably, other than a final exam at the end of high school, no standardized tests are administered in Finland, at any age or in any subject. Nor are there any state-mandated standards for specific outcomes students must achieve or specific curricula teachers must follow (Sahlberg 2010, 67, 88).

Indeed, Finland’s education system is almost diametrically opposite of that being promoted by corporate lobbies in the United States, yet it has produced better-educated students. What is the key to Finland’s remarkable achievement?

Finland provides all students with a broad curriculum that includes “arts, sports, music, and whole-person development” (Sahlberg 2010, 56). Needless to say, in none of these subjects have digital applications been substituted for personal instruction. In addition, the school system is built on high standards of teacher professionalism that guarantee teachers “the full range of professional autonomy to practice what they have been educated to do: to plan, teach, diagnose, execute, and evaluate” (Sahlberg 2010, 76).

In contrast, in 2013 Wisconsin legislators lowered teacher certification standards specifically for charter schools (State of Wisconsin 2013a). Modeled on ALEC legislation, this bill grants licenses to people who may have studied literature or biology, but have not spent a day mastering the pedagogy of how to teach these subjects.²² At Rocketship, executives dismiss the value of teacher education, preferring to rely on financial incentives and on-the-job training to push teachers to achieve the company’s goal of raising students’ math and reading scores by 1.5 grade levels for every year they attend school. “It’s not important to have a credential in a particular subject in order to be a) an expert in a field and b) a great teacher,” explains the company’s senior vice president. “The ultimate proof is if you can get one and one-half years of growth – if you can get that consistently, then you’re a kick ass teacher, and I don’t care where you went to college or if you went to college” (Haines, Voskuil, and Dilber 2014).

In contrast, all Finnish teachers must be certified with a university degree in education; for middle and high school, teachers generally cannot be employed without a master's degree (Sahlberg 2010, 78). As one of the country's top education officials explains, these students are not simply studying math or science itself, but are getting degrees in the pedagogy of *how to teach* math or science.²³ Because the profession is treated with such respect, all of Finland's schoolteachers come from the top third of their college graduating classes; the comparable figure in the United States is only 23 percent (Heitin 2010).

Along several dimensions, then, Finnish schools are almost the opposite of the test-centered, increasingly digital model being promoted by corporate lobbyists.

Wisconsin's best elementary schools

Very few American schools have eliminated standardized tests. But in other ways, many of the country's, and Wisconsin's, best schools share certain features with Finland's: a broad curriculum, appropriate support services, and classes taught in person by a staff of certified, veteran teachers who are empowered to develop creative curriculum. **Table 3** shows Wisconsin's top 10 elementary schools (School Digger 2014). Although these rankings are based on math and reading test scores, these schools embody a much broader definition of what it means to be educated. Indeed, these schools are strikingly different from the Rocketship online-instruction model being promoted for Milwaukee children. Because none of their classes are online, and because they do not rely on TFA recruits, there are more than twice as many licensed teachers per student at these schools as at Rocketship. Rocketship provides art activities only as "embedded" in language arts lessons, but has no dedicated art classes nor any certified art teachers; the school also provides no music education of any kind (Rocketship Milwaukee Public School 2014b). By contrast, all of the state's top 10 elementary schools offer both music and art education, all provide libraries, all but one provide guidance counselors, and a majority offer foreign language instruction. Finally, the teaching staff is educated and experienced; it is not unusual for teachers in these schools to have graduate degrees in education.

Where privileged parents send their children to school

While there are decades of scholarly research pointing to the importance of small classes and broad curricula, there is a much simpler way to judge the value of these things: by observing which schools the country's elite select for their own children. While these schools include technology, it is not used to substitute for teachers. On the contrary, *Forbes* magazine's review of the country's most elite school stresses that it is "tiny classes" and "individualized attention" that "help students earn their way into the best colleges" (Laneri 2010).

Even those insisting on a stripped-down version of education as public policy choose something different for their own children. Thus, Chicago Mayor Rahm Emanuel—who famously fought with teachers over class size and test-based evaluations—sends his children to the University of Chicago Lab School (Spielman 2011). The school has seven full-time art teachers and three libraries, and the school's director, David Magill, writes that "world languages, libraries and the arts are not frills. They are an essential piece of a well-rounded education." Further, Magill explains that his school does not evaluate teachers based on standardized tests: "[M]easuring outcomes through standardized testing and referring to those results as the evidence of learning and the bottom line is, in my opinion, misguided" (Elk 2012).²⁴

TABLE 3

Characteristics of Wisconsin's best elementary schools, as compared with Rocketship Education schools

School	District	Students per licensed instructor	Average teacher experience, years	Art classes	Music classes	Foreign languages	Library	Guidance counselor	Online classes
Odyssey	Appleton	14.2	10	Yes	Yes	Yes	Yes	No	No
Wauwatosa STEM	Wauwatosa	13.3	N/A	Yes	Yes	Yes	Yes	Yes	No
Lincoln Elementary	Wauwatosa	13.3	15	Yes	Yes	Yes	Yes	Yes	No
Lannon Elementary	Hamilton	12.1	10	Yes	Yes	No	Yes	Yes	No
Magee Elementary	Kettle Moraine	15.1	15–20	Yes	Yes	No	Yes	Yes	No
Lake Country School	Lake Country	12.8	N/A	Yes	Yes	Yes	Yes	Yes	No
Shorewood Hills	Madison	14.1	10+	Yes	Yes	Yes	Yes	Yes	No
Ace Charter School	Neenah Joint SD	15.2	10	Yes	Yes	No	Yes	Yes	No
Marcy Elementary	Hamilton	14.5	N/A	Yes	Yes	No	Yes	Yes	No
Washington Elementary	Wauwatosa	13.3	N/A	Yes	Yes	Yes	Yes	Yes	No
Rocketship Education		33.3	Less than 5	No	No	No	No	No	Yes

Note: Students per licensed instructor are 2010–2011 district figures, with Rocketship serving as its own district. Schools that report having a psychologist and social worker on staff are considered to have a guidance counselor.

Source: State of Wisconsin Department of Public Instruction (2013); Phillips (2014); Rocketship Milwaukee Public School (2014a)

Indeed, although the Metropolitan Milwaukee Association of Commerce (MMAC) has been a vociferous booster of the Rocketship model of education, the hometown schools of MMAC's leaders seem to be closer to Finland's model than to Rocketship's. MMAC Chairman Ted Kellner lives in Thiensville, where the local elementary school is Oriole Lane; MMAC President Tim Sheehy lives in Fox Point, where the local school is Stormonth Elementary. Both schools are ranked among the state's highest performers. Both have approximately 15 students for every licensed teacher, or half the Rocketship ratio. Both offer a broad curriculum including music and art. Both have libraries and both have computer labs, but neither uses them to replace teachers with online instruction. At Stormonth Elementary in Mr. Sheehy's hometown—but not at Rocketship—students even have the option of studying Spanish. Finally, both schools boast veteran teaching staffs, and identify these as part of the backbone of their success. An Oriole Lane administrator, for instance, boasts of having a “very stable teaching staff,” with 90 percent of teachers possessing master's degrees. (Smith 2014; Oriole Lane Elementary n.d.; Stormonth Elementary n.d.)

In October 2013, MMAC testified before the Wisconsin Senate in favor of a bill that would make it easier for companies like Rocketship to add more schools in the city. MMAC Government Affairs Director Steve Baas insisted that the Senate must “[give] an opportunity to the best of the best, the top guns, to . . . [create] opportunities for top-quality

education” (Baas 2013a). Yet while Rocketship’s model may sometimes be touted as the gold standard in public debates, it appears that MMAC leaders implicitly recognize the value of a broader education.

Privatizing education: Assessing Wisconsin’s proposed “school accountability” legislation

Now that this report has evaluated the “blended learning” model of education exemplified by Rocketship and championed by MMAC and corporate-funded think tanks, it turns to an analysis of how the “school accountability” legislation debated during the most recent legislative session—which is largely modeled on proposals from these same parties—would likely affect Milwaukee schools.

In Wisconsin as in the nation generally, the loudest voices demanding radical education reform did not come from either students or their parents, but from corporate lobbies. At least as far back as 2011, MMAC has called for creating a new kind of school district within the city—outside the control of the elected board or superintendent—that would recruit privately run charter schools to take over education of low-performing students (Richards 2011).

In August 2013, MMAC hosted a private conference with select state and local policymakers to promote such a proposal (Richards 2013b).²⁵ The MMAC proposal was largely based on a report issued several months earlier by the Wisconsin Policy Research Institute (WPRI), a member of the corporate-funded State Policy Network affiliated with ALEC, whose board of directors includes MMAC President Tim Sheehy (State Policy Network n.d.; Center for Media and Democracy 2013). The institute issued a full-blown blueprint for overhauling the city’s school system, entitled *Pathway to Success for Milwaukee Schools* (Kozak 2013).

WPRI’s track record on education policy prescriptions does not necessarily inspire confidence. The organization once vigorously promoted school vouchers, issuing a publication in 1989 that touted vouchers as “the key to better schools,” which would lead to “higher student achievement” (Chubb and Moe 1989). Twenty-five years later, the organization admits that its prescription was misguided; while vouchers transformed the school system, they failed to improve education quality. A team of WPRI authors concedes that “Milwaukee is [now] filled with schools of all stripes. . . . Yet all of this activity has yet to deliver on its promise. . . . [T]he statistics tell a grim story” (Hess and Sattin-Bajaj 2013, 2–3).

Today, WPRI calls for the elected school board and superintendent to relinquish control over education policy, and instead “humbly acknowledge that a marketplace of school operators will, over the long run, out-perform even the best direct-run system” (Kingsland 2013, 44–45). WPRI’s prescription here echoes the vision espoused by Rocketship backer Reed Hastings, who suggested that the role of school districts should be limited to “bringing to town more and more charter school networks, sort of like a Chamber of Commerce would to develop business” (Crotty 2012).

The institute specifically calls for an increased focus on online instruction—whether in “blended learning” schools like Rocketship (which it dubs a “cutting edge hybrid school”), entirely virtual schools, or through vendors paid a prorated share of student funding for individual online courses (Kozak 2013, 17; Horn and Evans 2013, 21, 25).

Perhaps unsurprisingly, WPRI’s own survey found that the public does not support its proposals:

The public . . . thinks the school district, not school principals, should make teacher hiring decisions. Less than half of the public supports the idea of students taking on-line classes. Moreover, the public is supportive of two institutions that education reformers have long had in their sights: the public school board and the teachers' union. Finally, the only thing the Milwaukee public can coalesce around is spending more money. In Milwaukee, the concept that more spending will fix what ails schools runs deep. (Kozak 2013, iv)

Perhaps after 25 years of experience with vouchers and charter schools, one might conclude that Milwaukee residents actually know what they are talking about. Instead, what WPRI concludes is that “the public does not understand” what is needed, and pushes on with the corporate agenda for school reform (Kozak 2013, iv).

Over the course of the 2013–2014 legislative session, lawmakers introduced a number of bills that took steps in the direction of the goals laid out by WPRI and supported by MMAC and other corporate lobbies.²⁶ Although none of these bills became law, they likely point to the agenda for next year's legislative debates.

The most comprehensive plan for how Wisconsin might move toward the vision outlined by WPRI is embodied in a draft of Senate Bill 286 circulated by Education Committee Chair Luther Olsen in January 2014 (State of Wisconsin 2014a). Ultimately, this bill stalled—and was never formally introduced—due to internal dissension among GOP legislators and opposition from private school advocates, who objected to the proposed reporting requirements for voucher schools (Stein 2013). However, Senate Majority Leader Scott Fitzgerald has specifically suggested that the core elements of this draft may be revisited in the next legislative session (Wheeler News Service 2014). For these reasons, it is worth examining exactly how this proposal would affect Milwaukee's schools. The bill essentially called for five reforms:

- 1) All schools in the state—public, charter, or voucher—would be graded on a scale of A–F based on four criteria: student test scores in math and reading, annual improvement in those test scores, attendance and graduation rates, and the extent to which the gap in test scores is narrowed between traditionally advantaged and disadvantaged students. Each of these four measures would account for 25 percent of a school's grade.
- 2) Each year, the lowest-performing 5 percent of schools in the state must be given a grade of F regardless of their objective performance.
- 3) Public schools graded F for three years in a row would be forced to close, and replaced with “high quality” charters, defined as schools whose student test scores for the past two years have been above the average of their surrounding district. Such charter schools must be privately run and cannot be set up by school districts or employ teachers who are district employees.
- 4) Grading would begin in 2015–2016, with the first sanctions possible in the 2018–2019 school year, except in Milwaukee. Milwaukee schools that ranked in the bottom 5 percent of the state's schools in 2013–2014 and 2014–2015 would be considered to start with two F's on their record, with just one more leading to their closure.
- 5) Charter schools would have an eight-year grace period, and could not be closed until their ninth year of operation, no matter how many F's they accrue.²⁷

Chairman Olsen insisted that one of the key innovations in his bill was to address a major flaw in current school ranking systems: their failure to account for the relative wealth or poverty of different school populations. “You can't get good

grades because you're lucky to have a whole bunch of high-income students," Olsen declared. "That's not fair" (DeFour and Beck 2014). In response, Senate Bill 286 required that test scores and other measures of school performance be adjusted to account for a school's racial and ethnic makeup, along with the percentage of students who are low-income, disabled, or English-language learners. Nevertheless, the bill is stacked in such a manner that guarantees the widespread closure of Milwaukee public schools and the expansion of privately run charters.

First, while the new grading system is intended to avoid declaring schools "failing" simply because they serve poor children, many Milwaukee schools would start off with two F's based on the old ranking system, which Olsen himself deemed unfair.²⁸ Thus, Milwaukee schools are not only put on a faster timetable to closure than any other district in the state, they are also judged by a different standard.

Second, the requirement to flunk 5 percent of schools every year would almost double the number of F's handed out. In 2012–2013, only 58 Wisconsin schools were graded as failing. A mandatory 5 percent failure rate would increase this number to approximately 100 schools per year (Evers 2014). It is likely that many of these schools awarded F's despite not actually failing would be located in Milwaukee.

Third, the definition of "high quality" charters is written so as to promote the expansion of even low-performance charter schools, while blocking the replication of higher-performing public schools. Unlike the school performance measures, this definition is not based on any accounting of race, disability, or poverty; thus, a charter school that selects a privileged population of students may be declared "high quality" simply on that basis. Moreover, the fact that a school scored above the Milwaukee district average in no way proves that it is uniquely equipped to address the needs of low-income students. In 2012–2013, a majority of the independent charter schools in Milwaukee failed to meet state expectations—the equivalent of receiving a D or F (Richards 2013c). Because the Milwaukee school district as a whole posted even lower scores (partly because the share of special education students in district schools is more than double that of private charters), many of these schools nevertheless outperformed the district average. This hardly makes them models for quality education, but under Sen. Olsen's bill they would be declared "high quality" schools and encouraged to expand operations.

This points to a particularly counterintuitive aspect of the bill. There are currently 30 traditional public schools *within* Milwaukee that meet Sen. Olsen's definition of "high quality" (State of Wisconsin Department of Public Instruction 2014b). Why isn't the remedy for low-performing public schools to require that they learn from, be guided by, or even be taken over by "high quality" public schools within the district? Indeed, eight of the district's public schools produced academic growth that exceeded the average of all the privately run charter schools for each of the past two years (State of Wisconsin Department of Public Instruction 2014b).²⁹ These schools, in particular, would seem models that the legislature might seek to emulate. For instance, the Academia de Lenguaje y Bellas Artes (ALBA) school is an enormously successful "instrumentality" charter school—a school chartered by the district, whose teachers are district employees. In 2013, *People* magazine named three of the teachers who co-founded the school as recipients of its "Teacher of the Year" award (Rubenstein 2013). In 2012–2013, ALBA's state score for student academic growth was higher than that of every one of the non-district charter schools. Yet under Sen. Olsen's bill, this school would be prohibited from opening another campus, while a privately run school that scored far worse would be promoted as a superior solution for the city's students.

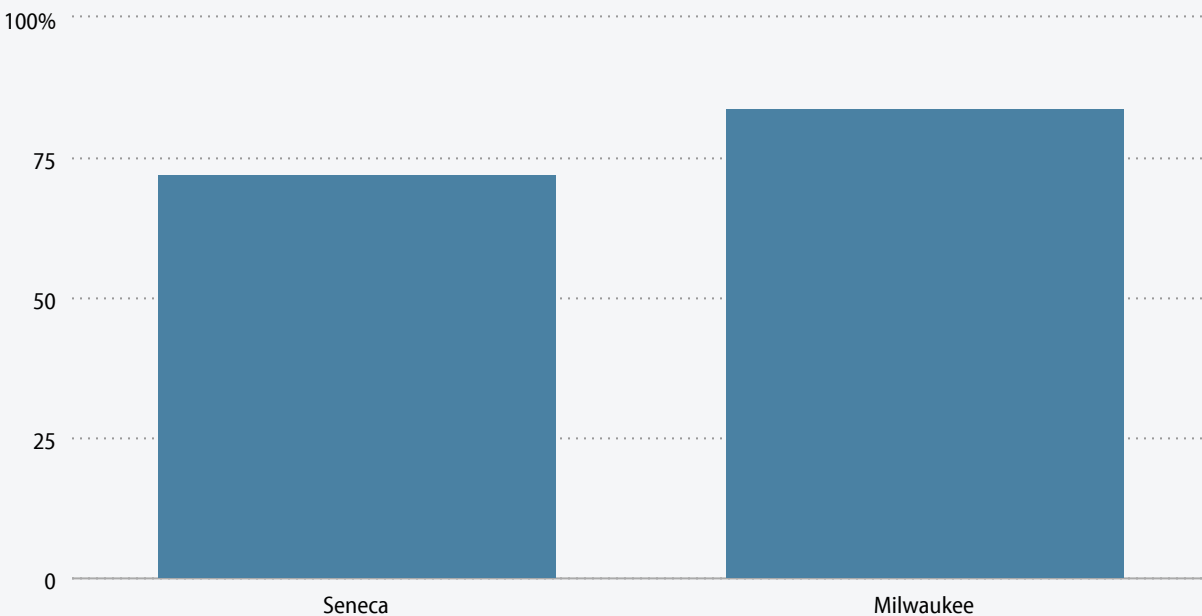
Fourth, the bill would provide privately run charter schools a unique eight-year grace period; even if they get F's every year in a row, they cannot possibly be sanctioned until their ninth year of operation. By this time, their public school counterpart in Milwaukee would have been closed for seven years.

Fifth, the bill fails to account for important differences in school population. For instance, there are an estimated 4,000 to 6,000 homeless children in Milwaukee, and when they are able to attend school they are virtually all enrolled in public schools. These students face a range of challenges that makes them likely to post lower scores and show less improvement over the course of an academic year. These challenges also make it harder and more expensive to do right by these children. Similarly, one of the impacts of poverty is that there is a very substantial number of Milwaukee students who move frequently and therefore switch schools from year to year, or even in the middle of the year. Among public schools in Milwaukee, nearly 30 percent of students change schools from one year to the next, and 15 percent of students change schools within any given school year (Milwaukee Public Schools 2011, 9). This degree of turnover in the student body creates problems for the students who switch schools and forces teachers to divert attention to integrating new students during the course of the school year. In middle and high schools, the Milwaukee school district also accommodates a significant number of students who are returning to school from some part of the criminal justice system. These students may enter a school at any point in the year, in need of extra support and attention. The public school system is required to educate every child, whereas private voucher or charter schools have substantial latitude in both admission and expulsion practices. Thus, all these students are most likely to be found in public schools. To not take these differences into account when grading school performance is to skew measurements against schools that carry the most difficult responsibilities.

Finally, even where Senate Bill 286 states its intention to create a fair comparison between schools by accounting for differences in poverty and special education needs, it uses measures that fail to capture the real differences between schools. This is most pronounced in the bill's method for taking into account inequalities of wealth and poverty—which Sen. Olsen agrees is critical—which relies simply on the percentage of students in each school who qualify for free or reduced-price lunch. Scholars have long noted the inadequacy of this standard as a measure of poverty, and have called for more detailed measures to capture the real differences between school districts (Baker 2011; Lubienski and Crane 2010). Students qualify for free lunches if their family income is below 130 percent of the federal poverty line; they qualify for reduced-price lunches if their families earn less than 185 percent of the federal poverty line. For the 2013–2014 school year, this meant that, in a family of four, children could receive free meals if their family earned less than \$30,615 per year; they could receive reduced-price meals if they earned up to \$43,568 (Federal Register 2013). Obviously, a family of four getting by on \$43,568 faces daunting hardship, but there is a significant difference in the severity of hardship faced by these two sets of families. By lumping these two together as one category, lawmakers obscured great disparities in economic hardship.

For instance, according to Wisconsin's Department of Public Instruction, in 2012–2013, 83.5 percent of students in Milwaukee public schools qualified for free or reduced-price lunches, as shown in **Figure E**. By comparison, in the small town of Seneca, in rural Crawford County, 72.1 percent of schoolchildren qualified for free or reduced-price lunches. If we consider only this one measure, the two school systems appear to face broadly similar socioeconomic challenges. But if we look more deeply, there are striking discrepancies between the two. Most obviously, Seneca's poverty is not on par with Milwaukee's. In Seneca, 49.8 percent of students are eligible for free lunches, and another 22.3 percent come from modestly better-off families eligible only for reduced-price lunches. In Milwaukee, only 5.4 percent of students come

Share of student population eligible for free or reduced-price lunch, Seneca and Milwaukee, 2012–2013



Source: State of Wisconsin Department of Public Instruction (2012)

ECONOMIC POLICY INSTITUTE

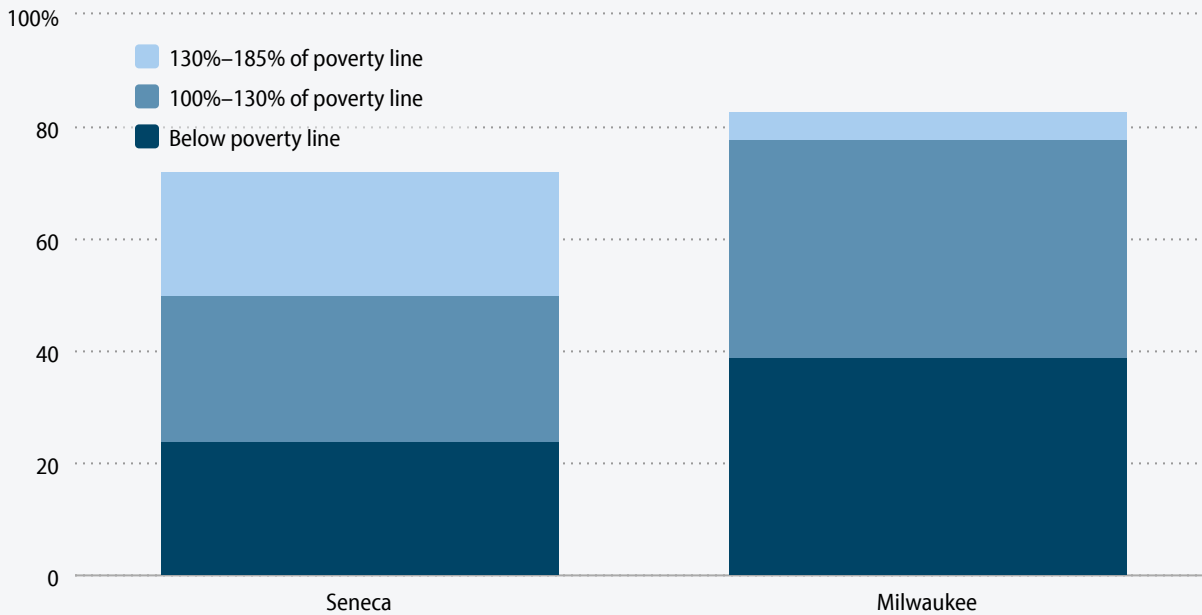
from families whose incomes qualify them for reduced-price lunches; 78.1 percent come from families that earn so little as to qualify for free lunches.

Further, even separating out “free” from “reduced price” meal eligibility does not fully capture the economic differences that characterize distinct school districts. In Seneca, for instance, while almost half the students qualified for free lunches, only 24.2 percent lived in families that were below the poverty line in 2012–2013, as shown in **Figure F**. By contrast, 39 percent of Milwaukee’s students lived in families this poor.³⁰

Finally, measuring poverty is only one end of the economic equation that accounts for differences in educational achievement. In wealthier communities, parents provide their children with a wide range of supports aimed at boosting educational achievement, including books, home computers, tutoring, after-school activities, travel, superior nutrition, medical care, libraries, and even assistance with homework from parents who themselves achieved higher education (Lubienski and Crane 2010). Just as the category of “free or reduced-price eligible” does not capture the great variation of hardship that different school districts face, the category of “not eligible for free or reduced-price lunch” does not capture the differences between modest working- or middle-class communities and those more privileged.

The goal of any school “accountability” measure is to gauge the impact of a school’s educational program while holding everything else equal. To truly separate the impacts of economic inequality from those of teacher or school success, wealth and poverty must be measured more rigorously.

Family income of student population eligible for free or reduced-price lunch, Seneca and Milwaukee, 2012–2013



Source: State of Wisconsin Department of Public Instruction (2012); U.S. Census Bureau (2012)

Similarly, in comparing schools’ special education needs, Sen. Olsen’s bill simply records the total share of students in each school who qualify for any form of special education. This is, indeed, an important measure. Within Milwaukee public schools, 21 percent of students are in need of some type of special education; by comparison, only 9.6 percent of students in Milwaukee charter schools have special needs, and in the Rocketship network of schools the figure drops to 5.5 percent (State of Wisconsin Department of Public Instruction 2014a; Rocketship Education 2014a). But in addition to these differences in overall populations of special education students, the public school system has greater concentrations of students with the most serious, most expensive, and hardest-to-serve disabilities. For instance, the share of all special education students who struggle with autism is one-and-one-half times higher in public schools than in Milwaukee charters, as is the share with emotional and behavioral disabilities; the share of special education students who are cognitively disabled is five times as great in public schools as in privately run charters (State of Wisconsin Department of Public Instruction 2014a). Again, if legislators are to make an accurate comparison among schools, they must take into account these discrepancies as well as differences in the total number of special needs students.

Senate Bill 286’s financial impact on Milwaukee public schools

Legislation modeled along the lines of Senate Bill 286 not only affects which schools are closed and which are expanded, it is also likely to siphon funding out of the Milwaukee Public Schools district (MPS), while leaving MPS with an increasing concentration of students with the greatest and most expensive needs. Over time, this is a formula to bankrupt the school district.

MPS is already struggling financially as a result of legislative action. Wisconsin's 2011–2012 budget resulted in cuts of \$702 per student in high-poverty districts, compared with cuts of \$318 in wealthier districts (Wittkopf 2013, 15). The state's aid designed to equalize funding for high-poverty districts has shrunk (Miller 2014). And state reimbursement for the school district's special education costs, which had once been set at 70 percent, has steadily eroded to 26 percent (Milwaukee Public Schools 2013a).

In addition, the growth of non-district (2R) charter schools (i.e., charter schools that are chartered by an authorizer other than the school district itself) is already diverting funds from MPS in several ways. Title I funds—intended to provide additional support for low-income students—are disproportionately allocated to 2R schools, leaving that much less for MPS (Gordon 2014). As the number of 2R charter schools increases, the financial toll this takes on MPS will grow.³¹

Similarly, MPS is responsible for running programming in the city's parks—for both youth and adults—although it receives no special funding to carry out this mission. These activities are not restricted to MPS students; they are open to the public, including charter students and their families. 2R charter schools receive per-pupil funding from the state with no need to share in the costs of such programming. Again, if more students are forced into charter schools, MPS per-pupil funding will continue to shrink while its responsibilities remain undiminished—thus forcing it to divert funding from schools to meet its obligation to the parks (Miller 2014).

So too, MPS has significant financial obligations for the pensions and health care of retired teachers, and for debt owed on its buildings. For any school system to be financially viable, it must be able to cover the costs of its long-term obligations as well as its immediate cash flow. These costs come out of per-pupil aid. Yet when students are moved to charter schools—currently by choice, in the future perhaps by force—their full per-pupil funding goes to the charter company, which is not obliged to share in servicing the district's long-term obligations. If anything like Senate Bill 286 is enacted into law, the accelerated growth in privately run charter schools will force MPS either to renege on honoring the obligations it has made to long-time teachers, or to cut more funding out of school operations, or both.

Finally, although Sen. Olsen's proposal would force the closure of public schools and their replacement by privately run charters, it would not force those charter schools to accept all of the students who had attended now-shuttered schools. Charter schools have a long history of both explicit and implicit admission screening—such as Rocketship's requirement that all parents sign a contract promising to perform 30 hours per year of volunteer work for the school. In addition, they have often been found to expel or “counsel out” students with special needs or who are otherwise difficult or expensive to educate. A recent study in Chicago, for example, found that charter schools expelled students at a rate 12 times higher than that of public schools (Ahmed-Ullah and Richards 2014). Thus, as charters expand, we should expect them to do what they can to recruit the easiest- and cheapest-to-educate student body. Everyone else—the poorest students, the most transient, the most traumatized, the most severely disabled, and the most in need of health and social services—will be consigned to what's left of MPS. Thus, the district will become a place where increasingly concentrated need is balanced by ever-shrinking resources. This will spell disaster for the students stuck in this system, and at some point it will bankrupt the school district. This is clearly not a good outcome for Milwaukee's children.

Education reform and corporate lobbies

It is puzzling why lawmakers would pursue an education reform agenda that ignores decades of research showing what works in education and instead lays the groundwork for the replacement of traditional public schools with ineffective charter schools, such as those operated by Rocketship. As alluded to previously, to truly understand the education reform push in Milwaukee, it is instructive to analyze the role of corporate lobbies. In so doing, several themes emerge: the dominant role of corporate lobbies in the promotion of online learning and privately run charter schools; the corporate lobbies' support for dramatic cuts in funding for public services, including education; and these same lobbies' advocacy for an economic agenda that makes it harder for many families to work their way out of poverty and thus enable their children to do better in school. The corporate lobbies' proposals to replace public schools with privately run charters are presented as a needed response to "failure." Yet, by supporting reduced school funding and opposing economic standards that make it easier for families to work their way out of poverty, these same organizations are helping create the conditions most likely to ensure failure.

Corporate lobbies' role in transforming schools

In states across the country, the effort to transform public education has received the vigorous support of the nation's most powerful corporate lobbies—both traditional lobbies such as the Chamber of Commerce and the American Legislative Exchange Council, along with newer and more ideologically extreme organizations such as the Koch-backed Americans for Prosperity and Freedomworks (Fischer 2013; Frasier 2013; Given 2013; U.S. Chamber of Commerce 2013; U.S. Chamber of Commerce n.d.; Simon 2014). Thus, in examining this legislative agenda, it is important to also consider what interests may be driving these actors, and how education reform may fit into their broader policy agenda.

Perhaps the most important organization facilitating the work of this coalition is the American Legislative Exchange Council (ALEC). ALEC is a national network that brings state legislators together with the country's largest corporations—including Wal-Mart Stores Inc., The Coca-Cola Company, FedEx, Amway, Exxon Mobil Corp., Koch Industries Inc., and leading tobacco and pharmaceutical firms—to promote business-friendly legislation (Lafer 2013). ALEC's education agenda includes proposals to permanently reduce state budgets; lower the standard of education required for teachers; restrict teachers' rights to collective bargaining; tie teacher pay to student test scores; replace public schools with privately run charters; replace human teachers with online or digital instruction; and insist that online courses, no matter what their actual cost of production, receive the same amount of state funding per student as regular classes (Fischer 2013). One of the past chairs of ALEC's Education Task Force is K12, Inc., the nation's largest for-profit online school, whose chief investors include convicted Wall Street felon Michael Milken. As of 2012, nearly 50 members of the Wisconsin legislature were affiliated with ALEC, and ALEC member corporations had donated hundreds of thousands of dollars to Wisconsin legislative candidates (Center for Media and Democracy 2012).

As already discussed, in Milwaukee and elsewhere, corporate advocates have recently sought to promote the replacement of public schools by privately run charters not on a school-by-school basis, but through the transformation of whole school districts. As illustrated by the situation in Milwaukee, these advocates typically invoke standardized tests to declare a large swath of schools to be irredeemable failures, then close them and send their students (and their tax dollars) to privately run startups.

Creating failure: Slashing public education funding

After the national economy crashed in 2008–2009, states across the country faced record deficits. In response, many states, with the backing of corporate lobbies, enacted harsh cuts in public services, including education. While policy-makers typically justified these cuts as a necessary response to budget shortfalls, in reality the distribution of the steepest cuts in public services and layoffs of public employees did not correspond to states with the most severe fiscal problems (Lafer 2013). This suggests that these cutbacks were more a product of political desire than of economic necessity. For instance, Wisconsin ranked seventh in the country in 2011 in the percentage of public jobs eliminated, yet it was actually one of the few states not facing a budget crisis; on the eve of Gov. Scott Walker’s inauguration, the nonpartisan legislative research office announced that the state would start 2011 with a surplus of \$121 million.³² The budget went into the red only after the governor, as one of his first acts in office and with the active support of Wisconsin’s corporate lobbies, enacted large new tax cuts for the business community (Bauer 2011; Beutler 2011).

The situation in Wisconsin is not unique. Many legislatures enacted new tax giveaways to corporations and the wealthy while simultaneously slashing education funding. For instance, in the same year that Ohio legislators eliminated full-day kindergarten, they also voted to phase out their state’s inheritance tax—which had only ever affected the wealthiest 7 percent of estates—forgoing almost \$300 million a year that could have mitigated the education cuts. This bill received the avid support of the Chamber of Commerce, National Federation of Independent Business, and Americans for Prosperity, which applauded legislators’ “political courage” in abolishing estate taxes.

Consequently, in Wisconsin and elsewhere, state funding for education has declined dramatically in recent years. In 2011–2012, 84 percent of all school districts in the United States made cuts to essential services (Center on Education Policy 2011). As shown in **Figure G**, Wisconsin is second only to Alabama in the severity of its per-pupil cuts to K–12 funding since the Great Recession began. Measuring from prerecession spending levels in 2007–2008 through to the 2013–2014 school year, the legislature cut real (inflation-adjusted) spending by \$1,038 per child (Leachman and Mai 2013).

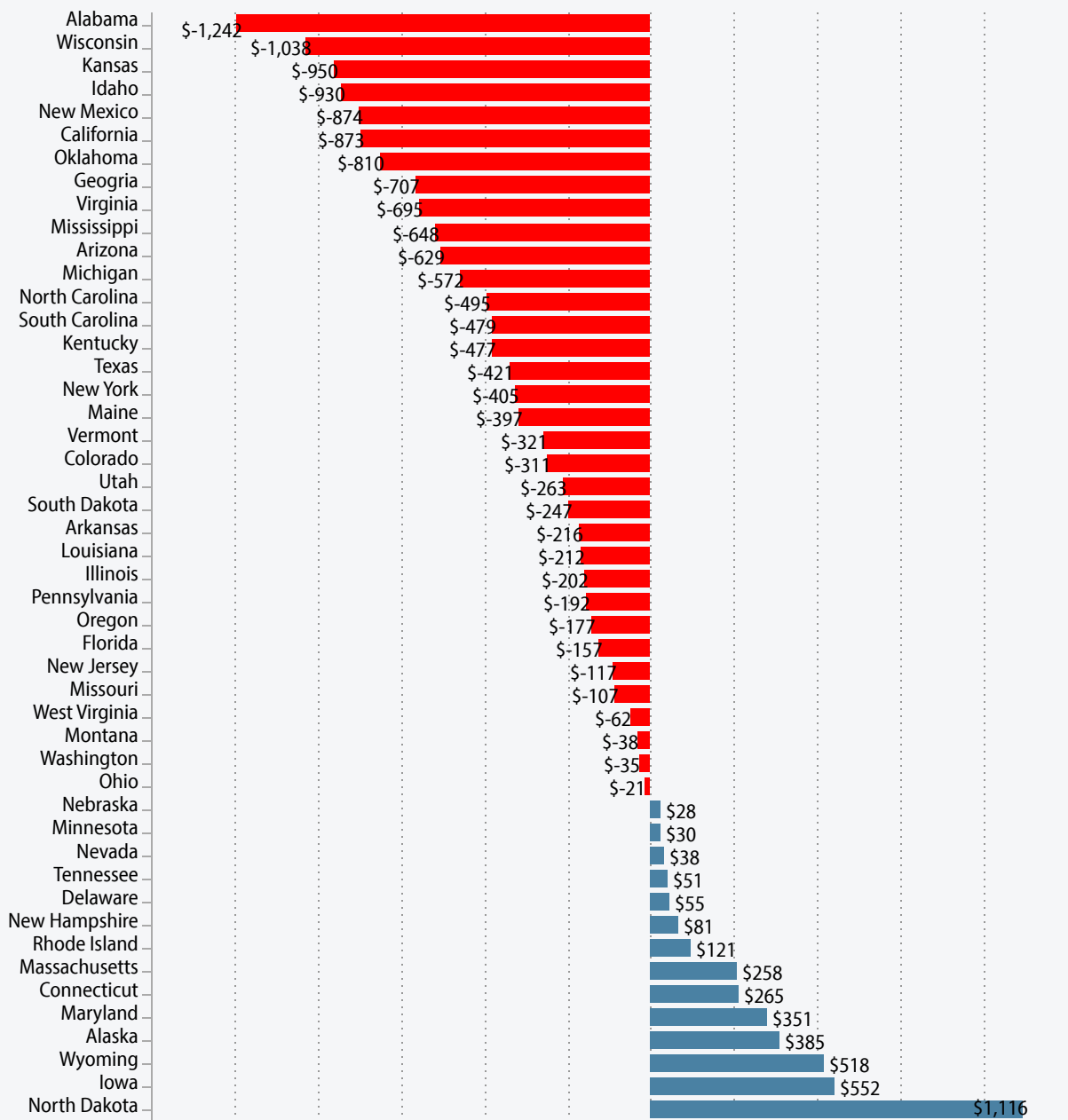
By cutting the resources available to schools, legislators have made it that much harder for students to succeed. This is particularly the case for poor urban schools, whose students have much greater need for small classes, personal attention, enrichment education, and social services than students from wealthier backgrounds—and whose need for all of this is intensified during times of economic hardship.

Creating failure: Making it harder for families to escape poverty

As discussed previously, students’ economic circumstances are a key factor shaping educational success. However, the same corporate lobbies that have been at the forefront of the push for education “reform” have also often opposed measures that would make it easier for the parents of schoolchildren to work their way out of poverty.

For instance, both ALEC and the Chamber of Commerce advocate abolishing the minimum wage. Similarly, legislators have introduced corporate-supported bills in multiple states to loosen restrictions on child labor, strip workers of overtime rights, repeal or restrict rights to paid sick leave, lower wage standards on construction projects, weaken health and safety protections on the job, limit access to benefits for the unemployed, and make it harder to sue one’s employer for race or sex discrimination (Lafer 2013).

Changes in per-pupil state education spending, fiscal 2008–fiscal 2014



Source: Leachman and Mai (2013)

In Wisconsin, legislators followed the urging of corporate lobbyists by abolishing all restrictions on the number of hours high school students are permitted to work during the school year (Lafer 2013).³³ Legislators also voted for significant cuts to the Earned Income Tax Credit, a supplement that helps working families earn their way out of poverty (Peacock 2014). For those unlucky enough to be out of work, legislators instituted a new one-week waiting period before unem-

ployed workers can start collecting benefits; across the state, this change was expected to take over \$40 million away from those recently laid off (Lafer 2013).

In addition to cutting wage standards, Wisconsin also joined other states in rolling back employee benefits. With the backing of Wisconsin Manufacturers and Commerce, the legislature retroactively abolished the right to sick leave that had been established in Milwaukee, approved by 68 percent of voters in a 2008 referendum. Likewise, a pair of ALEC-affiliated legislators cosponsored a bill that would have reduced the benefits provided under the state's Family and Medical Leave Act (Lafer 2013).

At the local level, the Metropolitan Milwaukee Association of Commerce largely advocates the same agenda as the state and national corporate lobbies. MMAC played a central role in overturning the city ordinance establishing a right to paid sick leave.³⁴ This past year, when Milwaukee County Commissioners voted to establish a living wage of \$11.32 per hour for county employees—the equivalent of \$23,000 per year for full-time workers—MMAC successfully lobbied state legislators to nullify the county's decision (Baas 2013b; Schultze 2014). In the 2013–2014 session, MMAC even advocated for a bill “permitting an employee to voluntarily choose to work without one day of rest in seven” (Wisconsin Government Accountability Board 2014c).

The corporate lobbies' proposals to replace public schools with privately run charters are presented as a needed response to “failure.” Yet, by supporting reduced school funding and opposing economic standards that make it easier for families to work their way out of poverty, these same organizations are helping create the conditions most likely to ensure failure. Indeed, the business lobbies appear to be in the odd position of first helping to *create* educational failure by denying schools and families the resources they need to succeed, and then proposing to sweep in with a solution that provides Milwaukee a stripped-down form of education that more privileged parents do not accept for their own children.

School failure is not a fact of nature, and much is known about what might prevent it. For example, small class size has particularly beneficial impacts for disadvantaged students (Center for Public Education n.d.; Smith, Molnar, and Zahorik 2003). Yet the funding formula for Wisconsin's Student Achievement Guarantee in Education (SAGE) program—which as previously mentioned helps schools with high-poverty populations afford smaller classes for kindergarten through third graders—has not been indexed to inflation for the 20 years since its inception (State of Wisconsin Department of Public Instruction 2014c). To call for crisis intervention while opposing the most obvious solutions suggests that these organizations' preferred policies may be driven by something other than altruistic concern for Milwaukee's children.

Conclusion: True accountability for quality education

There is no question that many of Milwaukee's students—like children in other poor cities—deserve a better education. There are a number of positive models of turnaround strategies within the public school system—including a group of schools that have received funding from General Electric to run enrichment programs, and the district's network of science, technology, engineering, and math (STEM) programs (Miller 2014). In 2013, Wisconsin's Department of Public Instruction honored 17 MPS schools as “Schools of Recognition” as high-poverty schools that nevertheless produced high achievements in reading and math growth. And MPS itself has launched a program to redesign its 25 lowest-performing schools through a diverse range of programs, partnerships, and models—including district-authorized charter schools (Milwaukee Public Schools 2013b; 2013c). Thus, all parties seem to agree on the goal of educational improve-

ment. Charter schools may well have a valuable contribution to make toward that goal. But if the system of accountability outlined in Senate Bill 286 is not the right framework for aiding these students, what is?

First, if legislators are serious about improving the education of poor students, the most important thing they could do is to take seriously the fact that poverty itself is the single biggest roadblock to improved education. When students are better housed, better fed, and better cared for—when their parents earn enough to support their families at a dignified and stable standard of living—educational standards will improve dramatically, no matter what type of school students are attending. By contrast, if legislators act to suppress wages and limit social supports to poor families, there is no magical school formula that will compensate for the difficulties these students face. If legislators go down this road, they should be unsurprised to find the Wisconsin Policy Research Institute issuing another report in 20 years that echoes their current commentary on vouchers: The city did everything we told them to, but education did not improve.

Second, among the factors that schools themselves control, the most important step Wisconsin legislators could take is to restore funding of the SAGE program to its originally intended level; through increased funding for limited class sizes, more low-income children would receive the attention they need. As noted previously, while inflation has increased every year, SAGE's per-pupil funding has been frozen for two decades. There are a significant number of Milwaukee schools that have already been forced to drop out of the SAGE program—though their poverty rates render them eligible—because state funding is insufficient and they cannot cover the difference. Indeed, whereas SAGE deems that any school is eligible for support if at least 30 percent of its students are low-income, funding has become so scarce within MPS that the district was forced in 2011 to limit participation to schools with at least 50 percent low-income students. More recently, SAGE participation was shrunken yet further and is now limited to schools where at least 75 percent of the students come from low-income families (Gordon 2014). If lawmakers simply restored the real value of SAGE support—as originally intended by the policymakers who enacted the program—they would increase per-pupil funding by more than 50 percent, thus enabling perhaps thousands of five- to eight-year-olds to reap the benefits of small classes. In so doing, they would likely do much more to improve the quality of Milwaukee education than any school design or technological innovation could hope to achieve.

To measure the relative quality of education across schools, legislators must create means of accurately capturing both what schools face and what they produce. Schools' test scores must be adjusted to reflect more fine-grained measurement of the real differences in wealth and poverty in their student populations. So too, accountability must be based on an apples-to-apples comparison that includes the severity as well as number of special needs the school serves, and the full range of specially challenged populations it serves, including students who are highly mobile or recently returning from criminal justice facilities.

At the same time, measuring the quality of education cannot simply mean totaling up math and reading scores. Every parent knows—and decades of research demonstrate—that much of what it means to be educated is not captured by these tests. State policy for defining high-quality education should reflect the simple principle that poor children are not worth less than rich children; what privileged parents understandably want for their own children's schools is what we should aim to provide for all children, and the extent to which this is achieved should be part of what we measure when we gauge the quality of education that various schools provide. This means that, in producing school report cards, schools should be awarded some measure of recognition for providing children with small classes and well-trained teachers, with an opportunity for diverse modes of learning, and with a full curriculum that includes music, art, hands-on

science, physical education, and access to a library and librarian. As the 2012 National Teacher of the Year noted, measuring education simply by math and reading tests is akin to going to a doctor and asking them to diagnose an illness based solely on one's temperature (Mieliwocki 2012). The technology industry and their investors may want to define education strictly in terms of test scores because it facilitates the sale of digital products. But decades of research show that this misses too much of the picture. Reducing education to what is measurable on machine-graded tests does not empower poor children—it robs them.

Finally, while any educator with energy, commitment, and a proven vision should be welcome in the city, both parents and taxpayers would do well to establish ground rules that all schools must uphold. These might include, for instance, requiring that:

- all schools funded with public tax dollars uphold the same standards of transparency and open records as traditional public schools
- all publicly funded schools uphold the same standards of ethics and prohibitions against conflicts of interest as are demanded of public officials
- all publicly funded schools be governed by a board of directors elected by parents or by the broader community whose tax dollars provide its funding
- all such schools devote at least as high a share of their resources to instruction as do traditional public schools
- any school whose population includes a lower-than-average share of students who are poor, disabled, or otherwise disadvantaged has its funding reduced accordingly, with the remaining funds going to those schools that serve a disproportionately large share of such students

This would begin to define a system of genuine accountability—one that measures schools by the full value of education they provide, and that aims not at enriching a class of investors or carrying out ideological crusades, but at enabling all the city's children to flourish to their full potential.

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Endnotes

1. It is difficult to compare this figure with the performance of public schools. In Ohio's eight largest cities, 88 percent of public schools were also graded D or F; thus, charter and public schools appear to be nearly equal failures (Bush 2013). However, 85 charter schools, dubbed "dropout recovery" schools, were exempted from the grading system following lobbying by a prominent Republican donor who owns a chain of such schools (Dyer 2013). Since these schools have quite low performance, it is likely that their inclusion would have increased the statewide rate of charter school failure.
2. Maul and McClelland (2013) further question the reported results, as the CREDO authors did not control for factors such as the selectivity of which parents choose to send their kids to charter schools and how this may correlate to certain family background characteristics. Rocketship, for instance, requires that all parents sign a contract guaranteeing to ensure their child upholds school policies and that they themselves will volunteer 30 hours per year in the school. It is likely that parents may be unlikely to sign this contract if their families are homeless or transient, or if their work lives make it difficult to strictly police their children's behavior, or if their children have such serious needs that they themselves have no extra capacity to give to school volunteering, or if their own negative school experience makes them lack confidence about their capacity to be school volunteers. Since the CREDO study makes no attempt to control for such variables, Maul and McClelland believe it overestimates the impact of charter school education.
3. ALEC's Virtual Public Schools Act, for instance, mandates that online schools be provided the same dollars per student as physical, in-person schools; legislation based on this model was adopted in five states in 2011–2012. The Koch-backed Americans for Prosperity is likewise a vigorous champion of online learning (Given 2013).
4. According to Rocketship Milwaukee Public School, tutors may be hired with only a high school diploma, but must take a qualifying exam before being hired. Those with any higher degree need not take the exam. Tutors' pay typically starts at \$13 per hour (Rocketship Education 2014a).
5. "As a Teach For America corps member," the organization promises, "you'll develop strengths that are . . . essential to leadership across many other professions. . . . Many exceptional graduate schools and employers . . . actively recruit corps members and alumni" (Teach for America 2014). Indeed, TFA advertises its partnerships with corporations such as JP Morgan Chase, Bain & Company, Deloitte, McKinsey, and General Electric, which offer college graduates two-year "deferrals" to serve in TFA before beginning their corporate careers.
6. Indeed, Rocketship students have sometimes been used as test populations for products under development, as was the case with Equatia, a math application used only by Rocketship whose users, its designer conceded, "did not score significantly higher than the control group" (Fukumoto 2011).
7. The company's earliest funders included Netflix CEO Reed Hastings, Facebook CEO Sheryl Sandberg, SurveyMonkey CEO Dave Goldberg, and Skype CEO Jonathan Chadwick, along with a number of leading venture capital firms (Bowman 2011).
8. The DreamBox website features a federally discredited study that declares the software produces a "50% increase in student proficiency in math," along with a testimonial by Rocketship founder John Danner—who sits on the DreamBox board of directors—touting the program's effectiveness (DreamBox Learning 2014).
9. Milwaukee school board members, for instance, face a blanket prohibition against "engaging in any outside matters of financial or personal interest which are incompatible with the impartial and objective performance of their duties. . . . [and may not] seek or accept personal gain which would influence, or appear to influence, the conduct of their official duties" (Milwaukee Public Schools 2014).

- 10.** Rocketship’s “Conflicts of Interest Code” adopts the Orwellian logic that “a conflicting interest does not necessarily create a conflict of interest.” No conflict exists as long as the Rocketship board determines that the company could not “obtain . . . a more advantageous transaction” from another party (Rocketship Education 2011). Thus, Rocketship follows the logic of profit maximization rather than public accountability or educational rigor. If the DreamBox contract is “advantageous” because it solidifies venture capital firms’ support for Rocketship’s expansion, it may not be judged a conflict of interest even if the software is inferior.
- 11.** In both cases, this category is for central administration only and does not include in-school administrative staff or supplies. Rocketship’s central administrative costs include annual payments to its charter authorizer, to Teach for America, to its Wisconsin regional office, and to Rocketship’s national headquarters in California. National research suggests that charter schools generally spend a higher percentage of revenues on administrators and a lower percentage on student instruction than do public schools (Miron and Urschel 2010). Even so, Rocketship seems to be exceptional in this regard.
- 12.** One survey discovered that, on average, by her fourth birthday a child from a professional family has experienced almost 45 million words. In contrast, a working-class child has experienced 26 million words, and a child from a family that qualifies for welfare only 13 million words (Hart and Risley 2003).
- 13.** STAR was a multimillion dollar study that tracked thousands of students over a four-year period in the late 1980s. It is the largest statistically rigorous study of its kind ever conducted, and it remains the premier study on this issue.
- 14.** Indeed, later research showed that students enrolled in small class sizes in kindergarten through third grade under the STAR program were statistically more likely to graduate high school, enroll in honors classes, graduate near the top of their senior class, and apply to college. In addition, the achievement gap between black and white students was cut in half for black students whose first four years of school took place in smaller classes (American Federation of Teachers 2010). After California in 1996 undertook an effort to cut K–3 class sizes from 30 to 20, researchers reached similar conclusions: The smaller classes led to statistically significant improvement in students’ math and reading scores, but the impacts were lessened where teachers were inexperienced or uncertified (Jensen and Rivkin 2009).
- 15.** Although this study is undated, the most recent research it references is dated 2004; therefore, it appears likely that the study was conducted in approximately 2005–2006.
- 16.** In addition to smaller classes, SAGE also mandates improving curriculum, teacher professional development, and full-day access to school facilities.
- 17.** The National Commission on Teaching and America’s Future reports that “staff churn . . . is concentrated . . . in chronically underperforming schools serving low-income children. These schools rarely close the student achievement gap because they never close the teaching quality gap. . . . [T]heir students struggle year after year with a passing parade of inexperienced beginners, while students in high performing schools enjoy the support of teams of accomplished veterans . . .” (Carroll and Foster 2010).
- 18.** For several decades educators have sought to identify the specific different ways that children learn, in order to help teachers provide appropriate pathways for each child. One recent study (Gregory and Chapman 2013, 164) suggests that the range of preferred student learning strategies might include the following: Verbal/linguistic (embodied in “preparing a report” or “writing a play or an essay”), bodily/kinesthetic (“develop a mime” or “work through a simulation”), musical/rhythmic (“compose a rap song or rhyme”), naturalist (“discover or experiment” or “look for ideas from nature”), visual/spatial (“draw a picture” or “design a graphic”), interpersonal (“work with a partner or group”), logical/mathematical (“create a pattern” or “timeline”), or intrapersonal (“review or visualize a way to do something” or “write in a journal”). A number of scholars have attempted to establish the impact of differing modes of learning on academic test scores, with a number of studies reporting that when a student’s “learning style” is correctly identified and matched with appropriate instructional methods, achievement test scores

improve (Dunn et al. 1995; Lovelace 2005). Ultimately, however, this remains one of the many dimensions of education that is not captured in standardized test scores. Due to the difficulty of educators agreeing on and identifying the precise dividing line between various ways of learning, as well as the difficulty of running controlled experiments with young children, there is no conclusive statistical proof identifying a specific set of “learning styles” that teachers should build curricula around.

19. Several studies likewise report that additional years of high school arts education are correlated with higher SAT scores for both math and English (Ruppert 2006). This outcome becomes less surprising when one examines the wide range of evidence linking art, drama, and music education with intellectual skills related to literacy and math. One review of the research identified, among others, associations between “visual arts instruction and reading readiness; dramatic enactment and conflict resolution skills; traditional dance and nonverbal reasoning; and learning piano and mathematics proficiency” (Deasy 2002).
20. Indeed, incremental differences in school libraries’ budgets, the size of library collections, the number of hours students have access to the library, and the role of certified librarians in teacher professional development all have a statistically significant impact on improving educational achievement. Furthermore, over the past 10 years, states that added librarians to their school staffs saw significantly greater improvement in elementary school reading scores than those that reduced their number of librarians (Lance and Hofschire 2011).
21. In 2012, a number of countries caught up with Finland’s test performance and some surpassed it, for reasons that may have to do with education or simply with test-preparation regimes designed around the PISA exam. Nevertheless, the country has one of the highest-scoring student bodies in the world, outperforming the United States on all measures by a wide margin (Programme for International Student Assessment 2012).
22. Wisconsin’s Act 20 largely reflects ALEC’s Alternative Certification Act (Fischer 2013).
23. The former Education Ministry’s Director General explains that “most primary schools in Finland have professionals who understand the nature of teaching and learning—as well as assessing—mathematics. . . . [M]athematics curriculum . . . have a strong focus on problem solving, thereby linking mathematics to the real world of students. . . . [T]he education of mathematics teachers . . . is based on subject didactics. . . . This guarantees that newly trained teachers with master’s degrees have a systemic knowledge and understanding of how mathematics is learned and taught. . . . [Science teachers’ training is] focused on building pedagogical content knowledge. . . . [T]hus the science curriculum . . . has been transformed from traditional academic knowledge-based to experiment- and problem-oriented curriculum. This change has been followed by massive national professional development support for all primary school science teachers” (Sahlberg 2010, 52).
24. Magill’s comments were originally made on the school’s website in 2009 (<http://www.ucls.uchicago.edu/news/detail.aspx?linkid=2480&moduleid=133>), and are quoted in Elk (2012).
25. While neither teachers, principals, nor Milwaukee school board members were invited to participate, those in attendance included Milwaukee’s superintendent of education, Mayor Tom Barrett, the city’s Common Council, Senate Education Committee Chair Luther Olsen, and longtime Education Committee member and ALEC affiliate Sen. Alberta Darling. Attendees were treated to presentations by representatives from both New Orleans’ “Recovery District” and Tennessee’s recently created “Achievement District”—two initiatives that closed poor urban schools and, through a state-appointed overseer, largely replaced them with charters. Both touted their efforts as examples of striking success, though the impact of school privatization in New Orleans remains hotly contested, and the National Education Policy Center (NEPC) gave the claims presented at MMAC’s conference its “Bunkum Award” for providing the country’s “most bountiful wellspring of misleading education reform information” (National Education Policy Center 2013). (For NEPC’s more serious and detailed review of these presentations, see DeBray and Jabbar 2013 and Mathis and Maul 2013.) However valid the evidence, MMAC President Tim Sheehy concluded that Milwaukee students might benefit by the creation of a similar “achievement district” (Richards 2013b).

- 26.** In October 2013, ALEC member Sen. Alberta Darling introduced Senate Bill 76, which mandated that privately operated charter schools be allowed to expand indefinitely as long as their school scores were at least modestly above average (State of Wisconsin 2013b). Those supporting the bill included Rocketship Education as well as the ALEC-affiliated and corporate-funded American Federation for Children. One of its most outspoken supporters was MMAC, whose representative vowed to “forcefully push for this change” (Wisconsin Senate 2013; Baas 2013a). In January 2014, Assembly Bill 549 was presented to the Committee on Urban Education (Wisconsin Legislature 2013). This bill would have expanded the number of agencies empowered to authorize new charter schools, required authorizers to approve two new schools per year for any charter whose students scored 10 percent above their district’s average, and prohibited school districts from creating charter schools whose teachers are public employees. The American Federation of Children supported this legislation, along with Wisconsin Manufacturers and Commerce and MMAC, which reported spending 65 hours lobbying on behalf of the bill (Wisconsin Government Accountability Board 2014a). In February 2014, Assembly Education Committee Chair Steve Kestell and ALEC member Rep. James Steineke introduced Assembly Bill 379, the companion bill to Senate Bill 86. Like Senate Bill 86, this bill mandated that a public school graded “F” for three consecutive years be closed and replaced with a charter, while charter schools could not be closed until their ninth year of operation, even if they received F’s every year (State of Wisconsin 2014b). K-12, Inc., the nation’s largest for-profit virtual school and member of ALEC’s Education Task Force, lobbied on behalf of the bill (Wisconsin Government Accountability Board 2014b).
- 27.** Private schools receiving three F’s in a row would be barred from enrolling future students whose tuition is paid by public vouchers, but would remain eligible for vouchers for currently enrolled students for as long as they remain enrolled—even if this entails funding current kindergartners through to high school graduation.
- 28.** Indeed, a recent report found that, under this old system, nearly 50 percent of every school’s score was simply a reflection of its students’ wealth or poverty (Wittkopf 2013).
- 29.** The comparison used is school student growth rates, averaged for all “2R” charter schools (i.e., charter schools that are chartered by an authorizer other than the school district itself).
- 30.** Data are for children aged 5–17.
- 31.** This is the case for two reasons. First, although MPS is responsible for administering the Title I program for 2R schools, the cost of performing this function comes out of funds designated for MPS students rather than charter students. Secondly, while MPS’ Title I funding is based on the number of students living below the poverty line, non-district charter schools are eligible for Title I based on their number of students eligible for free and reduced-price lunch, a much higher threshold. Thus, charter schools receive funding for students who would not be eligible for Title I support if they were in public schools—and this funding comes out of the state’s overall allocation, thus reducing the amount left for truly poor students in MPS schools.
- 32.** Author’s calculation based on BLS data presented in Dadayan (2012).
- 33.** Previously, 16- and 17-year-olds could not work more than five hours a day on school days, not more than 26 hours per week during the school year, and not more than six days in a row. Ironically, one of ALEC’s model bills opposing minimum-wage increases argues that “studies show that increasing starting wages lures high school students into the full-time work force, resulting in an increase in high school drop-out rates,” and that therefore the minimum wage should be kept low in order to avoid having students work more and study less. Nevertheless, ALEC-affiliated lawmakers in Madison approved a law that frees 16- and 17-year-olds to work an unlimited number of hours per week, seven days a week, throughout the school year. The bill’s passage was celebrated by the Wisconsin Grocery Association, which explained that grocers are not “trying to overwork these kids or create a sweatshop,” but “just want to give kids that great first opportunity you get in a grocery store.” (Lafer 2013)

34. In 2011, MMAC filed suit to block implementation of the law, and then joined state corporate lobbies to advocate for the state legislature to overturn it. Milwaukee businesses “don’t need an arbitrary standard of care on how to attract and keep” employees, MMAC President Tim Sheehy explained (Ploor 2011; Pimentel 2011).

References

- Ahmed-Ullah, Noreen, and Alex Richards. 2014. “CPS: Expulsion Rate Higher at Charter Schools.” *Chicago Tribune*, February 26. <http://www.chicagotribune.com/news/education/ct-chicago-schools-discipline-met-20140226%2c0%2c2973303.story>
- American Federation of Teachers. 2010. *Benefits of Small Class Size*. www.aft.org/pdfs/teachers/ib_classsize0410.pdf
- Anonymous. 2013. “A Rocketship Teacher Warns: Stop the Expansion.” *Diane Ravitch’s Blog*, October 21. <http://dianeravitch.net/2013/10/21/a-rocketship-teacher-warns-stop-the-expansion>
- Aspen Institute. n.d. “About John Danner.” Aspen Action Forum (accessed March 28). <http://www.aspenactionforum.org/users/johndanner>
- Baas, Steve. 2013a. Statement on behalf of Metropolitan Milwaukee Association of Commerce before the Senate Committee on Public Education, Hearing on Senate Bill 76, October 3. Hearing video accessed March 26, 2014. <http://www.wiseeye.org/videoplayer/vp.html?sid=10636>
- Baas, Steve. 2013b. “Living Wage Ordinance Would Kill Jobs.” *Milwaukee Business Times*, September 12. <http://www.biztimes.com/article/20130912/BLOGS/120919939/Living-wage-ordinance-would-kill-jobs>
- Baker, Bruce. 2011. “Research Warning Label: Analysis Contains Inadequate Measurement of Student Poverty.” *School Finance 101*, April 27. <http://schoolfinance101.wordpress.com/2011/04/27/research-warning-label-analysis-contains-inadequate-measurement-of-student-poverty>
- Bauer, Scott. 2011. “Wisconsin Legislature Passes Tax Cut.” *Associated Press*, January 25. http://www.boston.com/business/taxes/articles/2011/01/25/wisconsin_legislature_passes_tax_cut
- Beutler, Brian. 2011. “Wisconsin Gov. Walker Ginned Up Budget Shortfall to Undercut Workers Rights.” *Talking Point Memo*, February 17. <http://talkingpointsmemo.com/dc/wisconsin-gov-walker-ginned-up-budget-shortfall-to-undercut-worker-rights>
- Boaler, Jo. 2012. “Timed Tests and the Development of Math Anxiety.” *Education Week*, July 3. <http://www.edweek.org/ew/articles/2012/07/03/36boaler.h31.html?tkn=VOQFK9Wq%2FQyFHqgUJA20N6MixLTNTr2KA%2Fy&cmp=clp-edweek>
- Bowman, Matt. 2011. “Silicon Valley Leaders Invest Over \$3M in Rocketship Education.” *Venture Beat*, May 12. <http://venturebeat.com/2011/05/12/silicon-valley-leaders-invest-over-3m-in-rocketship-education>
- Bush, Bill. 2013. “Charter Schools’ Failed Promise.” *Columbus Dispatch*, September 1. <http://www.dispatch.com/content/stories/local/2013/09/01/charter-schools-failed-promise.html>
- California Department of Education. 2010. *Program Improvement Years 1 & 2: Newly Identified/Continuing Improvement, July*. <http://www.cde.ca.gov/ta/ac/ti/schoolpireq.asp>
- Cambridge Associates. 2013. *U.S. Venture Capital Index and Selected Benchmark Statistics*. http://www.nvca.org/index.php?option=com_content&view=article&id=344&Itemid=103.

Carisch, Tracey. 2012 “The Truth About Timed Tests.” *STEM Innovation Hub*. <http://stemhub.wpengine.com/uncategorized/the-truth-about-timed-times/#.Uy3Ena1dVvZ>

Carroll, Thomas, and Elizabeth Foster. 2010. *Who Will Teach? Experience Matters*. National Commission on Teaching and America’s Future. <http://nctaf.org/wp-content/uploads/2012/01/NCTAF-Who-Will-Teach-Experience-Matters-2010-report.pdf>

Catterall, James. 2002. “Involvement in the Arts and Success in Secondary School,” in Richard Deasy, ed., *Critical Links: Learning in the Arts and Student Achievement and Social Development*. Washington, D.C.: Arts Education Partnership. <http://www.gpo.gov/fdsys/pkg/ERIC-ED466413/pdf/ERIC-ED466413.pdf>

Center for Media and Democracy. 2012. *ALEC Exposed Wisconsin: The Hijacking of a State*. http://alecexposed.org/w/images/c/cd/ALEC_Exposed_in_Wisconsin.pdf

Center for Media and Democracy. 2013. *Exposed: The State Policy Network*. http://www.scribd.com/fullscreen/183674154?access_key=key-2indaghtjrwhs29x3q1t&allow_share=true&escape=false&view_mode=scroll

Center for Public Education. n.d. *Class Size and Student Achievement: Research Review*. <http://www.centerforpubliceducation.org/Main-Menu/Organizing-a-school/Class-size-and-student-achievement-At-a-glance/Class-size-and-student-achievement-Research-review.html>

Center for Research on Education Outcomes (CREDO). 2009. *Multiple Choice: Charter School Performance in 16 States*. Stanford University. http://credo.stanford.edu/reports/MULTIPLE_CHOICE_CREDO.pdf

Center for Research on Education Outcomes (CREDO). 2013. *National Charter School Study 2013*. Stanford University. <http://credo.stanford.edu/documents/NCSS%202013%20Final%20Draft.pdf>

Center on Education Policy. 2011. *Strained Schools Face Bleak Future: Districts Foresee Budget Cuts, Teacher Layoffs, and a Slowing of Education Reform Efforts*. <http://files.eric.ed.gov/fulltext/ED521335.pdf>

Chubb, John, and Terry Moe. 1989. *Educational Choice: Answers to the Most Frequently Asked Questions About Mediocrity in American Education and What Can Be Done About It*. Wisconsin Policy Research Institute Report, vol. 2, no. 3, March.

Congressional Budget Office. 2013. *The Budget and Economic Outlook: Fiscal Years 2013 to 2023*. <http://www.cbo.gov/sites/default/files/cbofiles/attachments/43907-BudgetOutlook.pdf>

Conniff, Ruth. 2013. “Wisconsin School Privatization Gets Shot of Rocket Fuel.” *The Progressive*, December 20. <http://www.publicschoolshakedown.org/wisconsin-school-privatization-gets-shot-of-rocket-fuel>

Cook, John. 2013. “Netflix CEO Reed Hastings, VC John Doerr invest \$14.5M in DreamBox Learning.” *Geek Wire*, December 17. <http://www.geekwire.com/2013/netflix-ceo-reed-hastings-vc-john-doerr-invest-145m-dreambox-learning>

Crotty, James Marshall. 2012. “Reed Hastings on How to Build a \$20 Billion Education Juggernaut.” *Forbes*, May 11. <http://www.forbes.com/sites/jamesmarshallcrotty/2012/05/11/reed-hastings-on-what-it-takes-to-grow-a-20-billion-education-company/2>

Dadayan, Lucy. 2012. “State and Local Government Jobs Continue to Decline in Most States.” Rockefeller Institute Data Alert, February 17.

Danner, John. 2010. “Interview: John Danner, CEO, Rocketship Education.” *EdTech*, May 18. <http://gettingsmart.com/2010/05/interview-john-danner-ceo-rocketship-education>

- Danner, John. 2013. "Know, Think, Do." *Beyond Schools*, May 17. <http://beyondschools2.blogspot.com/2013/05/know-think-do.html>
- De La Rosa & Co. 2014. *Limited Offering Memorandum, California Municipal Finance Authority, Charter School Revenue Bonds (Rocketship Education – Multiple Projects), Series 2014A-2014B*, January 29. <http://emma.msrb.org/IssueView/IssueDetails.aspx?id=ER359861> [All information about Rocketship is provided by Rocketship Education.]
- Deasy, Richard, ed. 2002. *Critical Links: Learning in the Arts and Student Achievement and Social Development*. Washington, D.C.: Arts Education Partnership. <http://www.gpo.gov/fdsys/pkg/ERIC-ED466413/pdf/ERIC-ED466413.pdf>
- DeBray, Elizabeth, and Huriya Jabbar. 2013. *Review of Two Presentations on the Portfolio School Model*. National Education Policy Center. <http://nepc.colorado.edu/thinktank/review-portfolio-districts>
- DeFour, Matthew, and Molly Beck. 2014. "Major Changes to School Report Card Proposed, Including Closing Poorly Performing Schools." *Wisconsin State Journal*, January 28. http://host.madison.com/news/local/govt-and-politics/major-changes-to-school-report-card-proposed-including-closing-poorly/article_fe5001f2-7b4e-538e-b057-57309d1688f3.html
- DreamBox Learning. 2014. *DreamBox Is Proven Effective at Math Instruction*. Accessed March 28, 2014. <http://www.dreambox.com/effectiveness-studies>
- Dunn, Rita, Shirley Griggs, Jeffery Olson, Mark Beasley, and Bernard Gorman. 1995. "A Meta-Analytical Validation of the Dunn and Dunn Model of Learning Style Preferences." *Journal of Educational Research*, vol. 88, no. 6, 353–362.
- Dyer, Stephen. 2013. *Dropout Recovery Charter Schools Exempt from State Report Card*. Innovation Ohio. <http://innovationohio.org/2013/08/27/dropout-recovery-charter-schools-exempt-from-state-report-card>
- Elk, Mike. 2012. "Director of Private School Where Rahm Sends His Kids Opposes Using Testing for Teacher Evaluations." *In These Times*, September 11.
- Evers, Tony. 2014. Testimony on Substitute Amendment 1 to Assembly Bill 279, Wisconsin Department of Public Instruction, February 12. http://pb.dpi.wi.gov/files/pb/pdf/AB_379_ASA1_AccountabilityTestimony.pdf
- Farley, Todd. 2009. *Making the Grade: My Misadventures in the Standardized Testing Industry*. Berrett-Koehler Publishers.
- Federal Register. 2013. Vol. 78, No. 61. U.S. Department of Agriculture, Food and Nutrition Service, Child and Nutrition Programs; Income Eligibility Guidelines, March 29.
- Fensterwald, John. 2011. "Learning Labs 101: Inside Rocketship, One of the Best-Known Blended Learning Initiatives in the Country." *Scholastic Administrator*. <http://www.scholastic.com/browse/article.jsp?id=3757077>
- Fischer, Brendan. 2013. *Cashing In on Kids: 139 ALEC Bills in 2013 Promote Private, For-Profit Education Model*. Center for Media and Democracy. <http://www.prwatch.org/node/12175>
- Frasier, Brendan. 2013. "Scott Walker, GOP Slip ALEC Education Agenda into Wisconsin Budget." *PR Watch*, Center for Media and Democracy, May 23. <http://www.prwatch.org/news/2013/05/12099/scott-walker-gop-slip-alec-education-agenda-wisconsin-budget>
- Fukumoto, Brady. 2011. *Equatia: Master's Project*. Stanford School of Education, Learning Design and Technology. https://www.luckybirdgames.com/docs/Equatia_LDTthesis_forweb.pdf

- Garcia, Arturo. 2014. "Netflix CEO Reed Hastings Wants to 'Steadily' Replace School Boards with Charter Schools." *The Raw Story*, March 17. <http://www.rawstory.com/rs/2014/03/17/netflix-ceo-reed-hastings-wants-to-steadily-replace-school-boards-with-charter-schools>
- Given, Casey. 2013. *The Great Equalizer: How Online Learning Promises Every Student an Excellent Education*. Americans for Prosperity, Policy Paper No. 1302. <http://americansforprosperityfoundation.com/wp-content/uploads/2013/09/The-Great-Equalizer.pdf>
- Gordon, Shannon. 2014. Finance director, Milwaukee Public Schools. Email communication with the author, March 29.
- Gregory, Gayle, and Carolyn Chapman. 2013. *Differential Instructional Strategies: One Size Doesn't Fit All*. Thousand Oaks, CA: Corwin Press.
- Haines, Kristoffer, Caryn Voskuil, and Farah Dilber. 2014. Rocketship Education senior vice president of growth and development; manager of school model innovation; and director of teachers and learning. Interview with the author, March 31.
- Hamblen, Jessica, and Erin Barnett. 2012. *PTSD in Children and Adolescents*. U.S. Department of Veterans Affairs, National Center for PTSD. http://www.ptsd.va.gov/PTSD/professional/treatment/children/ptsd_in_children_and_adolescents_overview_for_professionals.asp
- Hart, Betty, and Todd Risley. 2003. "The Early Catastrophe: The 30 Million Word Gap by Age 3." *American Educator*, Spring, 4–9. www.aft.org/pdfs/americaneducator/spring2003/TheEarlyCatastrophe.pdf
- Heitin, Liana. 2010. "U.S. Found to Recruit Fewer Teachers From Top Ranks." *Education Week*, October 20. <http://www.edweek.org/ew/articles/2010/10/15/08teachers.h30.html>
- Herold, Ben. 2014. "A Student's Day in the Flexible Classroom." *Education Week*, January 17. <http://www.edweek.org/ew/section/multimedia/blended-learning-flexible-classroom.html>
- Hess, Frederick, and Carolyn Sattin-Bajaj. 2013. "Roadmap for Education Reform," in Kozak, Warren, ed., *Pathway to Success for Milwaukee Schools*. Wisconsin Policy Research Institute, 2–15. http://www.aei.org/files/2013/05/29/-pathway-to-success_170815996739.pdf
- Hiss, William, and Valerie Franks. 2014. *Defining Promise: Optional Standardized Testing Policies in American College and University Admissions*. National Association for College Admissions Counseling. <http://www.nacacnet.org/research/research-data/nacac-research/Documents/DefiningPromise.pdf>
- Horn, Michael, and Meg Evans. 2013. "New Schools and Innovative Delivery," in Kozak, Warren, ed., *Pathway to Success for Milwaukee Schools*. Wisconsin Policy Research Institute, 16–27. http://www.aei.org/files/2013/05/29/-pathway-to-success_170815996739.pdf
- Huang, Francis. 2009. "Is Experience the Best Teacher? A Multilevel Analysis of Teacher Qualifications and Academic Achievement in Low Performing Schools." *Educational Assessment, Evaluation and Accountability*, vol. 21, no. 3, 209–234. <http://link.springer.com/article/10.1007%2Fs11092-009-9074-2>
- Indiana Department of Education. 2012. *2012 A-F School Grade Results*. <http://www.doe.in.gov/improvement/accountability/f-accountability>
- Isenberg, Joan, and Mary Jalongo. 2005. *Creative Thinking and Arts-Based Learning*. Prentice Hall.

- Jensen, Christopher, and Steven Rivkin. 2009. "Class Size Reduction and Student Achievement: The Potential Tradeoff Between Teacher Quality and Class Size." *Journal of Human Resources*, vol. 44, 223–250.
- Kachel, Debra. 2013. *School Library Research Summarized: A Graduate Class Project*. Mansfield University. <http://keithcurrylance.com/wp-content/uploads/2013/07/MU-LibAdvoBklt2013.pdf>
- Kachel, Debra, and Keith Curry Lance. 2013. "Latest Study: A Full-Time School Librarian Makes a Critical Difference in Boosting Student Achievement." *School Library Journal*, March 7. <http://www.slj.com/2013/03/research/librarian-required-a-new-study-shows-that-a-full-time-school-librarian-makes-a-critical-difference-in-boosting-student-achievement>
- Kingsland, Neerav. 2013. "The Recovery School District Model," in Kozak, Warren, ed., *Pathway to Success for Milwaukee Schools*. Wisconsin Policy Research Institute, 40–49. http://www.aei.org/files/2013/05/29/-pathway-to-success_170815996739.pdf
- Kozak, Warren, ed. 2013. *Pathway to Success for Milwaukee Schools*. Wisconsin Policy Research Institute. http://www.aei.org/files/2013/05/29/-pathway-to-success_170815996739.pdf
- Lafer, Gordon. 2013. *The Legislative Attack on American Wages and Labor Standards, 2011–2012*. Economic Policy Institute, Briefing Paper No. 364. <http://www.epi.org/publication/attack-on-american-labor-standards>
- Lance, Keith Curry, and Linda Hofschire. 2011. "Something to Shout About: New Research Shows that More Librarians Means Higher Reading Scores." *School Library Journal*, September 1. <http://www.slj.com/2011/09/industry-news/something-to-shout-about-new-research-shows-that-more-librarians-means-higher-reading-scores>
- Laneri, Raquel. 2010. "Special Report: America's Best Prep Schools." *Forbes*, April 29. http://www.forbes.com/2010/04/29/best-prep-schools-2010-opinions-private-education_print.html
- Lawrence, Sue, M. DeSilva, and R. Henley. 2010. *Sports and Games for Post-Traumatic Stress Disorder (PTSD): Review*. The Cochrane Collaboration. <http://www.thecochranelibrary.com/userfiles/ccoch/file/PTSD/CD007171.pdf>
- Layton, Lyndsey. 2012. "Is a Charter School Chain Called Rocketship Ready to Soar Across America?" *Washington Post*, July 29. http://www.washingtonpost.com/local/education/is-a-charter-school-chain-called-rocketship-ready-to-soar-across-america/2012/07/29/gJQASrShIX_story.html
- Leachman, Michael, and Chris Mai. 2013. *Most States Funding Schools Less Than Before the Recession*. Center on Budget and Policy Priorities. <http://www.cbpp.org/cms/index.cfm?fa=view&cid=4011#>
- Lovelace, Maryann Kiely. 2005. "Meta-Analysis of Experimental Research Based on the Dunn and Dunn Model." *Journal of Educational Research*, vol. 98, no. 3, 176–183. <http://www.jstor.org/discover/10.2307/27548075?uid=3739856&uid=2129&uid=2&uid=70&uid=4&uid=3739256&sid=21103855430413>
- Lubienski, Sarah Theule, and Corinna Crawford Crane. 2010. "Beyond Free Lunch: Which Family Background Measures Matter?" *Education Policy Analysis Archives*, vol. 18, no. 11. <http://epaa.asu.edu/ojs/article/view/756/833>
- Lubienski, Christopher, and Sarah Theule Lubienski. 2014. *The Public School Advantage: Why Public Schools Outperform Private Schools*. Chicago: University of Chicago Press.
- Maitre, Michelle. 2014. "High School Grades Are a Better Predictor of College Success than SAT, ACT, Study Says." *EdSource*, February 21. <http://edsources.org/2014/high-school-grades-are-a-better-predictor-of-college-success-than-sat-act-study-says/58033#.UziuKK1dVvY>

Mathis, William, and Andrew Maul. 2013. *New Orleans Charter School Study: Comparing Incomparables, Repeated Errors, and Small Differences*. National Education Policy Center. <http://nepc.colorado.edu/newsletter/2013/08/review-credo-2013-NOLA>

Maul, Andrew, and Abby McClelland. 2013. Review of National Charter School Study 2013. National Education Policy Center, July. http://nepc.colorado.edu/files/ttr-_credo2013.pdf

Merrow, John. 2012. "Learning Matters." *PBS News Hour*, December 28. <http://learningmatters.tv/transcripts/newshour/Rocketship.pdf>

Mieliwocki, Rebecca. 2012. "2012 National Teacher of the Year: Interview with Ray Suarez." *PBS News Hour*, September 26. http://www.pbs.org/newshour/bb/education/july-dec12/2012teacher_09-26.html

Miller, Edward, and Joan Almon. 2009. *Crisis in the Kindergarten: Why Children Need to Play in School*. Alliance for Childhood. http://www.allianceforchildhood.org/sites/allianceforchildhood.org/files/file/kindergarten_report.pdf

Miller, Larry. 2014. Interview with the author, February 11.

Milwaukee Public Schools 2011. *2010-2011 District Report Card*. http://www2.milwaukee.k12.wi.us/acctrep/district_data_report_card_1011.pdf

Milwaukee Public Schools 2013a. *Five Year Forecast*. Provided to author by Milwaukee Public Schools board member Larry Miller.

Milwaukee Public Schools 2013b. "More MPS Schools Honored for Moving Low-Income Students Forward." News release, September 5. <http://www5.milwaukee.k12.wi.us/dept/superintendent/2013/09/more-mps-schools-honored-for-moving-low-income-students-forward>

Milwaukee Public Schools. 2013c. *Report and Possible Action on Low-Performing Schools Proposal*. <http://board.milwaukee.k12.wi.us/attachments/7dd0b484-581e-4691-b225-8ad77bc91022.pdf>

Milwaukee Public Schools. 2014. *Board Rule 3.01, Code of Ethics*. Board of School Directors, revised February 26, 1997; Section 7, Conflicts of Interest. Accessed March 28. <http://www2.milwaukee.k12.wi.us/governance/pm-apols.php>

Miron, Gary, and Charisse Gulosino. 2013. *Profiles of For-Profit and Nonprofit Education Management Organizations, Fourteenth Edition—2011-2012*. National Education Policy Center. <http://nepc.colorado.edu/publication/EMO-profiles-11-12>

Miron, Gary, and Jessica Urschel. 2010. *Equal or Fair? A Study of Revenue and Expenditures in American Charter Schools*. Education and the Public Interest Center and Education Policy Research Unit. <http://nepc.colorado.edu/publication/charter-school-finance.pdf>

Miron, Gary, and Jessica Urschel. 2012. "The Impact of School Choice Reforms on Student Achievement," in Gary Miron, Kevin Welner, Patrician Hinchey, and William Mathis, eds., *Exploring the School Choice Universe: Evidence and Recommendations*. Charlotte: Information Age Publishers.

Miron, Gary, Jessica Urschel, Mayra Aguilar, and Breanna Dailey. 2012. *Profiles of For-Profit and Nonprofit Education Management Organizations, Thirteenth Annual Report, 2010-11*. National Education Policy Center. http://nepc.colorado.edu/files/EMO-profiles-10-11_0.pdf

Molnar, Alex, and Janice Zmrazek. 1994. *Improving the Achievement of Wisconsin's Students: Urban Initiative Task Force Recommendations and Action Plan*. Wisconsin Department of Public Instruction. <http://www.asu.edu/educ/epsI/SAGE/documents/uitf.pdf>

- Molnar, Alex. 1998. *Smaller Classes, Not Vouchers, Increase Student Achievement*. Keystone Research Center. <http://nepc.colorado.edu/files/smClassizes.pdf>
- National Education Policy Center. 2013. "The 'It's Just Not Fair to Expect PowerPoints to Be Based on Evidence' Award." <http://nepc.colorado.edu/bunkum/2013/it%E2%80%99s-just-not-fair-expect-powerpoints-be-based-evidence-award>
- Needell, Claire. 2014. "The Problem Is in the Grading." *New York Times*, March 10. <http://www.nytimes.com/roomfordebate/2014/03/10/can-writing-on-a-college-entrance-exam-be-properly-assessed/with-writing-the-problem-is-in-the-grading>
- Noguchi, Sharon. 2013. "Rocketship Education Founder Danner Leaves Charter School to Start Online-Learning Company." *San Jose Mercury News*, January 31. http://www.mercurynews.com/ci_22493868/rocketship-education-founder-john-danner-leaves-charter-school
- Oriole Lane Elementary (school website). N.d. Accessed April 10, 2014. <http://www.mtsd.k12.wi.us/oriolelane>
- Peacock, John. 2014. "Take Stock of the Earned Income Tax Credit on EITC Awareness Day." *Wisconsin Budget Project*, January 31. <http://www.wisconsinbudgetproject.org/taking-stock-of-the-earned-income-tax-credit-on-eitc-awareness-day>
- Phillips, Arthur. 2014. Interviews with principals of Odyssey Elementary, Lincoln Elementary, Lannon Elementary, Magee Elementary, Shorewood Hills Elementary, Ace Charter Schools, and representative of Marcy Elementary School, February 10–11.
- Pimentel, O. Ricardo. 2011. "Against Workers and Milwaukee." *Milwaukee Journal-Sentinel*, April 19. <http://www.jsonline.com/news/opinion/120239849.html>
- Ploor, Pamela. 2011. *Governor Walker Signs Law Cancelling Milwaukee Paid Sick Leave Ordinance*. Quarles & Brady, LLP. http://www.quarles.com/Milwaukee_paid_sick_leave_ordinance_law_2011
- Programme for International Student Assessment (PISA). 2012. *PISA 2012 Results*. <http://www.oecd.org/pisa/keyfindings/pisa-2012-results.htm>
- Rhoades, Kathleen, and George Madaus. 2003. *Errors in Standardized Tests: A Systemic Problem*. National Board on Educational Testing and Public Policy. <http://www.bc.edu/research/nbetpp/statements/M1N4.pdf>
- Rich, Motoko. 2013. "NewSchools Fund Attracts More Capital." *New York Times*, April 30. http://www.nytimes.com/2013/05/01/education/newschools-venture-fund-links-with-rethink-education.html?_r=1&
- Rich, Motoko. 2014. "Intensive Small-Group Tutoring and Counseling Helps Struggling Students." *New York Times*, January 26. <http://www.nytimes.com/2014/01/27/education/intensive-tutoring-and-counseling-found-to-help-struggling-teenagers.html>
- Richards, Erin. 2011. "MMAC Pushes Plan to Close Education Gap in Milwaukee." *Milwaukee Sentinel-Journal*, November 7. <http://www.jsonline.com/news/education/mmac-pushes-plan-to-close-education-gap-in-milwaukee-v42usqa-133415153.html>
- Richards, Erin. 2013a. "Rocketship Pushes to Enter Milwaukee School Orbit." *Milwaukee Sentinel-Journal*, July 13. http://www.washingtonpost.com/local/education/is-a-charter-school-chain-called-rocketship-ready-to-soar-across-america/2012/07/29/gJQASrShIX_story.html
- Richards, Erin. 2013b. "Milwaukee Leaders Discuss Splitting Lower-Performing Schools from MPS." *Milwaukee Sentinel-Journal*, August 23. <http://www.jsonline.com/news/education/milwaukee-leaders-discuss-splitting-lowest-performing-schools-from-mps-b9982246z1-220817841.html>

- Richards, Erin. 2013c. "Many Independent Charter Schools Miss Mark on State Report Cards." *Milwaukee Journal Sentinel*, September 23. <http://www.jsonline.com/news/education/many-independent-charter-schools-miss-mark-on-state-report-cards-b99102550z1-224814982.html>
- Richards, Erin, and Kevin Crowe. 2013. "Retirements, Resignations Leave MPS with Evolving Staff." *Milwaukee Sentinel-Journal*, September 15. <http://m.jsonline.com/223797161.htm>
- Richtel, Matt. 2011. "A Silicon Valley School That Doesn't Compute." *New York Times*, October 22. <http://www.nytimes.com/2011/10/23/technology/at-waldorf-school-in-silicon-valley-technology-can-wait.html?pagewanted=all&r=0>
- Rocketship Education. 2009. *Launchpad Discussion*. Board of directors meeting, June 23. <http://www.rsed.org/documents/2009.6Agenda.pdf>
- Rocketship Education. 2011. *Rocketship Milwaukee Public School: Charter Application*. September 9.
- Rocketship Education 2013. *Business Committee Presentation*. April 30. <http://www.stoprocketship.com/wp-content/uploads/2013/09/ExhE-BusinessCommittee2013-April30Final.pdf>
- Rocketship Education. 2014a. *Frequently Asked Questions*. Accessed March 28, 2014. <http://www.rsed.org/faq.cfm#online>
- Rocketship Education. 2014b. *Flex Model Review*, January. http://www.rsed.org/documents/ExhA-2-FlexModelReview_Board2.10.14.pdf
- Rocketship Mateo Sheedy Parent. 2012. Review of Santa Clara County Rocketship Mateo Sheedy Elementary School. *GreatSchools.org*, July 30. Accessed March 30, 2014. <http://www.greatschools.org/california/san-jose/17648-Rocketship-Mateo-Sheedy-Elementary-School/?tab=reviews>
- Rocketship Milwaukee Public School. 2014a. Representative, school tour and interview with the author, February 11.
- Rocketship Milwaukee Public School. 2014b. School representative, telephone interview with the author, March 24.
- Rothstein, Richard. 2013. "Why Children from Lower Socioeconomic Classes, on Average, Have Lower Academic Achievement Than Middle-Class Children," in Prudence Carter and Kevin Welner, eds., *Closing the Opportunity Gap: What America Must Do to Give Every Child an Even Chance*. Oxford University Press, 61–74.
- Rubenstein, Janine Rayford. 2013. "Meet *People's* 2013 Teachers of the Year." *People*, October 18. <http://www.people.com/people/article/0,,20743011,00.html>
- Ruppert, Sandra. 2006. *Critical Evidence: How the Arts Benefit Student Achievement*. National Assembly of State Arts Agencies. <http://www.nasaa-arts.org/Research/Key-Topics/Arts-Education/critical-evidence.pdf>
- Rynas, Stephanie. 2014. Administrator, Waldorf School of the Peninsula. Telephone interview with Jennifer Smith, March 14.
- Sahlberg, Pasi. 2010. *Finnish Lessons: What Can the World Learn from Educational Change in Finland?* New York: Teachers College Press.
- San Francisco Unified School District. 2011. *Denial of Rocketship San Francisco Charter School Petition*. August 10.
- Saulny, Susan. 2006. "U.S. Gives Charter Schools a Big Push in New Orleans." *New York Times*, June 13. http://www.nytimes.com/2006/06/13/us/13charter.html?_r=0

School Digger. 2014. *Wisconsin Elementary School Rankings, 2012-13*. <https://www.schooldigger.com/go/WI/schoolrank.aspx>

Schultze, Steve. 2014. "Officials: Bill Barring Local Wage Laws Would Cost Some Workers." *Milwaukee Journal-Sentinel*, February 12. <http://m.jsonline.com/more/news/milwaukee/245215551.htm>

Shearer, Michele. 2011. Quoted in Valerie Strauss, "2011 Teacher of the Year Talks About Reform and More." *Washington Post*, May 2. http://www.washingtonpost.com/blogs/answer-sheet/post/2011-teacher-of-the-year-talks-about-reform-and-more/2011/05/02/AFFN4ocF_blog.html

Simon, Stephanie. 2014. "For Right, Common Core Fight Prelude to Bigger Agenda." *Politico*, January 7. <http://www.politico.com/story/2014/01/common-core-conservatives-education-101796.html>

Smith, Ester. 2006. *Student Learning Through Wisconsin School Library Media Centers: Library Media Specialist Survey Report*. EGS Research and Consulting, report produced for Wisconsin Department of Instruction. <http://imt.dpi.wi.gov/files/imt/pdf/finallmssurvey06.pdf>

Smith, Fran. 2009. "Why Arts Education is Crucial, and Who's Doing It Best." *Edutopia: What Works in Education*, January 28. <http://www.edutopia.org/arts-music-curriculum-child-development>

Smith, Jennifer. 2014. Telephone interviews with representatives of Oriole Lane and Stormonth elementary schools. January.

Smith, Philip, Alex Molnar, and John Zahorik. 2003. "Class-Size Reduction: A Fresh Look at the Data." *Educational Leadership*, September. <http://nepc.colorado.edu/share/1/265>

Spielman, Fran. 2011. "Rahm Emanuel to Send His 3 Kids to Private School This Fall." *Chicago Sun Times*, July 21. www.suntimes.com/news/education/6629400-418/emanuel-to-send-his-3-kids-to-private-school-this-fall.html

State of Wisconsin. 2013a. *2013 Wisconsin Act 20*. Enacted June 30. <https://docs.legis.wisconsin.gov/2013/related/acts/20.pdf>

State of Wisconsin. 2013b. *Senate Substitute Amendment 1, to Senate Bill 76*. 2013–2014 Legislature, October 1. https://docs.legis.wisconsin.gov/2013/related/amendments/sb76/ssa1_sb76.pdf

State of Wisconsin 2014a. *Senate Substitute Amendment to Senate Bill 286, Preliminary Draft – Not Ready for Introduction*. January 28. <http://millermeps.files.wordpress.com/2014/01/accountibility-bill.pdf>

State of Wisconsin. 2014b. *Assembly Substitute Amendment 1, to Assembly Bill 379*. 2013–2014 Legislature, February 10. http://docs.legis.wi.gov/2013/related/amendments/ab379/asa1_ab379.pdf

State of Wisconsin Department of Public Instruction. 2012. *Enrollment and Participation Report*. October. http://fns.dpi.wi.gov/fns_progstat

State of Wisconsin Department of Public Instruction. 2013. *District and School Report Cards*. Accessed March 26, 2014. <https://apps2.dpi.wi.gov/sdpr/spr.action>

State of Wisconsin Department of Public Instruction. 2014a. "Enrollment by Primary Disability, All Students, Wisconsin, 2012-13." Wisconsin Information Network for Successful Schools. <http://data.dpi.state.wi.us/data/DisabilEnroll.aspx?GraphFile=DISABILITIES&SCounty=47&SAthleticConf=45&SCESA=05&SupDwnld=1>

State of Wisconsin Department of Public Instruction. 2014b. *District and School Report Cards*. Accessed March 17. <http://reportcards.dpi.wi.gov>

State of Wisconsin Department of Public Instruction. 2014c. *Student Achievement Guarantee in Education (SAGE) Program*. Accessed April 1. <http://sage.dpi.wi.gov>

State Policy Network. n.d. *Directory*. Accessed March 29, 2014. <http://www.spn.org/directory>

Stein, Jason. 2013. "Bill Would Place New Standards and Ratings on Public and Voucher Schools." *Milwaukee Journal Sentinel*, August 14. <http://www.jsonline.com/news/statepolitics/bill-would-place-new-standards-and-ratings-on-public-and-voucher-schools-b9975949z1-219616141.html>

Stormonth Elementary School (school website). N.d. Accessed April 10, 2014. <http://www.foxbay.k12.wi.us/els>

Strauss, Valerie. 2013. "Seattle Teachers Boycotting Test Score a Victory." *Washington Post*, May 16. <http://www.washingtonpost.com/blogs/answer-sheet/wp/2013/05/16/seattle-teachers-boycotting-test-score-a-victory>

Strauss, Valerie. 2014. "Netflix's Reed Hastings Has a Big Idea: Kill Elected School Boards." *Washington Post*, March 14. <http://www.washingtonpost.com/blogs/answer-sheet/wp/2014/03/14/netflixs-reed-hastings-has-a-big-idea-kill-elected-school-boards>

Taylor, Adam. 2012. "Why Finland's Unorthodox Education System Is the Best in the World." *Business Insider*, November 27. <http://www.businessinsider.com/finlands-education-system-best-in-world-2012-11>

Teach for America. 2014. *Graduate School and Employer Partnerships*. Accessed March 25. <http://www.teachforamerica.org/why-teach-for-america/compensation-and-benefits/graduate-school-and-employer-partnerships>

Tienken, Christopher, and Yon Zhao. 2013. "How Common Standards and Standardized Testing Widen the Opportunity Gap," in Prudence Carter and Kevin Welner, eds., *Closing the Opportunity Gap: What America Must Do to Give Every Child an Even Chance*. Oxford University Press, 111–122.

U.S. Census Bureau. 2012. Small Area Income and Poverty Estimates, Wisconsin 2012. http://www.census.gov/did/www/saipel/data/interactive/#view=SchoolDistricts&utilBtn=&yLB=0&stLB=0&cLB=0&dLB=0&gLB=0&usSts_cbSelected=false&usTot_cbSelected=true&stateTot_cbSelected=true&pLB=0&multiYearSelected=false&multiYearAlertFlag=false&prStateFlag=false&invalidSDYearsFlag=false

U.S. Chamber of Commerce. 2013. *School Governance Guide*. <http://d27vj430nutdmd.cloudfront.net/29961/188586/522bb01a521bba611c2e1d7d8a1b870e93be9783.1.pdf>

U.S. Chamber of Commerce. n.d. *Breaking the Monopoly on Mediocrity*. Accessed April 10, 2014. <http://education.uschamber.com/conference/breaking-monopoly-mediocrity>

U.S. Department of Education. 2013. *Elementary School Mathematics Intervention Report: DreamBox Learning*. Institute of Education Sciences, What Works Clearinghouse. http://ies.ed.gov/ncee/wwc/pdf/intervention_reports/wwc_dreambox_121013.pdf

U.S. Department of Education. 2014. *Elementary School Mathematics Intervention Report: DreamBox Learning, Updated*. Institute of Education Sciences, What Works Clearinghouse. http://ies.ed.gov/ncee/wwc/pdf/intervention_reports/wwc_dreambox_121013.pdf

Wang, Haiwen, and Katrina Woodworth. 2011. *Evaluation of Rocketship Education's Use of DreamBox Learning's Online Mathematics Program*. SRI International. http://www-static.dreambox.com/wp-content/uploads/downloads/pdf/DreamBox_Results_from_SRI_Rocketship_Evaluation.pdf

Wethington, H.R., R.A. Hahn, D.S. Fuqua-Whitley, T.A. Sipe, A.E. Crosby, R.L. Johnson, A.M. Liberman, E. Moscicki, L.N. Price, F.K. Tuma, G. Kalra, S.K. Chattopadhyay. 2008. "The Effectiveness of Interventions to Reduce Psychological Harm from Traumatic Events among Children and Adolescents: A Systematic Review." *American Journal of Preventive Medicine*, vol. 35, no. 3: 287–313. <http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0026074>

Wheeler News Service. 2014. "School Accountability Bill Approved by Senate Committee." WTAQ News, February 13. <http://wtaq.com/news/articles/2014/feb/13/school-accountability-bill-approved-by-senate-committee>

Wilson, Stephanie, and Lynn Liao. 2014. "Continuous Innovation in Blended Learning: Theory and Reality." PowerPoint presentation to California Charter Schools Association, March 4. http://www.charterconference.org/uploads/CACHARTER2014/HANDOUTS/KEY_7295460/CCSAinnovationv5.pdf

Wisconsin Government Accountability Board. 2014a. *Assembly Bill 549*. Eye on Lobbying. Accessed March 29. <https://lobbying.wi.gov/What/BillInformation/2013REG/Information/10805>

Wisconsin Government Accountability Board. 2014b. *Assembly Bill 379*. 2013–2014 Legislative Session, Eye on Lobbying. Accessed March 29. <https://lobbying.wi.gov/What/BillInformation/2013REG/Information/10425>

Wisconsin Government Accountability Board. 2014c. *Metropolitan Milwaukee Association of Commerce*. 2013–2014 Legislative Session, Eye on Lobbying. Accessed March 6. <https://lobbying.wi.gov/Who/PrincipalInformation/2013REG/Information/5486?tab=Profile>

Wisconsin Legislature. 2013. *2013 Assembly Bill 549*. 2013–2014 Legislature, December 9. <http://docs.legis.wisconsin.gov/2013/related/proposals/ab549>

Wisconsin Senate. 2013. *Record of Committee Proceedings*. Committee on Education, October 3. <http://docs.legis.wisconsin.gov/2013/related/records/senate/education/1007444>

Wittkopf, Scott. 2013. *Wisconsin Budget Policy and Poverty in Education 2013: A Study of the Impact of School Funding on Educational Opportunity*. Forward Institute, May 15. <http://forwardinstitute.files.wordpress.com/2013/05/wisconsin-budget-policy-and-poverty-in-education-2013.pdf>

Zahorik, John, Alex Molnar, and Philip Smith. 2003. *SAGE Advice: Research on Teaching in Reduced-Size Classes*. Education Policy Studies Laboratory, Arizona State University. <http://nepc.colorado.edu/publication/sage-advice-research-teaching-reduced-size-classes>