

07-06-2022

Exalted and Assaulted: Conflicted Sentiments about the Teaching Profession in
**Exalted and Assaulted: Conflicted Sentiments about the Profession of Classroom
Teaching in America**

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Citation

Addonizio, Michael F. 2022. "Exalted and Assaulted: Conflicted Sentiments about the Teaching Profession." In Exalted and Assaulted: Conflicted Sentiments about the Profession of Classroom Teaching in America, Michael F. Addonizio. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research, pp. 1-22. <https://doi.org/10.17848/9780880996846>
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2022

W.E. Upjohn Institute for Employment Research
Kalamazoo, Michigan

Library of Congress Cataloging-in-Publication Data

Name: Addonizio, Michael F., author.

Title: Exalted and assaulted : conflicted sentiments about the profession of classroom teaching in America / Michael F Addonizio.

Description: Kalamazoo, Michigan : W.E. Upjohn Institute for Employment Research, [2022] | Includes bibliographical references and index. | Summary: "This book examines the recent history and current state of the K–12 public school teaching profession in the U.S. Topics include the workings of teacher labor markets, teacher unions and collective bargaining, teacher evaluation, and the effects of the charter school movement on the teaching profession. Impacts of the COVID-19 pandemic on the teaching profession are discussed in an epilogue"—Provided by publisher.

Identifiers: LCCN 2021055207 (print) | LCCN 2021055208 (ebook) | ISBN 9780880996839 (Paperback : alk. paper) | ISBN 9780880996846 (eBook)

Subjects: LCSH: Teaching—United States.

Classification: LCC LB1025.3 .A3754 2022 (print) | LCC LB1025.3 (ebook) | DDC 371.1020973—dc23/eng/20220110

LC record available at <https://lccn.loc.gov/2021055207>

LC ebook record available at <https://lccn.loc.gov/2021055208>

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Kalamazoo, Michigan 49007-4686

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Cover design by Carol A. S. Derks.

Index prepared by Diane Worden.

Printed in the United States of America.

Printed on recycled paper.

To my grandchildren, James and Eleanor. And to all children
who are enriched by their public schools and their teachers.

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Exalted and Assaulted

Conflicted Sentiments about the Teaching Profession

It is the supreme art of the teacher to awaken joy in creative expression and knowledge. —Albert Einstein

Public schools and classroom teachers both shape and reflect our societal values. They are both foundational institutions of civil society and barometers of the condition of civic life. They are considered both vital sources of equal opportunity in American life and impediments to that same fundamental goal. The teaching profession in particular has long seemed to foster a certain ambivalence in the minds of the American public. The profession itself is generally exalted as being among the highest of callings and the “great equalizer” envisioned by Horace Mann, while those who practice are often maligned as less than our best and brightest and not truly professional, in terms of not only their knowledge base and skill level but their dedication, which is often seen by critics as directed more toward job security than toward their students and their craft. The sociologist Dan Lortie, in his 1975 classic work *Schoolteacher*, succinctly captures this uniquely ambivalent public perception of the profession:

Teaching seems to have more than its share of status anomalies. It is honored and disdained, praised as “dedicated service” and lampooned as “easy work.” It is permeated with the rhetoric of professionalism, yet features incomes below those earned by workers with considerably less education. It is middle-class work in which more and more participants use bargaining strategies developed by wage-earners in factories. . . . Teaching, from its inception in America, has occupied a special but shadowed social standing. The services performed by teachers have usually been seen as above the run of everyday work, and the occupation has had the aura of a special mission honored by society. But social ambiguity has stalled those who undertook the mission, for the real regard shown those who taught has never matched the professed regard. (Lortie 1975, p. 10)

This conflicted view held by the American public of the teachers in their public schools has seemingly reached new levels of intensity since Lortie's landmark study. Americans' faith in education as a means to advance our society has never wavered, and our collective view of the educational imperative is stronger than ever as information expands exponentially, technology advances at an accelerating pace, and economic inequality widens. At the same time, while mounting evidence points to the classroom teacher as the most important resource in our public schools, criticism of public school teachers has reached new heights, with parent groups, civil rights activists, Wall Street investors, and political leaders of both major parties forming an unprecedented alliance against teacher unions and their "industrial style" job protections.¹

Much of the American public has grown increasingly resentful of the teaching profession, which remains highly unionized during an era when job protections and defined-benefit retirement systems are now nearly nonexistent in the private sector. This growing resentment is fueled in large part by the widely shared view that the profession does little to deal with poor performers and, indeed, is generally hostile to any such efforts. As education scholar David Cohen observes, "With the exception of the National Board for Professional Teaching Standards (NBPTS), no organization of teachers has set standards of quality practice, devised means to discern whether they have been met, and used those means to regulate quality" (Cohen 2011, p. 59).

This popular critique of the teaching profession has given rise to policymakers' growing insistence on closely assessing individual teacher performance in order to weed out the union laggards and open the profession to nonunion members and graduates of nontraditional, nonuniversity teacher preparation programs. For example, the Every Student Succeeds Act (ESSA), signed by President Obama on December 25, 2015, provides for the creation of "teacher preparation academies" such as those funded by venture philanthropists, including Eli Broad and Bill Gates, and relaxes standards for teacher education programs that prepare teachers for high-poverty schools. And this is merely the latest in a long line of initiatives aimed at broadening access to the teaching profession and diluting union influence.

These efforts have taken a toll on both teacher morale and the profession's appeal to potential entrants, whether new college gradu-

ates or midcareer professionals. For example, a recent MetLife survey of teachers found that between 2008 and 2012, the proportion who reported being “very satisfied” with their current job plunged from 62 percent to 39 percent, the lowest in a quarter century (Goldstein 2014, p. 3). And a survey of a nationally representative sample of 3,328 public school teachers by the nonprofit Center on Education Policy found that about half of these teachers would leave the profession if they could get a higher-paying job. Furthermore, fully 46 percent of teachers cited state or district policies that hamper their teaching as being among their biggest challenges—double the percentage of respondents who cited classroom conditions, like large classes or economically disadvantaged students, as being among their greatest challenges. According to the center’s report, most teachers feel excluded from education policy discussions at all levels of government (Wise 2016). At a time when our public school classrooms will need new infusions of talent as teachers of the baby boom generation retire and schools seek to restore teaching positions lost in the Great Recession, the embattled profession of classroom teaching appears much less appealing to aspiring or midcareer professionals than ever before.

Indeed, one could argue that the profession is in crisis. Enrollment in teacher preparation programs has declined sharply in recent years, falling from 691,000 in 2009 to 451,000 in 2014, a drop of 35 percent (Sutcher, Darling-Hammond, and Carver-Thomas 2016). And turnover in the profession is rampant, with between 40 and 50 percent of new teachers leaving the profession within five years. Furthermore, many mid- and late-career teachers who have honed their skills over years in the classroom are opting to leave the profession short of retirement, raising the prospect of critical teacher shortages in the years to come. A 2016 study by the Learning Policy Institute reveals that retirements generally constitute less than one-third of annual teaching exits. Of those who leave teaching voluntarily, most cite job dissatisfaction as a key factor in their decision. The study estimates a teacher shortage of approximately 64,000 teachers in the 2015–2016 school year, rising to about 112,000 by 2018 and remaining close to that level thereafter (*ibid.*).

A High Turnover Profession

As Lortie (1975) observes, teaching was institutionalized as high-turnover work during the nineteenth century, often requiring annual infusions of many new members to meet classroom demands. The profession continues in that vein to the present day. With an annual attrition rate of nearly 8 percent, the U.S. teaching workforce “continues to be a leaky bucket” (Sutcher, Darling-Hammond, and Carver-Thomas 2016, p. 2). It is because of this high turnover and the sheer size of the needed teacher workforce (five times as many people teach as practice either medicine or law in the United States) that the profession will never approach the elite status enjoyed by doctors or lawyers. As John Dewey observed in 1895, “Education is, and forever will be, in the hands of ordinary men and women” (Archambault 1964, p. 199). At the same time, no one can deny the importance of the profession for society’s pursuit of democratic values and economic progress. The work of the classroom teacher is critically important to our social and economic well-being, and yet, teachers find themselves constantly having to navigate tensions between their low professional status, accountability measures imposed from outside the profession, and the autonomy and working conditions necessary for their effectiveness and success.

A Nation at Risk

Arguably the most impactful education report in U.S. history,² *A Nation at Risk* was authored by the National Commission on Excellence in Education, an 18-member group appointed by Terrel H. Bell, President Ronald Reagan’s Secretary of Education. Completed in 18 months and released in April 1983, in the depths of a severe economic recession, the 36-page report created an immediate sensation with its blunt opening statement:

Our Nation is at risk. Our once unchallenged preeminence in commerce, industry, science, and technological innovation is being overtaken by competitors throughout the world. . . . The educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and a people. . . . If an unfriendly power had attempted to impose on America the mediocre educational performance that exists today, we might well have viewed it as an act of war. As it stands,

we have allowed this to happen to ourselves. . . . We have, in effect, been committing an act of unthinking, unilateral, educational disarmament. (National Commission on Excellence in Education 1983, p. 5)

The report cited declining SAT scores from 1963 to 1980, falling scores on standardized achievement tests, poor performance on international assessments, the increase in remedial math courses across college campuses, and the incidence of functional illiteracy among youth and young adults as evidence of U.S. educational decline—a decline that commission members asserted would impose substantial social and economic costs on the nation.

Regarding teachers, the commission report argued that American teachers were academically weak, drawn from the “bottom quarter” of college graduating classes, and particularly weak in mathematics and science. To improve teacher quality, the commission recommended higher base salaries, merit pay for superior performance, and more stringent evaluation systems for purposes of earning and retaining tenure. The report also called for new avenues into the teaching profession whereby new college graduates and career changers who had not studied education could obtain “alternative” teaching credentials in relatively short order.

Publication of *A Nation at Risk* set off what many have called the first wave of comprehensive public school reform across the states, focusing on such initiatives as boosting high school graduation requirements, making standardized achievement tests more demanding, and increasing the amount of instructional time in schools. Among the report’s many recommendations, two resonated particularly strongly with the press and the public: strengthened high school graduation requirements and higher standards for entrance into the teaching profession. Regarding the latter, the commission reasoned that those entering the profession should be expected to meet high educational standards relating to both teaching aptitude and competence in an academic discipline. Teacher compensation should be increased and should be “professionally competitive, market-sensitive, and performance based.” Decisions regarding salary, retention, tenure, and promotion “should be tied to an effective evaluation system that includes peer review so that superior teachers can be rewarded, average ones encouraged, and poor ones either improved or terminated” (National Commission on Excellence

in Education 1983, p. 30). The contentious issue of tying individual teacher evaluations to student scores on standardized tests is not raised in the report. The topic began to emerge publicly in the early 1980s but did not assume center stage until decades later during the Obama administration. It remains a particularly contentious issue for the teaching profession, with neither policy nor practice enjoying much support in the research literature.

The states respond

The states' responses to the report were most dramatic with respect to high school curriculum and graduation requirements, as virtually all states increased requirements in academic subjects. However, the report also inspired changes in teacher compensation. When *A Nation at Risk* was released in 1983, teachers were rarely paid or promoted on the basis of performance, and there were few career advancement opportunities that did not require teachers to leave the classroom for administration. By the early 1990s, however, dozens of states and scores of school systems had established career ladders, mentorships, and other leadership opportunities that offered teachers increased status, higher salaries, and new professional challenges without requiring that they abandon the classroom.

New avenues into the profession

Policymakers responded to this call as well, creating alternative paths to certification in many states. The results of this expanded access to the profession, however, have been generally disappointing. Rather than stabilizing and strengthening school faculties across the states, graduates of these streamlined programs, which provide candidates with less pedagogical training than do traditional, university-based programs, have suffered from higher rates of annual turnover than regular pathway teachers. And while alternatively prepared teachers are disproportionately represented in hard-to-staff fields such as math and science and in schools serving primarily students of color, their high attrition rates have disrupted student learning and raised school costs. I examine the impacts of these nontraditional teacher preparation programs on the composition and mobility of the teacher labor force in our discussion of teacher labor markets.

A Nation at Risk produced little substantive improvement in measured student achievement because the reforms were both cosmetic and “top down”—that is, imposed on educators by politicians and bureaucrats and overly focused on school inputs (e.g., longer school day or year, increased graduation requirements, etc.) and basic skills. Many education leaders and scholars assert that these reforms failed to improve classroom instruction because teachers were excluded from the reform process. More specifically, the reformers’ calls for a more rigorous academic curriculum, including increased coursework in English, math, science, history, and foreign languages, to be taught to a much broader student body, stood little chance of having a discernible impact on classroom teaching and learning without much more input from classroom teachers as to teacher preparation, curriculum content, pedagogy, and teacher supports. Indeed, policy has gone in the opposite direction, with new teacher evaluation schemes based on student test scores being designed and adopted over strong objections from classroom teachers as well as the education research community.

A flawed economic analysis

The education reforms triggered by *A Nation at Risk* were focused on the perceived needs of business and industry, emphasizing math, science, and technology-related curricula. This emphasis stemmed from the report’s unmistakable linkage of school reform with the nation’s economic growth.³ This perceived linkage between economic prosperity and the quality of the public schools is most clearly stated in the report’s section titled “The Risk”:

The world is indeed one global village. We live among determined, well-educated, and strongly motivated competitors. We compete with them for international standing and markets, not only with products but also with the ideas of our laboratories and neighborhood workshops. America’s position in the world may once have been reasonably secure with only a few exceptionally well-trained men and women. It is no longer.

Knowledge, learning, information, and skilled intelligence are the new raw materials of international commerce and are today spreading throughout the world as vigorously as miracle drugs, synthetic fertilizers, and blue jeans did earlier. If only to keep and improve on the slim competitive edge we still retain in world markets, we

must dedicate ourselves to the reform of our educational system.
(National Commission on Excellence in Education 1983, pp. 6–7)

This alleged causal relationship between the anemic productivity growth of the U.S. economy in the late 1970s and early 1980s and the quality of the nation's public schools, while clearly the source of much of the report's public acclaim, was almost certainly mistaken. This flaw in the commission's theory became readily apparent a decade later. By 1994, the United States had become the most competitive economy in the world. Unemployment had fallen below 5.5 percent (down from the recession's peak level of 10.8 percent in December 1982), inflation was a mere 2.7 percent (down from 13.9 percent in January 1980), and productivity was growing at its fastest rate in more than two decades. Educational outcomes in U.S. public schools, on the other hand, had changed little between 1980 and 1994, years when the nation embarked on the longest peacetime economic expansion in its history.⁴

Certainly, as the workforce becomes more educated and work becomes more capital- and skill-intensive, productivity accelerates and the economy grows. But history has demonstrated that changes in the macroeconomy occur much too quickly to be explained by the quality of such a slow-to-change institution as our public schools. Most workers in the economy who exert the greatest impact on current levels of productivity were educated decades earlier. The lag between changes in school quality and effects on productivity and economic growth appears to be much longer than implied in *A Nation at Risk*. Nonetheless, despite its flawed analysis of the impact of school quality on economic growth, publication of *A Nation at Risk* was a landmark event in the history of U.S. public education. The report ushered in an unbroken period of intense debate, scrutiny, and reform of public schools that continues unabated to the present day.

The National Board for Professional Teaching Standards

In 1986, three years after publication of *A Nation at Risk*, the Carnegie Task Force on Teaching as a Profession helped establish a National Board for Professional Teaching Standards (NBPTS), whose mission is to “establish high and rigorous standards for what teachers should know and be able to do, [and] to certify teachers who meet these standards” (NBPTS 1989, p. 1). The NBPTS began with a 63-member board of

directors, two-thirds of whom were teachers. Board members were tasked with establishing a voluntary process by which teachers could become certified through demonstrating mastery of an ambitious set of national standards.

The model adopted by the National Board is similar to that of other professions, such as medicine and law, in which accomplished members of the profession play a major role in setting standards for entry and advancement in the profession. After establishing the standards, the NBPTS worked with measurement experts to design the performance-based assessments that teachers would complete to earn certification. The first National Board–certified teachers (NBCTs) earned their credentials in 1994. By the end of the 2020–2021 school year, 128,500 teachers had earned National Board certification, including more than 36,500 in North Carolina and Florida combined (NBPTS 2021a,b).

The NBPTS awards certificates in 25 areas across 16 different subjects and spanning pre-K through grade 12. The assessment consists of a multimedia portfolio that demonstrates knowledge of content and pedagogy and evidence of student learning. The portfolio includes videotaped samples of teaching practice, samples of student work, and commentaries that explain how the evidence provided addresses each standard being assessed. Candidates also complete an online assessment. The entire process takes at least one year and costs \$2,500. Candidates must hold a valid teaching license and have at least three years of teaching experience. Since the program’s inception, about 30 states and some local districts have provided incentives and supports for teachers seeking National Board certification. Examples include full or partial subsidies for program costs, professional development resources, and increased compensation for NBCTs, with additional stipends for such teachers who work in high-poverty or low-performing schools.

The general effectiveness of NBCTs has been confirmed by solid research. In 2008, the National Research Council reviewed 25 rigorous studies and concluded that students taught by NBCTs had higher achievement test gains than students taught by comparable non-NBCTs, although the differences varied by state (National Research Council 2008). Some studies have found greater positive impacts for students of color and students from low-income families (Cannata et al. 2010; Harris and Sass 2009).

The Changing Landscape of Public School Teaching

Much has changed over the past two decades for the profession of public school teaching. The recent emphasis on teacher accountability based on student test scores, the creation of new avenues into the teaching profession (often involving little or no pedagogical instruction or clinical experience), the rise of privately run charter schools, and falling real financial support for K–12 education have changed the U.S. public education landscape and significantly altered the professional lives and working conditions of our classroom teachers. And these reforms often exert mutually reinforcing effects on the work of teachers, constricting their autonomy, discretion, and creativity and generally diminishing the profession’s appeal for both new college graduates and career changers.

Consider, for example, the jobs of teachers in the growing number of charter schools run by charter management organizations (CMOs), private, nonprofit organizations largely motivated by the worthy goal of narrowing the achievement gap as defined by race or class. Unlike their traditional public school counterparts, teachers working in CMO-run public schools are at-will employees who work longer school days and years for relatively low compensation, must be available to their students evenings and weekends by cell phone for help with homework and other matters, and generally lack experienced colleagues to whom they can turn for counsel and support. Similarly, teachers in charter schools managed by for-profit educational management organizations (EMOs) lack the job protections afforded by union membership. Moreover, their work is further subject to management’s efforts to cut costs by substituting capital for labor and replacing in-person teaching with online programs.

Full-time virtual schools

EMOs have been far more inclined than CMOs to utilize online instruction as a substitute for, rather than a complement to, traditional classroom teachers. This low-cost, technology-intensive approach to K–12 instruction by means of full-time virtual schools, also referred to as “cyber schools” or “online schools,” has grown rapidly in recent years. The most notable example of this form of educational privatization is K12 Inc., a Virginia-based K–12 company founded in 1999

by one-time “junk bond king” Michael Milken and hedge fund manager Ronald Packard. K12 Inc. is the largest for-profit provider of pre-collegiate online learning and one of the few publicly traded companies in the K–12 marketplace. A second prominent example of K–12 online schooling is Connections Academy, a subsidiary of the publishing giant Pearson. Founded in 2001 and headquartered in Baltimore, Connections Academy enrolled more than 60,000 students across 29 virtual public schools in 25 states for the 2014–2015 school year.

These full-time virtual schools serve several purposes. Elite athletes seeking flexible schedules and academic workloads find these schools convenient, as do students who stay home for health or other reasons. More generally, cyber schools facilitate school choice, generally enrolling students from across local school districts within a state. Through advocacy and lobbying efforts by national organizations and prominent providers, 30 states and the District of Columbia have created cyber schools (Watson et al. 2011). Miron and Urschel (2012) report that by 2012, nearly a quarter of a million students were enrolled in full-time virtual schools.

This low-cost, technology-intensive form of educational privatization has grown rapidly in recent years while largely avoiding the glare of the public spotlight (save for some press reports of poor academic performance, financial mismanagement, and, occasionally, outright fraud).⁵ In these cyber schools, the teacher’s role is greatly circumscribed by management, often reduced to guiding students through a scripted online experience narrowly designed to prepare students for standardized reading and math assessments. This is not surprising for EMO management, whose objective is profit maximization, not the students’ intellectual, emotional, and moral growth, aims that have historically been at the heart of good teaching.

This wide gulf between management’s and faculty’s missions has resulted in rampant teacher turnover and low-quality instruction, an entirely predictable outcome that is baked into the EMO business model, but an outcome that is anathema to the teaching profession and one that takes its toll on members. In his landmark study of the teaching profession, Lortie sought to identify occupational characteristics that attract people to teaching. Interviewing teachers in five towns in the Boston metropolitan area, Lortie asked them to describe the occupa-

tion's appeal, what made it more attractive than alternatives they seriously considered. Two themes that emerged from these intensive interviews were service and interpersonal exchange. Lortie concluded:

Teachers are involved with knowledge and its diffusion; their work has also been described as an “art” requiring special sensitivity and personal creativity. Involvement with knowledge and the call for creativity could quite logically serve as foci for attraction to teaching. It is therefore interesting that neither of these aspects of the role receives as much attention as the interpersonal.

Teachers have been perceived as performing a special mission in our society, and we see the continuation of that conception among those engaged in the work today. The idea that teaching is a valuable service of special moral worth is a theme in the talk of Five Towns teachers. (Lortie 1975, p. 28)

The importance that workers attach to belief in their mission cannot be overstated. As economists George Akerlof and Rachel Kranton observe, “Workers who identify with the mission of their leaders dedicate themselves selflessly to their work, whereas their opposites do the bare minimum of what is required and typically look elsewhere for employment” (Akerlof and Kranton 2010). This conflict of mission and vision between teacher and corporate management in an EMO-run cyber school is articulated in an online post by Darcy Bedortha, a teacher who resigned from K12 Inc. in 2013. “I became a teacher because I am an advocate for youth and social justice,” Bedortha wrote. “However, this purpose was hard to fulfill working in a K12 Inc. school. With the kind of technology, systems and process management needed to keep the enrollment machine running (and the machine is priority), there is never much time to actually teach.

“I found it impossible to meet the learning needs of my students in that situation” (Bedortha 2014).

Full-time virtual schools may be an effective alternative for some students with a particular learning style and strong support at home, but research evidence provides little support for the widespread adoption advocated by special interests, usually those who would profit greatly. Whitney Tilson, a hedge fund manager and founding member of Teach for America, provides a telling perspective: “When K12 was small, it was mostly serving kids like mine, with at least one—if not both—college-educated parents working in the home with children. In those

cases, it really works” (Molnar 2013, pp. 3–4). The research literature on cyber schools, however, cautions strongly against their more general use. Researchers Gary Miron and Jessica Urschel studied K–12 schools and reviewed the literature. They observe that “studies on full-time virtual schools in the charter sector have all found the performance of these schools to be lagging substantially behind brick-and-mortar schools and district schools. The new findings . . . on mean performance on state reading and math assessments, and on-time graduation rates, all found that K12 schools were performing at levels far below those of the states in which they operate” (Miron and Urschel 2012). Similarly, a 2016 report by the National Association of Charter School Authorizers and 50CAN, a national charter lobbying group, found that full-time cyber students made no significant gains in math and less than half the gains in reading compared to their traditional public school peers (National Alliance for Public Charter Schools 2016).

Teaching, Technology, and Baumol’s Cost Disease

Broad-based efforts by EMOs, CMOs, and other educational entrepreneurs to cut school operating costs by substituting capital for labor have generally failed. Whether pursued by means of cyber schools or more broadly with the proliferation of smartboards, tablets, laptops, or other devices, these interventions have resulted not in lower costs, but lower quality—that is, an inferior educational service.⁶ While technology can be an effective complement to in-person teaching, it is rarely an effective substitute. Kentaro Toyama, a professor at the University of Michigan’s School of Information, has formulated what he terms technology’s “Law of Amplification,” writes Nicholas Kardaras: “Technology could help education where it’s already doing well, but it does little for mediocre educational systems.” Worse, in struggling schools, Toyama says, it “can cause outright harm” (Kardaras 2016, p. 5).

The chronic failure of efforts to substitute capital for labor in the classroom, documented in a large and growing literature, can be understood with an elegant theory posed decades ago by the economist William Baumol to explain stagnant productivity growth across certain sectors of the economy. This theory, which has come to be known as “Baumol’s cost disease,” holds that costs are destined to rise in certain sectors of the economy, including education, health care, and the per-

forming arts, because it is difficult to reduce the labor required to supply these services. First enunciated in 1966, the idea is restated by Baumol (2012) in his book *The Cost Disease: Why Computers Get Cheaper and Health Care Doesn't*:

Since the Industrial Revolution, labor-saving productivity improvements have been occurring at an unprecedented pace in most manufacturing activities, reducing the cost of making these products even as workers' wages have risen. In the personal services industries, meanwhile, automation is not always possible, and labor-saving productivity improvements occur at a rate well below average for the economy. As a result, costs in the personal services industries move ever upward at a much faster rate than the rate of inflation.⁷
(p. xvii)

Our economy will always have a “low productivity” sector, where effective services depend primarily on skilled workers whose effectiveness can be enhanced by technology but whose skills, talent, wisdom, and judgment cannot be displaced by it. Baumol points to education and the performing arts as prime examples of industries that must absorb rising labor costs because they are limited in their ability to substitute capital for labor. For Baumol, education is more akin to a string quartet than an auto factory. Just as the quartet will always require four musicians, the successful classroom will always need a teacher. This should not be cause for concern or efforts to curtail the supply of labor-intensive services like education, the performing arts, or health care. Productivity rises across the entire economy, simply more slowly in some industries than others. And as overall productivity rises, so too does the purchasing power of consumers. As Baumol observes, “no matter how painful rising education and medical bills may be, society can afford them and there is no need to deny them to ourselves or to the less affluent members to our society, or indeed to the world. Overall incomes and purchasing power must rise quickly enough to keep these services affordable, despite their persistently rising costs” (Baumol 2012, p. xvii).

As overall productivity rises, even if it rises more slowly in some industries than others, the same or fewer hours of labor will produce more goods and services. Thus, in societies with competitive economies, education, health care, and other labor-intensive services will remain affordable despite their rising cost. And while technology can

often effectively enhance (complement) human performance, wholesale attempts to substitute capital for labor in education and these other services do not lower cost. They lower quality. The centrality of teacher skills and human relationships generally in the educational process is eloquently described by University of California, Berkeley, professor and author David Kirp. “It’s impossible to improve education by doing an end run around inherently complicated and messy human relationships,” Kirp says. “All youngsters need to believe that they have a stake in the future, a goal worth striving for, if they’re going to make it in school. They need a champion, someone who believes in them, and that’s where teachers enter the picture. The most effective approaches foster bonds of caring between teachers and their students” (Kirp 2014, p. SR4).

The power of technology can be effectively harnessed in the classroom only through the unique capabilities of a skilled teacher, including creativity, intuition, empathy, and professional judgment. Technology serves the teacher, not the other way around.

A Dwindling Pipeline, Rising Attrition, and High Turnover

Enrollments in teacher preparation programs across the U.S. have fallen steadily in recent years. Between 2009 and 2014, enrollments in undergraduate and postbaccalaureate teacher preparation programs fell by 35 percent, a drop of nearly 240,000 candidates. And the number of program completers fell by more than 23 percent over the same period (Sutcher, Darling-Hammond, and Carver-Thomas 2016). Interest in the profession has also declined precipitously in recent years. In a 2014 survey of those taking the ACT college entrance exam, a mere 5 percent of respondents expressed interest in a career in education, down 29 percent from 2010 (ACT 2015). And in the 2016 report of an annual survey of college freshmen, a mere 4.2 percent of students cited education as their probable field of study, down from 9.2 percent in 2007 and the lowest proportion of students considering teaching as a profession in 45 years (Eagan et al. 2017).

Just as fewer aspiring professionals are now entering the teaching profession, more are leaving before retirement. For example, attrition rates for first-year teachers rose from 9.8 percent in 1988–1989 to 14.6 percent in 2000–2001, before settling back to 13.1 percent in 2008–2009.

And more than 41 percent of new teachers leave the profession within five years (Perda 2013). Moreover, cast in absolute numbers rather than percentages, our current teacher attrition problem appears even more daunting: following the 1987–1988 school year, about 6,000 first-year teachers left the profession; 20 years later, after the 2007–2008 school year, the number of first-year teachers exiting the profession soared to about 25,000 (Ingersoll, Merrill, and Stuckey 2014).

Why do they leave? Examining the most comprehensive data source on teachers available—the Schools and Staffing Survey (SASS) and its supplement, the Teacher Follow-Up Survey (TFS)—University of Pennsylvania researchers Richard Ingersoll, Lisa Merrill, and Daniel Stuckey found that about 20 percent of the first-year teachers who left following the 2007–2008 school year indicated they had been laid off or terminated. About 35 percent cited personal or family reasons, including health, pregnancy, change of residence, or caring for family members. A slightly higher percentage left teaching to pursue further education or another career. The foremost set of reasons for leaving the teaching profession, cited by more than 45 percent of those leaving (some teachers cited reasons in more than one category), concerned dissatisfaction with their school and working conditions, including salaries, classroom resources, student behavior, accountability measures, opportunities for professional development, input into decision making, and school leadership (Ingersoll, Merrill, and Stuckey 2014). Taken together, these findings depict a profession in flux and increasingly unstable, as the numbers of both those entering and those leaving have been increasing in recent years.

This trend of rising teacher attrition, or teachers leaving the profession, is damaging to teacher development, particularly among novice teachers. As I document in the following chapters, teachers hone their craft through classroom experience. Not only does careful research overwhelmingly confirm dramatic improvement in teachers' effectiveness over the first four or five years of their careers, but growing evidence reveals continued improvement well beyond these formative years (see, for example, Harris and Sass 2011). And this trend of rising attrition is part of a larger problem of teacher turnover, generally defined as the annual change in teachers at a particular school. While some turnover in personnel in any organization is typical and often healthy, high rates of teacher turnover are problematic for several

reasons. First, rapid turnover exacerbates teacher shortages for many schools in hard-to-staff subjects such as math, science, and special education. Furthermore, turnover among minority teachers, who are generally overrepresented in schools serving economically disadvantaged communities, undermines teacher recruitment and efforts to diversify teaching faculties in these struggling schools. Finally, rapid turnover has been found to impair student learning (e.g., Hanushek, Rivkin, and Schiman 2016; Henry and Redding 2018; Ronfeldt, Loeb, and Wyckoff 2013; Sorensen and Ladd 2019).

The Failed Legacy of *A Nation at Risk*

New avenues and requirements for entry into the teaching profession, changes in the teachers' workplace, and reforms of teacher evaluation and compensation systems and career ladders have been instituted across states since publication of the commission report. Indeed, the debate over public school performance and teacher quality in particular has only escalated in the ensuing years. Top-down reforms adopted across state capitals following publication of *A Nation at Risk* produced generally disappointing results. First, tightening high school graduation requirements to include more coursework in mathematics and science merely increased the number of high school dropouts entering the labor force with weak cognitive skills (Hodgkinson 1985, cited in Murnane 1988). Furthermore, states' increased use of standardized tests emphasizing low-level computational skills instead of complex problem solving led to classroom emphasis on scripted drill and practice at the expense of more sophisticated and creative instruction addressing higher-order skills. As education researchers have observed, the "command and control" reforms triggered by this much-heralded federal commission report failed because they circumscribed the discretion and practice of classroom teachers, the very professionals best positioned to effect school improvement (Murnane 1988; Wise 1988).

The regimented and largely counterproductive reforms of the post-*Nation* period were followed by the launch of the choice and charter school movements in the early 1990s. The charter school movement, which began in 1992 with the opening of the nation's first charter school in Minnesota, has been particularly disruptive for the traditionally highly unionized profession of classroom teaching. Numerous pub-

lished studies have documented the low salaries and the diminished fringe and retirement benefits and job protections of charter-school teachers, the vast majority of whom are unorganized (see, for example, Addonizio, Kearney, and Gawlik 2015).

“Top Down” Reform Comes to Washington

Another wave of reform was ushered in with the 2001 reauthorization of the 1965 Elementary and Secondary Education Act (ESEA), commonly known as the No Child Left Behind Act (NCLB). Under NCLB, schools that chronically failed to make “adequate yearly progress” (AYP) were subject to a widening set of reforms and sanctions that included the offer of transfer to another school for families that wanted to, the provision of supplementary educational services outside the normal school day, the replacement of school staff, and the conversion of the school to charter status. Teacher quality was a central focus of this landmark legislation. The law required that by 2006, teachers in schools receiving federal Title I funding be “highly qualified.” Specifically, teachers were required to meet three criteria: 1) be fully certified by the state, 2) hold at least a bachelor’s degree from a four-year institution, and 3) be proficient in the subject(s) they taught.

The drumbeat of reform rose several more decibels in 2009 with Race to the Top (RTT), part of a congressionally approved economic stimulus package that provided more than \$4 billion in grants to states and school districts that adopted reforms of teacher accountability and teacher tenure rules and generally freed schools from job-security and working-condition policies traditionally found in teachers’ collective bargaining agreements. The robust state and local responses to these incentive grants and NCLB waiver requests altered the landscape of the teaching profession in important ways. These responses created reporting systems that emphasized surveillance and accountability, while weakening institutional supports for teaching and learning. They also raised fundamental questions about the validity and reliability of teacher evaluation and performance assessment, particularly systems that link teacher evaluations to student performance on standardized achievement tests. A state-by-state analysis, released in November 2015 by the National Council on Teacher Quality (NCTQ), found that 42 states and the District of Columbia required that student growth and

achievement on standardized assessments be considered in evaluations of public school teachers. In 2009, only 15 states had linked student achievement measures to teacher evaluations (NCTQ 2015).

This prominent strand of the school reform movement, however, has recently taken a new turn. The powerful RTT incentives for states to emphasize student test scores in their teacher evaluation systems—while introducing new, more demanding tests tied to Common Core standards—aroused strong opposition from both ends of the political spectrum. Teacher unions, citing serious concerns with the validity and reliability of teacher performance measures derived from student test scores, vigorously opposed these measures. And they were joined in this opposition by Tea Party adherents and other conservatives who viewed these Obama administration initiatives as another unwarranted federal intrusion into local public schools.

In response to these pressures from unlikely political bedfellows, and to widely reported difficulties in implementation, including evidence of cheating and clumsy implementation (e.g., school districts using reading scores to evaluate art and gym teachers), President Obama signed a new education law in December 2015 that largely abandoned the RTT teacher evaluation reforms. The new Every Student Succeeds Act (ESSA) effectively terminates the Obama administration's incentives for states and districts to adopt more stringent teacher evaluation programs and bans the U.S. secretary of education from promoting teacher performance metrics in the future. Whether this new federal law leads the individual states to relax their test-based, value-added teacher evaluation standards remains to be seen.

The Plan for the Rest of the Book

I examine major institutions and reforms that have shaped the profession of K–12 public school teaching in the United States, with emphasis on the period since the publication of *A Nation at Risk* in 1983. In Chapter 2, I discuss the workings of public-school-teacher labor markets and the factors that influence teacher supply and demand at the national, state, and local levels. I focus particularly on the root causes of the substantial inequality in the distribution of teaching talent across local schools and districts within states and assess the impacts

of teacher compensation systems, including salary structures and retirement benefits, on teacher supply.

Chapter 3 chronicles the rise of public-school teacher unions in the 1960s and 1970s and contrasts the prominence of unions in public education with their dramatic decline in recent decades in the private sector. I examine recent state legislative efforts to curb union power and circumscribe teachers' job protections and assess judicial challenges to both these new state laws and to more long-standing union protections, such as public unions' authority to impose fees on nonmembers.

Chapter 4 traces the growth of charter schools in the U.S. and the evolution of this movement from the teacher-led reform envisioned by Al Shanker and other public education leaders in the late 1980s and early 1990s to a broad movement to privatize public education and greatly diminish the influence of classroom teachers in matters of curriculum, pedagogy, school governance, and working conditions. This privatization agenda, while enacted on a state-by-state basis, has been coordinated nationally to a great degree by the American Legislative Exchange Council (ALEC) and other organizations seeking to diminish the influence of teachers, and particularly union members, in public schools.

Chapter 5 traces the origins and the current state of the art of teacher evaluation and accountability. I review the rapidly expanding research literature on "value-added" modeling and the policy initiatives that have been spawned by this literature. I trace the origins of this movement back to the early 1980s, when a statistician studying the effects of radiation on farm animals for the Oak Ridge National Laboratory in Tennessee contacted the Tennessee governor's office with a proposal for measuring teacher effectiveness in the state. Although this offer was not pursued by the governor, the concept of "value-added" measurement came to dominate teacher evaluation and accountability policies at the state and federal levels.

In Chapter 6, I focus on the teacher workforce in two states, Michigan and Massachusetts, which have experienced very different educational outcomes since the early 1990s, when each state embarked on a series of substantial K–12 education reforms. Outcomes in Michigan have declined precipitously over the past two and a half decades, while Massachusetts has enjoyed such high and rising educational outcomes that the Bay State is widely considered to have the best public school

system in the U.S. I consider how state and local policies impacting the work of classroom teachers have contributed to the wide and growing disparities in educational outcomes between the two states.

The concluding chapter, Chapter 7, explores a number of problematic trends that may discourage interested and talented candidates from entering the teaching profession or encourage the early exit of incumbent professionals. I also examine the recent and remarkable #RedForEd movement and what this newfound union muscle and public support may portend for the profession. I also offer some ideas and avenues for reform that hold promise for strengthening the most important resource in our public schools—our classroom teachers.

Finally, an “Epilogue” addresses the still unfolding impact of the COVID-19 pandemic on our classroom teachers. While the full impact on teachers, students, and families may not be well understood for some time, one outcome is now clear: the pandemic has brought the inequities between affluent and poor schools and communities into bold relief. The heightened stresses and increased workloads burdening teachers, their school colleagues, and their students and families are examined, with particular emphasis on the supply of teachers across our local schools. It concludes with some observations on how these stresses on teachers and schools may be mitigated by the one-time federal emergency aid already received and makes a case for more permanent state support.

Notes

1. The tide may now be turning, at least with the federal government. The generally antiteacher union policies of the early Obama administration began to be unwound in early 2016 with the signing of the Every Student Succeeds Act (ESSA) (see Chapter 5), and the Biden administration thus far has been much more union friendly than the two preceding administrations.
2. This section follows Addonizio (2014).
3. At the time of the report’s release, the U.S. economy was in the depths of a recession that had begun in 1979. The unemployment rate had soared to 9.6 percent by 1983, with 10.7 million Americans looking for work and another 1.6 million having abandoned their search. Productivity growth, the source of improved living standards, was alarmingly low, having dropped precipitously from an average of 2.6 percent annually during the years 1962–1973 to an anemic 0.9 percent annually during the years 1973–1986. As a result, real wage growth nearly vanished, falling from a healthy 2.6 percent between 1962 and 1973 (tracking productivity growth) to a miniscule 0.3 percent during the latter period (Blinder 1987).

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4. For a good analysis of U.S. macroeconomic performance during the 1970s and early 1980s, see Blinder (1987), especially Chapter 2. For insight into the relationship between education and economic productivity, with emphasis on this period, see Murnane (1988).
5. By one estimate, online instruction costs 36 percent less per student than traditional, face-to-face teaching. See Peterson (2010), p. 250, cited in Abrams (2016), p. 141.
6. According to Nicholas Kardaras, the flood of technology into classrooms represents an “educational” Trojan horse driven by profit motive, not education science: “Education technology is estimated to become a \$60 billion industry by 2018. With the advent of the Common Core in 2010, which nationalized curriculum and textbooks standards, the multi-billion-dollar textbook industry became very attractive for educational gunslingers looking to capitalize on the new Wild West of education technology. A tablet with educational software no longer needed state-by-state curricular customization. It could now be sold to the entire country” (Kardaras 2016).
7. Baumol introduced his classic theory in 1967; see Baumol (1967).