Teaching by Numbers

Deconstructing the Discourse of Standards and Accountability in Education

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For Zoe and Una

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Preface

"U.S. students rank below those in other nations!" "Teachers can't pass tests they give to their students!" "Teacher education programs dysfunctional!" "Merit pay for teachers tied to test scores," "School textbook dealers making millions," "All kids can learn but how come so few teachers are getting them to learn?" These headlines, which could appear in any newspaper on any given day in the United States, provide the more sensational aspects of a massive transformation that has occurred in public education. Touted as educational reform and occurring under the twin banners of "standards" and "accountability," the transformation has, over the last decade, materially affected every aspect of schooling, teaching, and teacher education in the United States.

So profound is the transformation that the terms in which and under which teaching and teacher education may now be discussed appear set and non-negotiable. These terms, emanating from within neoliberal economic policies, corporate business practices, neoconservative social agendas, and particularly the learning sciences, frame the discursive and non-discursive practices that constitute education today. The fact that leading educational organizations have embraced this transformation suggests how even progressive impulses and aspirations have been appropriated, re-formed and aligned with educational policies and practices that were once seen as inimical to those very impulses and aspirations.

Although most teachers and teacher educators disagree with its excesses and can point out its failures, few of us know how to turn back what has happened or can point to alternatives. Many of us are bewildered as to how we arrived at a point where our teaching has been reduced to numbers – the numbers on test scores, the numbers of dollars attached to merit pay or to be made by profit hungry corporations, or the number of outcomes met. We wonder how we came to allow CEOs and politicians to determine what and how we teach, and how prescribed performance outcomes and scripted curricula rose to such importance. How did it happen that teachers and teacher educators came to talk about teaching and learning in ways that mimic how accountants, bankers, and salespeople

talk about business? The easy answer is to blame the quarter of a century rule by conservative and neoliberal business elites. The harder work is to fathom how and why educators themselves not only were led astray but also embraced practices and discourses that stripped them of their professional authority, failed to acknowledge their inner lives, and impoverished their teaching. *Teaching by Numbers: Deconstructing the Discourse of Standards and Accountability in Education* attempts to map the transformation that has occurred and to understand why we teachers and teacher educators allowed it to happen.

The book is informed by my years teaching high school English in New York City, teaching and administrating in an urban school of education, and consulting in a small high school in Brooklyn, New York. In particular it evolved over the four years I struggled as a program head and as an assistant dean to bring our teacher education programs into compliance first with New York State's revised regulations governing teacher certification and then with the inexorable and arbitrary demands made by the National Council for Accreditation of Teacher Education, NCATE. Those experiences left questions that grinded at me and that this book has tried to answer.

Four features of the book distinguish it from other scholarship that has focused on the corporatization of education, high stakes testing, the politics of accountability, and the standards movement. First, rather than focus on one particular aspect of the transformation, I have tried, as much as possible, to work on both micro and macro levels, and thus to present aerial and ground views of the transformation. Second, I specifically address the collusion of the educational establishment in the transformation and explore why so many educators have embraced the standards movement and sought more rather than less accountability. Third, I draw connections among the learning sciences, in particular their view of learning, the audit explosion, neoliberal economic agendas and educational reforms, such as No Child Left Behind (NCLB), and NCATE's performance standards. Finally, rather than render teachers as passive victims in the transformation, I have tried to understand the psychic vulnerabilities leading teachers to embrace or acquiesce to the educational reforms and thus to participate in their own suffering.

The book offers no answers. We are not ready yet. The transformation that has occurred is so profound that any alternative would quickly be appropriated. Before real change can occur, we have to clear a space where we can take stock of where we are and how we arrived here. I have attempted in this book to clear such a space.

This book can be used at both undergraduate and graduate levels in teacher education. It offers students, teacher educators and scholars in the fields of curriculum theory, urban education reform, teacher education, social foundations, and educational policy a vocabulary for articulating

what has happened and a perspective on the transformation through which we are living.

Chapters 1 and 2 introduce and provide an overview of the transformation.

Chapter 3 examines the most palpable aspect of the transformation: tests. I look at the specific content of some of the high stakes tests and consider their impact on students and teachers. What became clear as I was working on this chapter was how many teachers oppose the spread of testing, yet how little effect their voices have had. I try in the chapter to understand why that is. I also examine how tests function in schools to shock, interrogate, shame, and finally to abstract individuals from their contexts by translating them into numbers.

In Chapter 4 I consider the language of educational policy and try to show how that language reproduces itself at the level of federal, state, and local governments, in various educational organizations that bring together individuals from corporations, government, and education, and in organizations that are part of what I refer to as the education establishment. I was particularly interested in the rhetoric circulating among these groups, how seamless it was, and how, taken together, the policies spoke in one voice and one language. This chapter is, in some ways, the most important in the book because it reveals the sickening similarity between the language and policies promulgated by purportedly progressive educators and for-profit corporations interested in the education market. The very educators, for example, who criticize No Child Left Behind and its reliance on high stakes tests use the same buzzwords, the same tropes, the same statistics, the same warnings, and many of the same solutions as do corporate executives and right-wing and neoliberal politicians.

Chapter 5 takes a closer look at the discursive and non-discursive practices of standards and accountability. I tried to bring together in this chapter several ways of analyzing these. I have relied on critiques of neoliberalism, anthropological analyses of audit culture, and extensive reports on corporate penetration of the education market. I look at how particular practices, such as student teacher observation forms used in the School of Education at Brooklyn College, and New York City's principals' performance contracts, strip teachers and administrators of power under the guise of providing them with autonomy.

Chapter 6 tries to answer the troubling question of why so many teachers and teacher educators have embraced the transformation in education. I suggest that teachers' fears, their feelings of shame, the fantasies shaping their psyches and the cultural imaginary, and their sense of loss, all provoked and sustained by the educational discourses whirling round them, have made them vulnerable to the lure of the practices and language of accountability and standards. But such vulnerabilities alone would not have led so many educators to embrace approaches to teaching

and curriculum that opened them to the predations of the market. There had to be a language available to them that could translate the discourses and practices of audit culture into a palatable language that promised status, respect, and scientific objectivity. This was the language of the learning sciences.

The learning sciences are the focus of Chapter 7. In particular I look at their history and the connections with the military. I have tried in this chapter to point out the faulty assumptions within the learning sciences' views on teaching and curriculum and to show how insidiously these views and the language that articulates them serve as a conduit for corporate interests. Much of my work in this chapter concerns the equation by the learning sciences of learning with education. That particular equivalency has had doleful effects: teachers are positioned as primarily responsible for whether or not *all* children learn; in order to operationalize learning we have witnessed the resurgence of behavioral performance objectives and the collapse of learning into success on tests; intellectual life has dwindled into various cognitive skills, including metacognitive skills, which amount to little more than study skills; in chopping up teaching into various skills, the learning sciences have made it easier for corporations to package these and sell them; and, finally, the emotional and psychic life of teachers and students has been hollowed out or "black boxed" by the positivism of the learning sciences.

I conclude the book with a reflection on some suggestions for what we might do to push back against the various reform efforts and regulations that directly affect us in our particular locations. I am not optimistic that the discourses and practices cohering around standards and accountability will fall silent any time soon. President Barack Obama does not yet appear to have a way to talk about education other than in terms of preparing kids for the workforce and ensuring students and their teachers are held accountable. I do suggest a few steps we might take to slow down the transformation, but above all I advocate for clearing a space for teaching and curriculum by elucidating the connections among the various components of that transformation and bringing them into perspective. In continuing to articulate the transformation that has occurred, I hope we can create a clearing where eventually alternatives may come to be.

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Chapter 1

Introduction

> "I am talking about a climate that each of us knows, in part, but that we dare not generalize about, because we cannot see the whole picture; yet the time has come to start connecting the dots."
>
> —Lindsay Waters (2004, 7)

When I was a young boy in the early 1950s I enjoyed drawing, and I would often watch the John Gnagy show on our Sylvania black and white television, entranced by how easily he could conjure forms from within a framed blankness. Most of my friends were not interested in the show. If my friends did draw, they did so with the help of a kit that had begun to appear in the early '50s. It was called "paint by numbers."

The paint by numbers kits, marketed as a way for everyman and everywoman to produce art as good as the real thing, simulated the creative experience, while offering the security of clear direction. The underlying message was that, given the time and the kit, anyone, with a little practice, could be an artist, although not an abstract artist. Paint by numbers kits avoided abstract designs, which were looked at with suspicion in those early years of the decade. Karel Ann Marling documents in "Hyphenated Culture: Painting by Numbers in the New Age of Leisure" (1994) that by 1954, when an actual exhibit of paint by numbers art was mounted in the Eisenhower White House, paint by numbers kits were turning a hefty profit. By the late 1950s "by the numbers" had replaced "by the book" as a pejorative term for mass culture's formulaic products, and by the 1960s, with declining sales, paint by numbers kits had become camp.

The title for this book obviously cites that craze that swept the nation. I hope it also suggests how reducing painting to tyrannical numbers can soothe a neophyte's existential anxiety but at the same time can trivialize the complicated mystery of art. The problem with painting by numbers was not necessarily that it produced bad art or debased the public's aesthetic sense. In some ways it made the U.S., a nation not known for its appreciation of intellectual or artistic life (Hofstadter, 1962), a bit more involved in the process of making art. On the other hand, it suggested not

only that anyone could paint, as long as they mechanically followed directions, but also that satisfying the predetermined outcomes constituted art. The parallels to teaching seem obvious.

There were four main reasons for my choosing the title of the book. First, I wanted to suggest that teaching, teacher education, and education have increasingly been abstracted and recoded as numbers such as test scores, numerical data generated by various measuring instruments, and most of all dollar amounts. These numbers give the impression that what happens in classrooms—extraordinarily complex, psychically tumultuous and potentially both ecstatic and maddening places of teaching—is best understood as objective, transparent, and measurable.

Second, I wanted to bring into focus the widespread belief that all students can learn as long as their teachers follow directions. For a variety of reasons, over the last eight years, teachers and teacher educators have embraced the most mechanistic approaches to pedagogy and curriculum in the belief that these would empower them and help their students.

Third, I wanted to suggest connections among the marketplace, various educational theories and practices purporting to be objective or scientific, and the aspirations of teachers for security, control, status, and meaning.

Finally, I wanted to bring into focus the transformation that has occurred and is occurring in education. To do that, as Lindsay Waters suggests in the above quote, I had to bring into view areas that had remained only vaguely visible. Although paint by numbers was not a matter of connecting the dots, by following the numbers a picture did emerge. In that sense, I too had to immerse myself in the mechanistic discourses and practices that constituted the transformation, so that I could make the connections among a vast array of practices, policies, institutions, organizations, theories, and structures of feeling that constitute the transformation I have tried to map. It may be that in following the numbers, so to speak, I too sacrificed complexity at times for expediency. I hope not.

The subtitle of the book is meant to signal to the reader that my major focus is on the transformation in education that has proceeded under the twin banners of standards and accountability. That transformation, perhaps the most extensive since the rise of public schools, is the main subject of the book. It is a transformation that has been exceedingly hard to map, although one that, as Waters, an executive editor at Harvard University Press, suggests above, everyone senses or knows a part of yet has been unable to fully grasp.

To bring the transformation into focus, I paradoxically needed to "deconstruct" or critically analyze—take apart—the rhetoric used by government officials, media pundits, CEOs, educators, psychologists, and educational policy makers. I wanted to highlight how eerily similar the rhetoric of those pushing for the privatization of education and the surveillance of teachers was to the rhetoric employed by those committed to public

education and teacher autonomy. Meant to achieve antithetical ends, the rhetoric paradoxically produced the same dismal picture: incompetent teachers and dysfunctional teacher educators were jeopardizing the future of the nation's youth, economy, democracy, and race relations, and unless major changes were implemented the nation was headed for disaster. The changes consisted of the implementation of standards and systems of accountability.

The title refers to the "discourse" of standards and accountability. Although there is no one monolithic discourse that constitutes the transformation we are witnessing in education, and although that transformation spreads through the implementation of a series of regulatory practices at the macro and micro levels, I wanted to suggest my sense of the totality of these. It is that sense of the transformation's hegemonic status, its blanketing of an area—education—that had previously emerged as heterogeneous, that I was gesturing toward with the use of the singular.

The book grew out of my experiences over the last twelve years teaching and administrating at Brooklyn College's School of Education and for the last five years consulting at a small urban high school in the Bushwick section of Brooklyn. The work was also influenced by the many years I spent teaching high school English in New York. I came to higher education late in life. Whereas I received my doctorate in curriculum theory in 1980, and although I continued to publish, I didn't become a professor of education until 1996.

Most of my writing until the 2000s struggled to understand how social identities, personal histories, and the elusive workings of the psyche, the irrational, and the body shaped my own teaching and life in classrooms. Rubbing Foucauldian analysis against Lacanian psychoanalysis, I tried to make sense of the mysteries of desire and impersonal mechanisms of control as these meet in teaching and curriculum. An English teacher, I looked to the humanities for insight. I never would have dreamed that one day I would write a book about the screaming absence in education of any attention to the inner life of teachers or the wisdom offered by the humanities. After all, I had started teaching in 1969, and over the next three decades experienced the major issues in education in terms of personal freedom and consciousness raising, the anti-Vietnam War movement, the Civil Rights movement, feminism, the gay rights movement, and the struggle for economic equality. By the mid-1980s and through the 1990s the utopian energies that animated these movements had subsided, but they were still able to mobilize for what turned out to be a terrible final battle in the canon wars that swept through the academy and the media. When I arrived at Brooklyn College in 1996, that battle was still going on and the field of education was still very much involved.

At Brooklyn College's School of Education, under the leadership of Madeleine Grumet, faculty members conversed about aesthetic education,

the politics of identity, and the pairing of liberal arts and sciences courses with education courses. Such interdisciplinary and multicultural interests were not confined to Brooklyn College. The American Educational Research Association (AERA) titled its conferences in 1996, 1997, and 1998, respectively, "Research for Education in a Democratic Society," "Talking Together in Educational Research," and "Practice and Diversity and Citizenship in Multicultural Societies." Division B of AERA, Curriculum Theory, whose membership at the time was expanding, as opposed to today, when it is declining, was clearly dominated by theories and approaches to research that reflected an interest in the arts, the humanities, feminism, gender studies, multiculturalism, and critical pedagogy. Furthermore, in the 1990s the *Journal of Teacher Education*, the *Harvard Education Review*, *Curriculum Inquiry*, and *Teachers College Record,* to name a few of the more prestigious journals in the field, devoted considerable space to issues related to the politics of identity, the arts in education, autobiographical research, and even queer theory, postmodernism, deconstruction, and poststructuralism. Between 1995 and 2001, *The Review of Research in Education*, AERA's yearbook on educational research, published numerous articles on equity, politics, race, gender, identity, constructivism and critical literacy. There were no articles on standards, testing, or outcomes-based education. So in the waning years of the twentieth century there was a space for alternative understandings of teaching and education, although the discourse of standards was metastasizing across the nation. And then it all changed. And it seemed to change almost overnight.

I would not have felt compelled to write this book had I not witnessed first hand, in my work as an administrator and teacher, the devastating effects of the reform efforts under discussion. I felt I had to join with others (see for example Pinar, 2004) who believe as I do that the national conversation on teaching and teacher education is terribly askew. Someone once asked me, after a paper I had delivered, whom I was arguing with. This book is making an argument, which in its simplest form is that we need to talk about teaching, teachers, and education in much more nuanced and capacious ways than we currently do. But to do that we need to understand how and why we arrived at the place we are today and to clear a space for such discussions.

More specifically, I am arguing with those who maintain teaching is analogous to medicine, assert the goal of education is to prepare students for a global economy, claim teaching is a science, and insist measurable student learning should be and is the objective of good teaching. I believe strongly that we need to exorcise the superegoic voice of the learning sciences, which has helped lure us to the state in which we find ourselves today and to free ourselves from CEOs, who presume to know how best to approach teaching, the curriculum, and education. Driving the transformation I describe in this book is the desire for money, but that desire

has disguised its mercenary intent in the purported altruism of standards and accountability.

Certainly one might reasonably ask how the transformation I map in this book differs from previous efforts in the U.S. to reform schools or from the long history of business's attempts to influence educational policy or from the endless critiques of education and educators that have appeared over the years. How different is this transformation from, for example, the one in the first quarter of the twentieth century that Raymond Callahan described in *Education and the Cult of Efficiency*? There he detailed "the power of the business-industrial groups" to shape education policy and "the extent and degree of capitulation by administrators, to whatever demands were made upon them" by "their critics" (1962, i–ii). Or how different is it, one might wonder, from the massive infusion of federal and private monies into science and mathematics education in the 1960s and the consequent turn to science as the panacea for education's troubles?

It is important to understand that the transformation I explore in this book is not simply a new version of the "cult of efficiency" or corporate intrusion into the classroom or education's faith in science. What we are witnessing today is something new, and something much more dangerous than a worship of science or the "cult of efficiency." Its uniqueness lies in its pervasiveness, its threat to the very foundations of public education, its wide embrace by the educational establishment, its direct assault on the intellectual, aesthetic, and ethical life of teachers, and its radical misunderstanding of teaching.

The transformation this book maps has over the last decade, profoundly affected all aspects of teaching, schooling, and teacher education in the United States. Although it is clearly not confined to the United States—its origins can be found in Margaret Thatcher's England, and it now affects all developed countries and many developing ones—I focus in this book on the transformation in the U.S.

It is a transformation that in the name of educational reform may well render public education obsolete. It is certainly impoverishing the intellectual lives of teachers and students and having baleful consequences on teacher education. As Diane Ravitch, perhaps the most well known historian of education in the U.S., a former Assistant Secretary of Education, and paradoxically one of the key architects of the transformation, warned in her February 2007 keynote address to the American Association of Colleges for Teacher Education, AACTE:

> I think we really do face a situation that can justly be called a crisis. Never have I felt more certain that public education itself hangs in the balance . . . I don't think the American public has any idea about the seriousness of the efforts to dismantle public education, piece by piece.

At the most recognizable level, the transformation has progressed through a series of educational reforms implemented by federal, state, and local governing bodies, regulatory agencies, professional organizations, and educational institutions. These reforms consist of policy statements about and regulations governing curricula, teaching practices, teacher preparation, school administration, educational auditing, licensing and accreditation practices, the progress and geographical movement of students, the distribution of material resources, and the operation of for-profit educational enterprises. The reforms have most dramatically affected public schools and teacher education programs, but they are increasingly aimed at all institutions of learning, including colleges and universities. Their most palpable aspect consists of the high stakes tests, with which we are so familiar, but about which we are less knowledgeable.

At another, less obvious level, the transformation has progressed through the widespread adoption of particular terms, concepts, and practices that emanate from within conservative social agendas, neoliberal economic policies, and the learning sciences.

These terms and concepts, such as, for example, "performance outcomes," " best practices," "data driven," "metacognitive strategies," "learning environments," and "evidence based research," mobilize, anchor, and normalize particular discourses on teaching and education. Those discourses shape national, state, and local mandates governing schools, teacher education, and pedagogy and curriculum. Practices once confined to the corporate world, in particular auditing and accounting practices that reduce complicated phenomena and experiences to quantifiable and thus commensurable data, now structure how we think about what happens and what should happen in classrooms. Increasingly practices that rely on mathematical calculations and the impersonality of numbers have replaced individual teachers' often unique and context specific approaches to teaching.

Because these terms, concepts and practices circulate within the world of business and the learning sciences, they tie the educational reforms to these two fields—science and business. This association bestows a particular legitimacy on the reforms at a moment when science and business enjoy prestige in the media, among politicians and in the public imagination. Furthermore the apparent objectivity of quantification lends an aura of fairness and disinterestedness to an endeavor—teaching—that critics perennially accuse of being haphazard, rife with prejudice and subjectivity, and lacking authority. As the sociologist Nikolas Rose (2003) writes, "[W]here mistrust of authority flourishes, where experts are the target of suspicion and their claims are greeted with skepticism by politicians [and] distrusted by public opinion . . . [n]umbers are resorted to in order to settle or diminish conflicts in a contested space of weak authority" (208). It is hard to dispute that the work of teachers, teacher educators,

and educators in general is often greeted with skepticism, suspicion and disdain. The bottom line, the authority of science, and the exactitude of numbers seem to offer critics and criticized alike a solution to such problems. We are quite literally teaching by numbers.

Chapter 2

The Current State of Affairs

> "Kafka, of course," he says, showing me that smile again.
> "Yes, this is true; many of us survive almost solely on Kafka.
> Including people in the street who have never read a word of his.
> They look at one another when something happens, and they say,
> 'It's Kafka.' Meaning, 'That's the way it goes here now.' Meaning
> 'What else did you expect?'"
>
> —Phillip Roth (1977, 115)

At some point in the spring of 2003, the semester before I became an assistant dean in the School of Education at Brooklyn College, I realized something had radically changed in how my colleagues were talking about teaching, education, and their life in schools. Having been subjected the previous two years to New York State's new regulations governing teacher certification, having spent hours in meetings frantically plotting how to meet these mandates, and now having to face the daunting task of preparing for a visit in 2005 from the National Council for Accreditation of Teacher Education (NCATE), professors increasingly filled their conversations with talk of outcomes, performance data, alignment of standards, rubrics, grids, and how to "tweak" or "jury-rig" or simply fabricate course syllabi or bulletin descriptions to meet some new standard. Program and general faculty meetings consisted more and more of discussions about how to comply with directives from the state or outside agencies and associations. In hallway corners and behind closed doors, faculty whispered threats of leaving and despairing words about the surveillance to which they were being subjected. Less and less audible were conversations about race—after five years the Committee on Race, Ethnicity, and Equity had fallen by the wayside—or about aesthetic education—collaborative efforts with Lincoln Center Institute had declined—or about faculty research interests—monthly discussion groups at which colleagues presented their scholarly work had faded away. Replacing these were discussions about how to meet the NCATE standard for diversity, how to ensure standardization across courses, how to tabulate and collect faculty

publications, and how to formalize a conceptual framework. More and more faculty talked about how Kafkaesque their life had become. This was in the spring of 2003, two years before the actual visit from NCATE.

Things weren't much better at the Bushwick School for Social Justice (BSSJ), a small New Visions Brooklyn high school whose founding I had played a part in and whose doors would open to 110 ninth graders in the fall of 2003. The school was part of Mayor Michael Bloomberg's initiative to replace the city's large high schools with hundreds of new small ones. Initially promising opportunities for creating diverse educational visions, the initiative suddenly seemed to be producing a slew of mandates from the Department of Education that turned new teachers and a new principal into "first responders" rather than thoughtful practitioners and administrators. A new ninth grade English curriculum, Ramp Up to Literacy, which Mayor Bloomberg had purchased for $4.5 million from Marc Tucker's group, America's Choice, was causing alarm among teaches who complained of its lock-step design and the bizarre mixed messages they were getting. On one hand New Visions, the group responsible for overseeing the establishment of the new small high schools, had said to them, "We want you to be free to create your own curriculum." On the other hand they were told by the city's Department of Education, "You must use our Ramp Up curriculum."

Teachers referred to the situation as Kafkaesque. But did the high school teachers at BSSJ and the education professors in the School of Education use that term the way Philip Roth's professor of desire had: to mean, "What else did you expect?" Or did they mean that something incredibly alienating, absurd and horrifying was occurring, something over which no one seemed to have any control, or about which no one had any say, something which brooked no questions and which made everyone feel ashamed and on trial for some unknown crime? In retrospect I would say that the prevalent use of "Kafkaesque" didn't mean, "What else do you expect?" Rather it expressed a dazed confusion, bewilderment, and inexplicable guilt, or, one could say, a growing sense of shock.

In *The Shock Doctrine: The Rise of Disaster Capitalism*, Naomi Klein argues that corporate interests open up new markets and try to privatize the public sphere by taking advantage of or quite literally causing a state of shock. According to Klein, a state of shock, created by nature, as in the case of hurricane Katrina, or by human planning, as occurred in Chile in 1974, is followed by "reforms," which often involve the rapid privatization of the public sector. Klein attributes this "shock doctrine" to Milton Friedman. She writes

> In one of his most influential essays, Friedman articulated contemporary capitalism's core tactical nostrum, what I have come to understand as the shock doctrine. He observed that "only a crisis—actual

> or perceived—produces real change." . . . And once a crisis has struck, the University of Chicago professor was convinced that it was crucial to act swiftly, to impose rapid and irreversible change before the crisis-racked society slipped back into the "tyranny of the status quo." (2007, 6–7)

In 2003 there continued to be a good deal of talk about a crisis in education. Businessmen, politicians, media pundits, and some educators were raising the frequency and volume of the alarms that had been sounded for several decades but that had been getting louder since the 1980s. These critics, who worried about what they saw as a crisis of failing schools, failing students, and failing teachers, looked back to an earlier call to arms, *A Nation at Risk,* and concluded little had changed since that report had labeled the state of education a national disaster. For example, in the spring of 2003 the Hoover Institute's Koret Task Force, found few changes since the publication of *A Nation at Risk*, and concluded that American K–12 education remained "mired in mediocrity" and would "require enormous changes at its core in order to become more effective" (see Koret Task Force, 2003). Pete Dupont, two-term Republican governor and *Wall Street Journal* editorial writer, wrote in May 2003 that schools, students and teachers were not performing any better than they had been twenty years earlier, when *A Nation at Risk* had come out. And Abigail and Stephen Thernstrom's book *No Excuses: Closing the Racial Gap in Learning*, appearing that spring with a laudatory endorsement from Diane Ravitch, argued little progress had been made in closing the academic gap between whites and blacks, a gap they saw as an educational crisis and "the main source of ongoing racial inequality" (2003, 1–2). Newspapers were filled with dismal depictions of education such as this one by Paul E. Peterson from *The MetroWest Daily News*, datelined Sunday, April 6, 2003:

> The last twenty years have been as revolutionary as any this country has ever witnessed . . . Average incomes are up, welfare dependency and crime rates are down. But if life has changed for the better in many ways, our schools have hardly budged in any direction whatsoever.

Of course, many of the reports describing an imminent catastrophe also offered solutions. In January of 2003, Louis V. Gerstner, the former chair and CEO of IBM, announced the formation of a new national commission called The Teaching Commission to focus on improving the quality of teaching in public schools. Apparently his duties as chair of the commission didn't interfere with his duties as head of the Carlyle Group, which he also assumed that year. The Carlyle Group, as you may recall, had been accused by the *Guardian* newspaper, among others, of

war profiteering, and using its prestigious list of ex-presidents and Bush family connections to help secure its $13.5 billion in assets (Burkeman and Wednesday, 2001). Nor did any educators on the panel question Gerstner's creed at IBM that no company owed its employees lifetime employment, just employability (T. Friedman, 2006, 366). In the tradition of *A Nation at Risk*, Gerstner's commission, chocked with nationally known figures, such as Boeing's CEO, Philip Condit, Carnegie Corporation's president, Vartan Gregorian, an ex-Secretary of Education, Richard Riley, the Chancellor of CUNY, Matthew Goldstein, an ex-first lady, Barbara Bush, and the then UFT president, Sandy Feldman, issued its report, "Teaching at Risk." Arguing that "academic achievement is still disappointing" and that "our nation can ill afford a poorly educated labor force . . . in a competitive global economy," the report argued that we must get good teachers by tying compensation to classroom performance, including student test scores (Teaching Commission, 2004).

Two decades of accumulating charges that our nation was threatened by the crisis of failing teachers, failing schools, failing students, and failing teacher education programs were finally having their full effect. By 2003 the language of crisis was driving educational reform, as evidenced by the passage of No Child Left Behind in 2002. Offering a more measured view were scholars such as David Berliner and Bruce Biddle (1995), Richard Rothstein (1998), and Gerald Bracey (2004), to name a few skeptics, who believed that not only was the crisis presented by *A Nation at Risk* "manufactured" but the continuing talk of an educational crisis was greatly exaggerated. Their articles used statistics to refute or challenge the alarms raised by more conservative or business-oriented education critics, but their voices didn't carry into the public forum.

It was certainly no news to me or to any of my colleagues in the School of Education or at the Bushwick School for Social Justice that the alarmist talk of declining scores and incompetent teachers was based on fabrications and ambiguous data. What I hadn't realized was that neither position had it right. As Milton Friedman had said, "It didn't matter whether the crisis was actual or perceived" (cited in N. Klein, 2007, 6–7). The catastrophe was arriving in the shape of the very reform efforts purportedly responding to the real or "manufactured" crisis. The sense that everything was becoming Kafkaesque and the shock my colleagues were experiencing resulted from the transformation that was occurring. The sign posted on an office door, "If they keep us running, we won't have to think," the tears spilled by a well respected scholar of women's history because she couldn't figure out how to color code her syllabi or aggregate the data for NCATE, the look of exhausted resignation on the face of a teacher scolded by Diana Lam, New York City's then Deputy Chancellor for Teaching and Learning, for resisting the Ramp Up curriculum, and finally the cowed and dispirited looks on the faces of faculty after yet

another School of Education meeting at which data collection was the topic—all these marked the state of a people being shocked into compliance, softened up for the corporatization and marketing of education.

When, four years later, at the American Association of Colleges for Teacher Education (AACTE) conference in February of 2007, Diane Ravitch spoke of a crisis in public education, she was referring to the end of public education. What she missed, and what I was only becoming aware of in that spring of 2003, was that the crisis, the shock, was the effect of the very educational reform efforts meant to address the crisis. The attempt to privatize public education didn't constitute the crisis; it was the logical extension of the reform efforts purported to solve the crisis in education. The fears fomented in Chile in 1974 that Salvador Allende was implementing communism or in the U.S. in 2002–2003 that Saddam Hussein had and was about to use weapons of mass destruction didn't constitute the crisis for Chile or Iraq—the shock of violent and brutal actions taken as a result of these did. In the same way the purported crisis in our education system voiced by some critics or the attempt to privatize that system didn't constitute the crisis or shock. What shocked was the implementation of "reforms." It was the shock of those reforms that would numb or wear down teachers and educators such that resistance to the corporatization and privatization of public education would be weakened. "Reformed" enough or shocked enough, teachers and teacher educators would be "willing to hand over a great deal of power to anyone who claim[ed] to have a magic cure" (N. Klein, 2007, 168). And as we shall see there were, and are, a great many people offering magic cures.

In April of 2003 I attended a meeting at Hunter College on how to make sense of, and comply with, NCATE's six standards. Less than a month earlier the U.S. had invaded Iraq. After listening to the speaker detail the myriad elements making up the standards, I half-jokingly said, "I feel we have been shocked and awed." The real shock was still to come, but the transformation in education was already well under way.

The transformation that has proceeded under the twin banners of "standards" and "accountability," has over the last decade profoundly affected all aspects of teaching, schooling, and teacher education in the United States, and now threatens public education itself. It has moved at remarkable speed. Exceedingly complicated to map because it is so extensive and because it is still emerging, the transformation must somehow be rendered so we can fathom its full impact. I have tried to present the contours of the transformation, with the understanding that it continues to metastasize at the federal, state, and local level, and that all its various permutations and manifestations are impossible to chart. With this in mind I have approached the transformation by focusing on several of its constituent parts: tests, which are the lynchpin of the transformation; the

language of public policy, which drives the transformation; the discourses and assemblages of business practices associated with neoliberal economic policies and what British anthropologists call audit culture, discourses and practices that have accelerated the standardization and quantification of educational experience and turned it into an education market worth billions of dollars; the rhetoric of blame and fear and the promulgation of heroic narratives of exemplary teachers, which, coupled with the widespread use of tests, render teachers and teacher educators susceptible to the language of policy and the lure of business practices and make possible teachers' psychic investment in various aspects of the transformation; and, finally, the ascendancy of the learning sciences, which have annexed pedagogy and curriculum to applied psychology and provided the points of translation or the bridges between educational discourses and the discursive and non-discursive practices of the business world.

These components do not exist in direct causal relationships. For example, the blame and fear spread over the last three decades by the media, by business interests, by conservative educators, and by politicians struck a resounding chord among educators, such that they jumped on the bandwagon of change and turned for answers and anodynes to discourses and practices already circulating within audit culture and the learning sciences. The implementation and rapid triumph of these discursive and non-discursive practices, in turn, created more fear and blame, which then contributed to their further spread. That spread in turn facilitated the corporatization of education, which stoked more fear and pushed educators to strive for professional status and the assumed objectivity of quantification and science as a bulwark against privatization. That bulwark, in turn, has proved to be a Trojan horse. What is important to understand is that there are no easy causal narratives unifying these phenomena. They reinforce one another and intermingle in unpredictable ways. Nor can we claim that educators have been innocent victims of corporate, right-wing or neoliberal educational blitzkriegs. Rather, fantasies of grandeur and fears of worthlessness conjured by the media, politicians and big business, fantasies and fears that are now inherent in the way education has come to be defined—these, among other factors, have led teachers and educators to collude in summoning the night that has fallen on our field.

None of us who teach, regardless of the educational level, are immune to the effects of the transformation taking place. It reaches into the corners of our practices, constricts our daily life in schools, and influences how we think about what we do in our classrooms. It dictates how we spend at least some of our professional time, how our work is evaluated, and how we determine the meaning of our work. Other than working in an independent school or private college or private university, there is currently no way to escape the effects of the transformation. Even those institutions of privilege are not immune.

As those of us who teach in public K–12 schools or in teacher preparation programs walk into our classrooms each semester to meet the challenges that await us there, around us a dizzying, frenzied outpouring of policy statements, mandates, regulations, marketing pitches, editorials, critiques, "innovative" learning technologies, and tests will continue unabated. The demand for and reliance on numbers, on quantifiable data, will continue to shape practices ranging from curriculum development to how we evaluate what we do. Deans of schools of education, or chairs of departments of education, particularly those housed in public colleges or universities, will worry about pass rates on teacher tests, NCATE accreditation, limited resources, the latest criticism of teacher education, and ensuring that teacher preparation isn't taken over by state or city departments of education, "alternative" teacher training programs, or private companies. Walk into a dean's office and listen to the questions and comments. "Did you see that article in the *New York Times* blaming schools for our economic failures?" "Did you read Arthur Levine's attack on teacher education?" "We better ensure our teacher candidates know what best practices are." "We need to get our professors out to the schools, so they know what's going on on the ground." "Our graduate surveys show weaknesses in some of our programs; we need to address that right away." Lower-level administrators will fret over getting faculty to turn in data, specify learning outcomes and rubrics, align syllabi, and meet the standards of various professional organizations. Feeling dispirited with their new middle management role but committed to aligning the curriculum and "clearing out the dead wood," these administrators, often program heads or chairs, will complain about lack of reassigned time, and the failure of faculty to see the big picture, to face reality, or to participate in a national conversation that seems mainly to come from the American Association of Colleges for Teacher Education (AACTE), the National Commission on Teaching and America's Future (NCTAF), the Carnegie Foundation for the Advancement of Teaching, NCATE, and various professional associations, such as the National Council of Teachers of English (NCTE) or the National Council of Teachers of Mathematics (NCTM). Faculty, often demoralized by calls to become entrepreneurial and think "outside the box," which generally means coming up with a more efficient way of doing what is asked, will engage in a kind of passive-aggressive behavior as they fail to do what "management" wants. Some faculty, often those in areas more inclined to a positivist approach to education, such as math, science, educational technology, and educational psychology, will talk up the good aspects of the new mandates, although these professors too will feel burdened by the emphasis on data and outcomes. And deans, administrators and faculty will repeat the current educational shibboleths and pass along warnings that, "Yes, it's horrible, but if we don't institute these reforms, they'll shut us down."

High school and elementary school teachers will complain about the focus on high stakes tests, while they rush to ensure that their students' scores don't result in school closings, lower salaries, or poor school grades. Principals will lose sleep over their bottom line, measured in some cities such as New York by a literal grade, and teachers will grumble that their principals are more concerned with high test scores than curriculum or teaching. Parents will express dismay at neighborhood schools that received low rankings and will scramble to find other schools for their kids, although at some point media pundits and think tank scholars will once again blame those parents for their kids' failures. And we will all continue to follow the steady stream of newspaper and magazine stories traducing teachers for undermining our economy or failing to keep black and Latino kids out of jail.

Liberal arts and science faculty, pressured by their own administrators, who worry about their college's accreditation, will snicker at but comply with demands to standardize their syllabi and grading policies. Some professors, echoing perennial complaints about how poorly students write today, will embrace detailed rubrics and value added approaches that use tests to benchmark student writing and measure teachers' impact on its improvement. Burgeoning college and university teaching centers, which often have no connection to schools or departments of education on campus, thus further demoralizing education faculty, will promote the contributions that brain research, cognitive science, and distance learning can make to outcomes assessment, as provosts and presidents compete with one another for students and ranking in *U.S. News and World Report*. And throughout higher education a ceaseless burbling about entrepreneurialism will grow louder, as substantive discussions about education fade.

Shocked and awed, we'll reach for some language that might explain what is happening and provide some momentary relief, but the words and concepts some of us clutch at, such as "data assessment systems" or "best practices" or "backwards design," will simply keep us dazed. Even when we turn to our professional organizations, the talk we hear, albeit perhaps critical of the excesses of No Child Left Behind and laudatory of salvific policy commitments to social justice and diversity, will echo with talk of accountability, performance outcomes, the learning sciences, and how, if we just implement practices grounded in scientifically-based research, we will soon achieve the status of physicians and engineers (Bransford, Darling-Hammond, and LePage, 2005, 12; Shulman, 2005). The narratives to which others of us turn, heuristics that once seemed useful, such as those informed by identity politics or feminist or neo-Marxist theory, seem themselves to have "melted into air" or shrunk into anachronistic polemic sung to the choir, leaving us feeling discouraged and stunned. But perhaps nothing shocks students and teachers in elementary, middle, high schools, and higher education as much as tests.

Tests are the cattle prods, the surgical strikes, the electrical probes that administer the first shocks. They extract the information, the data that will be used to initially hold the system accountable, and in the name of standards, they "level" the ground or playing field. Then they open it up to the market.

Chapter 3

Tests

> Why has the test—throughout history, and perhaps most pervasively today—come to define our relationship to questions of truth, knowledge and even reality?
>
> —Avital Ronell (2005, 17)

In *The Test Drive* Avital Ronell, chair of NYU's German Department, argues that the test "has restructured the field of everyday and psychic life" (2005, 19). "The test," she writes,

> has everything to do not only with the way the policing of political sites and bodies takes place but also with the experienceability and constitution of reality in general, especially since the elliptical circuit that now has been established between testing and the real often works to cancel the difference between them.
>
> (19)

Certainly testing has come to define our approach to education, and test results have come to define educational reality. It is hard to remember a time when tests weren't the obvious way to measure our professional success. Was there a time when curriculum was not "planned backwards" from tests, when tests did not direct the curriculum as they "operationalized" performance objectives and learning outcomes? NCATE's latest incarnation requires teacher candidates to demonstrate that they have a positive effect on student learning. Ask most administrators how they'll document that effect with data, and they'll respond, "The candidates can administer pre- and post-tests."

We have arrived at a moment when students and teachers are subjected to a curriculum driven by disconnected multiple-choice questions or essay prompts that must be answered in a set amount of time and that have little if any relationship to problems, interests, or speculations that we might associate with thinking, erudition, creativity, or a curriculum animated by and responding to the flux of a classroom. It is difficult to believe the

extent to which we have already entered the "soundbite" approach of the test-driven curriculum. This is not to say that there is a dearth of critics of testing, particularly of the testing regime of No Child Left Behind. It is hard to find educators who have not at least muttered their dissatisfaction with high stakes tests and the educational malversations of the Bush administration.

One has to question, though, why these critiques have been so impotent and why critics have been so parsimonious in their attacks on the ubiquity of testing. This is a question I shall address at the end of this chapter. Suffice it to say here that one of the reasons concerns their myopia about the discursive network supporting tests. It is, for example, hard to believe that critics of high stakes testing embrace exams for teachers or that they refuse to acknowledge the links between tests and polices that emphasize performance outcomes, and yet they do. It is also hard to believe that we could test students more than we already do, but it appears that more tests are on their way.

On May 31, 2007, an article by Julie Bosman appeared in the *New York Times* entitled "City Will Expand Testing of Public School Students." The story reported that the previous day New York City Schools Chancellor Joel I. Klein had announced that "the city school system would spend $80 million over five years on a battery of new standardized tests to begin [in the] fall for most of New York City's 1.1 million public school students" (Bosman, 2007, A19). The contract would be awarded to CTB/McGraw-Hill, which already provides New York State with standardized exams, and would involve an increase in the number of exams students take. The exams, called periodic tests, are meant to monitor student progress, predict how students will do on state exams, which are required by No Child Left Behind, and help teachers better prepare their students for these exams. According to the report

> Pupils in Grades 3 through 8 will be tested five times a year in both reading and math, instead of three times as they are now. High school students, for the first time, will be tested four times a year in each subject. In the next few years, the tests will expand to include science and social studies.
>
> (A19)

The article offered comments by several educators representing different interests. Randi Weingarten, the president of the United Federation of Teachers, worried about the time the tests would take away from teaching. Michael Casserly, the executive director of the Council of the Great City Schools, a group that lobbies for large urban school systems, noncommittedly suggested that the tests "can be helpful and useful," when they work, but he cautioned they don't always work. Monty Neill, an

executive director of FairTest: the National Center for Fair and Open Testing in Boston, and Jane R. Hirschmann of Time Out from Testing, a New York state group opposed to standardized tests, expressed concern that curriculum was being driven by "test prep and test taking" (A19). On the other hand, James Liebman, the chief accountability officer for New York City's Department of Education, saw the increase in tests as providing better ways to "figure out where the problems are." Joel Klein defended the tests as meaning "more learning" (A19).

There appeared little opposition to the Chancellor's mandating of increased testing, although New York City's high school students, when you factor in the Regents, the newly introduced PSATs, the SATs, and various other tests, could take up to twenty high stakes test over the course of four years. Perhaps educators and teachers have simply become inured to the presence of testing. That seems to be the case, at least according to Monty Neill, who was quoted by Michael Winerip, in a February 22, 2006, article in the *New York Times*. He stated, "With N.C.L.B. a lot of people feel the debate is over. The attitude seems to be, 'Testing is so pervasive, what's the point'." The article recounts not only how financial support has dried up for FairTest, but that the sentiment expressed by the president of Educational Testing Service, Kurt Landgraf, captures the public's and the education establishment's attitude toward testing. Landgraf earns $1.07 million to run the non-profit ETS and its for-profit K–12 subsidiary, ETS K–12 Works, whose CEO, Wayne Gressett had been the vice president of marketing for Harcourt Educational Measurement. Landgraf stated, "Perhaps if [FairTest] had been more attuned to the public's support for using tests to help teachers teach and students learn, then they might have had wider support."

With all the testing going on, an enormous amount of numerical data is generated, so it is not surprising that Chancellor Klein contracted with IBM at a cost of another $80 million for new diagnostic tools and a new data and knowledge management system called the Achievement Reporting and Innovation System (ARIS). According to an IBM press release (2007) ARIS "will provide detailed information about student performance and progress to educators." In the release Klein is quoted as saying, "ARIS will give the teachers, the principals, and the parents of New York City the critical tools they need to really understand what students know—and don't know."

Currently being implemented at the Bushwick School for Social Justice, the system provides a good deal of data on students—test results, absentee reports, disciplinary incidents, and teacher comments. Some teachers and administrators praise the system as providing a way to know immediately about a student and to track his or her progress. Indeed the system offers a mechanized version of the close tabs kept on students in elite prep schools, where teachers have close contact with students in

small classes and meet regularly to discuss specific students. But it is just this surveillance at a distance that causes other teachers to worry. One teacher said to me, "I don't know about it, but sometimes I think the data and reports are replacing the kid. We don't talk about the students as much as their test profiles." Such control from afar, that is control exercised through surveillance of abstracted data, reflects the audit culture that pervades schools today. That culture requires endless streams of data to be aggregated, so that, even at a small school such as BSSJ, a system of virtual relationships with students can gradually replace the specificity and idiosyncrasy of situated, face-to-face relationships. Paradoxically, then, the move to smaller-sized schools not only does not mean smaller class size but also does not necessarily mean, given the pervasiveness of auditing practices and the testing that is their most important component, more intimate relationships with students.

As we shall see, the explosion in testing, in part mandated by NCLB, but in part the logical result of the push for standards and accountability, has resulted in huge profits for several companies, such as McGraw-Hill, IBM, Pearson, and ETS K–12. These companies produce tests, test preparation materials, and textbooks aligned to the tests, offer technologies and systems that collate, aggregate, and interpret the data produced by the tests, and provide services and products that address the new needs of students, teachers, and administrators who must face the consequences of poor results on these tests (Emery and Ohanian, 2004). It is not surprising that teachers and educators succumb to pressures to purchase anodynes to the very shocks produced by the tests that are mandated.

Joel Klein is not the only chancellor who sees the numerical data of test results as significant indicators of what students know and understand. The *New York Times* on July 28, 2007 (Arenson, 2007), reported that Matthew Goldstein, Chancellor of the City University of New York (CUNY), planned, as a way to raise admission standards, to require fall 2008 applicants to Brooklyn College and other of CUNY's top tier colleges to show a minimum score on the math SAT of 510. The required score is currently 480. The Chancellor also plans to raise the verbal SAT cutoff score. Math scores would be raised first, said the Chancellor, because students were "so woefully unprepared," resulting in 40 percent of students failing or dropping out of introductory math classes, a not uncommon occurrence in many universities. It is worth noting here that the increasing use of math tests to measure student preparedness for higher education and the workforce coincides with the increasing reliance on numerical data to understand teaching and education, as well as with the fomented fear that the U.S. is slipping behind in the digital information age and the questionable calls for science, technology, engineering and math (STEM) education.

Plans are also being considered at CUNY to raise the cutoff scores on New York's math A Regents exam and American College Testing (ACT)'s Compass placement tests in pre-algebra and algebra. Several presidents of City University's colleges expressed satisfaction at the decision, arguing that raising the standards added cachet, and that the time had come for such a move. It is interesting to recall that several elite private colleges, such as Smith, Bates, and Wake Forest, seem to feel that the time has come to drop the use of the SATs. Of course such a move by the Chancellor may well exacerbate the decrease in poor and working-class students at the five top colleges. There is solid evidence that SAT scores correlate primarily not with academic promise but with family income. Scores rise by 12 to 31 points with every additional $10,000 earned by the family (Rothstein, 1998). But higher family incomes may be exactly what public institutions of higher education are looking for, given the need to raise tuition in the face of declining city, state, and federal funding. Raising the bar has some other consequences as well. In April 2007 Goldstein received the Carnegie Corporation's Academic Leadership Award, which "celebrates excellence," in part, as Vartan Gregorian stated, for "raising standards" (Carnegie Corporation News, 2007).

Although several teachers in New York and across the country worry about what they see as an overreliance on standardized tests and their negative effects on children, they should also be concerned about the impact of such tests on their own careers. Testifying on May 11, 2007, before the House Committee on Education and Labor on improving teacher quality, Klein touted New York City's efforts and plans to improve teacher quality. Klein stated that in addition to merit pay, based on performance, "we also intend to take teacher impact on student performance into account," and that "if we are really going to change things, we need to acknowledge candidly that results matter . . . It's not right to hold students accountable for high achievement without also holding adults accountable for their own performance." Tests will provide the data, which ARIS will then aggregate, disaggregate, and turn into information that will be used to hold teachers accountable. As Christopher Cerf, the deputy chancellor of New York City schools, said, "I'm unapologetic that test scores must be a central component of evaluation"; he added that fourth grade test scores tended to predict whether kids would end up in jail or earn a decent living (Keller, 2008).

Klein's and Cerf's commitment to testing as a way to evaluate teachers is echoed in several policy statements emanating from think tanks and education organizations. For example, Education Sector, a self-styled independent research organization, whose co-directors are Thomas Toch, one of the founders of *Education Week* and a writer-in-residence at Marc Tucker's National Center on Education and the Economy, and Andy

Rotherman, director of the 21st Century Schools Project, an extension of the Progressive Policy Institute, a neoliberal foundation aligned with the Democratic Leadership Council, argues for the centrality of students' tests in determining teacher performance. NCATE and the National Commission on Teaching and America's Future both emphasize the importance of evaluating teachers in terms of their own performance and their students' performance on exams. Education Sector, NCATE, and NCTAF as well as other educational organizations qualify their focus on tests by urging cities, states, and the federal government to use multiple assessments and performance indicators rather than rely solely on multiple answer tests, but shrinking budgets means tests wind up providing the data used for evaluation.

As resources devoted to education decline, it is even less likely authentic assessments or differentiated assessments will be used, given the time and personnel required for their implementation. Budget cuts and the everyday triage on resources occurring in urban public schools render nugatory expostulations about alternative assessments, which so often accompany prescribed emplacements of outcomes and data aggregation systems. So, for example, at the very moment New York City is expanding tests, public schools have been subjected to budget cuts of up to $600 million over two years (J. Medina, 2008, B8). BSSJ's operating budget has already been hit, leading to fewer teachers and more reliance on audit practices.

New York City, of course, is not the only large metropolitan area to ratchet up the already intense use of tests, to equate numerical test results with high standards, erudition, and understanding, and to hold schools and teachers responsible for such learning. Other cities, such as Chicago and Boston, are doing the same. Across the nation standardized testing is used as a public policy strategy to hold schools, students, and teachers accountable. According to FairTest: The National Center for Fair and Open Testing's Noe Medina and Monty Neill (1988) American public schools administer more than 100 million standardized tests each year, including IQ, achievement, screening, and readiness tests. According to "The New Landscape of Educational Privatization in the Era of NCLB," published in 2006 in *Phi Delta Kappan*, "sales of printed materials related to standardized tests nearly tripled between 1992 and 2003" (131). Pat Burch, Joseph Donovan and Matthew Steinberg write that "one of the four largest companies in the area of test development and preparation generated . . . a profit of $560 million in 2003" (132). It is no coincidence that test makers provide the strongest lobby against a national test. After all, no one wants to be the one *not* to get the bid.

K–12 Testing

Here are only some of the tests that will be administered to kids aged 8 through 18 during the school year: ACT, Advanced Placement Exams, Arizona's Instrument to Measure Standards (AIMS), California High School Proficiency Exam, Colorado Student Assessment Program Test, Connecticut Academic Performance Test, Dynamic Indicators of Basic Literacy (DIBELS), Florida Comprehensive Assessment Test, Iowa Test of Basic Skills (ITBS), Iowa Test of Educational Development, Kansas Assessment Test, Massachusetts Comprehensive Assessment System, IQ tests, Michigan Educational Assessment Program, Missouri Assessment Program, National Assessment of Education Progress (NAEP, also known as The Nation's Report Card), New England Common Assessment Program (NECAP), New Jersey Grade Eight Proficiency Assessment, High School Proficiency Assessment, and Assessment of Skills and Knowledge, PSATs and SATs, Pennsylvania System of School Assessment, Program for International Student Assessment (PISA), Progress in International Reading Literacy Study (PIRLS), Regents Examinations, Standards of Learning Test (SOL), Stanford –9, Terra Nova, Texas Higher Education Assessment (THEA), Texas Assessment of Knowledge and Skills (TAKS), Trends in International Mathematics and Science Study (TIMSS), Washington Assessment of Student Learning.

Obviously not all these tests are given to all students, but all public school students will take at least one of these high stakes tests, and the results will have serious consequences for students, schools, and teachers. What exactly do these tests look like? They consist predominantly of multiple choice items and occasionally of writing samples. Here are some examples of multiple choice questions chosen at random from the NAEP, the MCAS and the New York State Regents. Although most readers have themselves had to submit to high stakes exams, the vacuity of the exams coupled with their purported prognosticative power may understandably have erased memories of them. I encourage you to try to answer the following questions and then to ask yourself if you are really sure of your response and what knowing or not knowing the answer reveals about you.

Test Examples

NAEP

The National Assessment of Educational Progress (NAEP) is administered to a small number of students selected (or sampled) to represent the entire population of fourth, eighth, and twelfth graders in schools across the nation. The test is criterion-referenced, which means that selected individuals decide what scores constitute levels of proficiency. NAEP's results are

required by NCLB as a standard against which a state's high stakes tests are measured to see if they are "challenging." NAEP results are frequently used to prove how poorly U.S. students are doing. The following questions were included in the NAEP 2006 Economics assessment at the grade 12 level. U.S. students excelled on the test, but these results, as opposed to poorer ones, were not widely publicized.

Question 1: Which of the following is a policy tool of the Federal Reserve?

A Raising or lowering income taxes
B Increasing or decreasing unemployment benefits
C Buying or selling government securities
D Increasing or decreasing government spending

Question 3: Two countries are currently trading with each other. The countries agree to remove all trade restrictions on products traded between them. Which of the following is most likely to *decrease*?

A The variety of goods available
B The prices of imported goods
C The quality of goods available
D The amount of imported goods

Question 4: Which of the following has been most important in reducing poverty over time?

A Taxes
B Economic growth
C International trade
D Government regulations

(http://nationsreportcard.gov/economies_2006/e0110.asp)

In terms of difficulty the questions were labeled hard, medium, and medium. The correct answers are C, B and B.

The following question was included in the NAEP 2005 fourth grade mathematics assessment, an assessment against which NCLB's state-required fourth grade high stakes test results are compared.

Question 16: Sue bought a notebook for $3.59. She gave the clerk a $5 bill. Which of these is the correct amount of change?

A One dollar, four dimes, and a penny
B One dollar, five dimes, and a penny
C Two dollars, four dimes, and a penny
D Two dollars, five dimes, and nine pennies

(http://nces.ed.gov/nationsreportcard/itmrls/searchresults.asp)

The correct answer is A, and remember these are timed tests.

MCAS

The Massachusetts Comprehensive Assessment System (MCAS) is given to students from third grade on. The high school test determines whether students receive a high school diploma and is considered one of the most difficult exit exams in the country. The following are questions from the 2005 English Language Arts, grade 10 MCAS assessment.

From *Macbeth* by William Shakespeare

To-morrow, and to-morrow, and to-morrow,
Creeps in this petty pace from day to day,
To the last syllable of recorded time;
And all our yesterdays have lighted fools
The way to dusty death. Out, out, brief candle!
Life's but a walking shadow, a poor player
That struts and frets his hour upon the stage
And then is heard no more: it is a tale
Told by an idiot, full of sound and fury,
Signifying nothing.

10. What is the effect of the repetition in line 1?

    A It shows that the speaker looks forward to the future.
    B It emphasizes that each day is the same as the next.
    C It reminds the audience that times passes without notice.
    D It expresses curiosity about what the next day will bring.

11. In line five what does the metaphor "brief candle" suggest?

    A The speaker is on his deathbed.
    B The speaker fears being alone.
    C The speaker believes life is short.
    D The speaker prefers darkness to light.

12. What does Macbeth mean in the last three lines?

    A He believes people should be humble.
    B He is retelling stories of others
    C He believes life has no meaning.
    D He is surprised he is still alive.

(http://www.doe.mass.edu/mcas/2005/release/g10ela.pdf)

The correct answers are B, C, and C.

New York State Regents

The New York State Regents exams consist of exams in six subjects, English, American history, global history, mathematics, science, and a foreign language. Each exam must be passed with a grade of 65 for a student to graduate with a Regents diploma. Following are questions from the New York State 2007 Regents in American History.

23. What was a major goal of the Dawes Act (1887)?

    1 to provide a tribal legislature to govern all reservations
    2 to remove the Cherokees from the southeastern United States
    3 to strengthen Native American Indian tribal unity
    4 to encourage assimilation of Native American Indians

24. The theory of Social Darwinism was often used to justify the

    1 creation of the Ku Klux Klan
    2 formation of business monopolies
    3 use of strikes by labor unions
    4 passage of antitrust laws

27. What was a primary reason for the great migration of African Americans to northern cities during World War I?

    1 job opportunities were available in northern factories.
    2 Jim Crow laws in the South had been repealed.
    3 voting rights laws had been passed in northern states.
    4 the federal government had guaranteed an end to discrimination.

    (http://www.nysedregents.org/testing/socstre/ushg-607.pdf)

The correct answers are 1, 1, and 4.

As one reads through these tests, tracking the various questions, a view of knowledge emerges that equates understanding or creativity or erudition with information retrieval, the ability to concentrate for long periods of time on a meaningless task, alacrity in making decisions, and compliance with directives that have no relevance to one's own interests, desires, abilities, knowledge, or understanding. Furthermore, on many of the questions, one can argue for more than one correct answer. Can't taxes, economic growth and government regulations all reduce poverty? Cannot the metaphor of the brief candle suggest a preference for darkness as well as the brevity of life? Was not Social Darwinism used to justify monopolies as well as the KKK? Yet these standardized tests, now referred

to as "high stakes" tests, not only have one answer, not only purport to measure important knowledge, but also can determine one's fate.

High stakes tests can have serious consequences for students, teachers, school districts, school personnel, administrators, and schools. Rewards and sanctions that are attached to them can affect a kid's future, the survival of a school, school funding, a teacher's salary, and an administrator's job. Furthermore, the results on the tests are used often to shame teachers, teacher educators, schools, and students. Since 1980 the results on these tests have purportedly shown the failures of our educational system, the incompetence of teachers and teacher preparation programs, and the racial disparities in achievement. Other than in terms of gatekeeping functions, however, *none* of the tests are correlated with college, professional, or economic success. Nor are the results strongly correlated with student GPAs. Although charges of racism and gender bias have been leveled at various tests—note the report of a question on the 2006 New York Regents in global history asking students to describe how British imperialism benefited Africans (Einhorn, 2006)—and although the tests themselves have been critiqued—note the Rockefeller Regents Exam Review Panel's findings that the English Regents was "a test of taking the test," that literature was not well served by the exam, and that students would be better off without it (Regents Exam Review Panel, 2001)—the larger issue concerns how answers on predominantly multiple choice questions, or responses to de-contextualized writing prompts or to passages abstracted from any meaningful situation, equate with intelligence, erudition, imagination, or understanding. And yet, tests increasingly determine how we think about and talk about teaching, curriculum, and education. The data they generate become the "objective" reality used to justify educational policy.

In "Objectivity as Standardization: The Rhetoric of Impersonality in Measurement, Statistics and Cost-Benefit Analysis," Theodore M. Porter argues that the reliance on numerical data and the "rhetoric of quantification reduce[s] public choices to rules, and . . . ground[s] those rules in the impersonal laws of nature and number" (1994, 227). Presented as a neutral objective language that minimizes arbitrariness,

> [q]uantitative conclusions carry authority in part because they seem dictated by explicit procedures for gathering and processing numbers and to be independent of the passions and interests that inform political debate.
>
> (209)

In order to become an object for quantification "society must be remade . . . Categories of people and things must be defined; measures must be made interchangeable" (201). Tests provide the equalization of disparate phenomena and render them quantifiable.

Defenders of tests argue that without them there would be no "objective" basis for comparison among students, teachers and schools, and that they offer the best hope for a meritocracy rather than a plutocracy, aristocracy, or system based on racial supremacy. The problem, as Nicholas Lemann (1999) documents in his history of the SAT and the Educational Testing Service, *The Big Test: The Secret History of the American Meritocracy*, is that the meritocracy is a lie, that money and race erase any salutary effect of such tests. Fundamentally, tests provide little more than data, but just as one must question the confessions extracted under torture, one has to wonder just how reliable that data is, when it is wrung out of students shocked by the constant administration of tests.

NCLB – No Child Left Behind

Although high stakes tests began to be widely administered in the 1970s, during the minimum competency movement, it is only since the passage of No Child Left Behind that their use has exploded. The No Child Left Behind Act, a reauthorization of the Elementary and Secondary Education Act (ESEA) of 1965, which was meant to provide money to further Johnson's civil rights agenda and War on Poverty, was signed into law by President Bush in January of 2002. It is 1100 pages long. Like a declaration of war, it has mobilized education departments, agencies, and associations at local, state, and national levels. With a clarion call to finally address our nation's racial inequities in education, to shine a light on the "soft bigotry of low expectations" and to ensure that no child was left behind and that every child learned, the architects of NCLB, in particular Sandy Kress, Bush's Texas education advisor, proclaimed NCLB as the way to hold schools, teachers, and students accountable. Faced with supposedly alarming numbers on the achievement gap and declining test scores, state representatives and senators, in a strong bi-partisan showing, passed the No Child Left Behind Act. A little more than a year before the shock and awe invasion of Iraq, a campaign planned with the corporate wisdom of Donald Rumsfeld, the shock of NCLB, planned with the wisdom of other corporate executives, hit. And it hit with tests.

Every state in the nation is now required by No Child Left Behind to implement high stakes tests every year between third and eighth grade and once between tenth and eleventh grades, although, as Jay Greene, Marcus Winters, and Greg Forster point out in their article "Testing High-Stakes Tests: Can We Believe the Results of Accountability Tests?" (2004), there is no standardization of testing policies nationwide. To ensure that the states are complying, NCLB requires administration of the National Assessment of Educational Progress (NAEP) so that results on this test can be compared with the states' test results. "If state proficiency

levels are upwardly skewed and fail to match student progress on the now-compulsory NAEP, state standards will be found wanting by the U.S. Education Department (ED), and sanctions will be imposed" (Bloomfield and Cooper, 2003, 6). The law requires that by 2013–2014 all states must ensure that 100 percent of their students are proficient on state reading and math standards. As the right-wing American Enterprise's Frederick M. Hess (2007) relates

> NCLB requires states to set academic standards that define three levels of achievement: basic, proficient and advanced. For each assessment, each state must then develop corresponding tests in reading, math, and eventually science.
>
> (2)

Although there are three levels of achievement, NCLB requires that all students meet the proficiency level, a requirement, as we shall see, that is a contradiction in terms.

Whereas some states have always had high stakes testing—for example, New York has for decades used the Regents as an exit exam—it is only since No Child Left Behind that standardized test scores have become the primary indicator used to ensure accountability. NCLB requires every state to construct an accountability system that has rewards and sanctions attached to it and that will use tests to numerically measure a variety of phenomena, for example student progress, school achievement, teacher quality, and the "achievement gap." Data from these tests must be disaggregated by socio-economic status, gender, race, ethnicity, disabilities, and levels of English language proficiency.

Detractors argue that high stakes testing and NCLB, with its demand for adequate yearly progress (AYP) and that all students must meet high standards, not only are rife with contradictions but corrode and corrupt education. Seemingly endless debates about the validity, reliability, educational import, and transparency of NCLB and high stakes tests have gone on since NCLB's inception, and yet the movement to increase testing has not abated.

For example, on July 30, 2007, Representative George Miller, D–Calif., the chairman of the House Education and Labor Committee, and an original coauthor of the No Child Left Behind Act, said he planned to revise the act before its reauthorization, which will occur sometime during President Obama's first term. According to Miller, under the new law "states will be allowed to develop [multiple measures of success] to measure what all students have learned." Miller added that the tests must test twenty-first-century skills "that today's students need to meet the complex demands of the American economy and society in a globalized world"

(quoted at eSchool News online at http://www.eschoolnews.com/news/showStoryts.cfm?ArticleID=7296).

Miller's "multiple measures of success" gesture toward assessments other than tests, but given the demand for numerical data, corporate investment in testing, time constraints on teachers, the expediency of tests, and a worrisome economy, the twenty-first century will see more tests, not fewer. Furthermore, the results on tests provide the evidence for those who wish to reshape public education.

On July 25, 2007, New York's Mayor Michael Bloomberg, reminding us yet again of educators' failure to heed the dire predictions of *A Nation at Risk*, warned an audience of the Urban League in St. Louis that students were not prepared for the twenty-first-century global economy.

> Next year is the 25th anniversary of the publication of *A Nation at Risk* . . . Today, our schools are further behind than they were 25 years ago—even though we've doubled education spending over the last several decades. If you did that with your 401 (K) or your pension fund, you'd work for the rest of your life and die broke.
>
> (2007)

According to Chancellor Joel Klein, NCLB addresses such warnings with its system of accountability. Klein (2007) told the House Committee on Education and Labor that although No Child Left Behind legislation "might not be perfect, it is very valuable." Klein claimed the law forced us to "recognize that the achievement gap—the gap that separates our African-American and Latino students from their white peers—is the chief problem in American schooling." He called that gap "the most serious civil rights, social, and economic crisis facing America today" and cautioned that we should "not yield to the critics of NCLB because . . . their complaints are missing the law's broader significance." Klein concluded with the hope that the next version of NCLB would use tests also to measure teacher quality.

Klein's claim that the achievement gap constitutes the gravest threat facing the U.S. today appears hyperbolic if not absurd—until, that is, we consider the number of educators who argue that if we had better teachers in schools and did a better job of educating our students, crime would go down, the economy would improve, and class divisions would disappear (Darling-Hammond, 2006). If we just did more to prepare those students for those exams, we could achieve the American dream, Martin Luther King's dream, and the dream of economic equality. I would argue it is more likely that we'll just fall into a deeper sleep.

Also optimistic about high stakes tests were several Massachusetts educators, who found, in February 2006, a reason to cheer in the results on

the high stakes MCAS, one of the nation's more difficult exit exams. David Driscoll, Massachusetts Commissioner of Education, Paul Reville, a former member of the Massachusetts Board of Education, Nancy Walser, a member of the school board in Cambridge, Massachusetts, and Glenn Koocher, executive director of the Massachusetts association of school boards, said respectively that the tests "were just a floor," that "[p]eople underestimated the effort of teachers and students once they are focused," that "I tend to forget that we're even giving a high-stakes test," and that "[t]here's something to be said for the fear of God theory, and the test put the fear of God into the kids" (Shaw, 2006). Fear of God sounds a lot like shock to me.

Applause for high stakes testing has also come from the President of NCATE, the National Council for Accreditation of Teacher Education. In a 2003 piece entitled "What's Wrong with Teacher Certification," Arthur Wise wrote primarily about holding teachers accountable, but his advocacy of testing was evident.

> Basic skills testing should be replaced with tests that measure outcomes of liberal arts and general studies, including high levels of literacy and numeracy and writing and speaking skills . . . Rigorous content tests aligned with professional standards for teachers and students should be required . . . New teaching knowledge tests should be developed . . . Assessments of teaching performance, including the impact of teacher on student achievement, *defined by success on exams*, must be a prerequisite for a professional teaching license.
>
> (11, my italics)

Clearly Mr. Wise shared Chancellor Klein's and the above quoted Massachusetts educators' views on testing. Nor should it be a surprise that in 2001 ETS, the Educational Testing Service, jointed with NCATE to ensure alignment between Praxis examinations for teacher licensing and NCATE. NCATE representatives consult with ETS on test development, and Wise (2005) has argued the collaboration will provide evidence that teaching is a profession with a base of knowledge that licensed teachers know and apply. In March of 2007, Kurt Landgraf, President and CEO of ETS, warned that "our nation is at a crossroads. We will not continue to lead if we persist in viewing teaching . . . as a second rate occupation" (2006, 41). According to Landgraf, collaboration between ETS and NCATE on licensure exams will ensure that teaching is seen as a first rate profession. Furthermore, he added, "our Praxis Study Guides help candidates do their best on the tests, while our Diagnostic Preparation Program helps them improve their scores" (25). These, I need not add, all cost money.

Critics of NCLB's High Stakes Testing

It is common now among critics of high stakes testing to cavil that we all know about their excesses and deleterious effects, so let's not hear yet again about the exams. I think we have to keep exposing both the extent and the absurdity of their use. Thankfully, in the last few years criticisms of NCLB and high stakes testing have mounted, but although the critiques are now almost a daily occurrence, the future seems to hold, if anything, even more tests for students in public schools. The question of course is why? Certainly one reason is that tests and the numerical data they provide offer a sense of control in what often appears, for a variety of reasons, as a turbulent, chaotic and dangerous sphere—public schooling. I shall argue in Chapter 6 that the fear and blame spread and cast by media, politicians, business interests, and right-wing ideologues committed to vouchers have driven many educators to embrace the discourse of standards and accountability and thus tests. Right now I want to propose some other answers that will also help us map the present state we are in. One way to understand why mounting criticism over the use of high stakes testing and NCLB has not affected the use of such tests, why in fact the use of tests appears to be growing, is to look at the critics of high stakes testing and NCLB. They can be divided into three main groups: (1) politicians and policy makers, (2) teachers, parents, and activists, and (3) academics.

Politicians and Policy Makers

The first group consists primarily of politicians and policy makers who accuse NCLB of usurping states rights, expanding the federal bureaucracy, particularly the Department of Education, not pushing charter schools hard enough, or not providing enough funding to implement the law. These critics are not opposed to high stakes testing or the educational assumptions implicit in NCLB. Many conservatives support the Academic Partnership Lead Us to Success (A-PLUS) Act, which gives states much more power to determine how federal money is spent and how progress will be determined, powers that conservatives hope will not only fuel charter and voucher movements, but open up greater opportunities for profit-making corporations to enter the education market. On the other hand we have Tom Harkin, an Iowan Democrat who chairs the education subcommittee of the Senate Appropriations Committee, claiming at a hearing on NCLB in March of 2007 that "Year after year, the president sends us a budget that comes nowhere close to funding No Child Left Behind at an adequate level" (Chaddock, 2007). That sentiment is shared widely by Democrats, including President Barack Obama, but few have come out strongly against high stakes testing. President Barack Obama

voices concern about the focus on testing but in the same breath reiterates his commitment to accountability. As is all too evident, accountability translates into teachers' responsibility for their students' learning as measured by performance on tests.

Overwhelmingly, politicians at whatever level of government who critique NCLB do not object to its focus on tests. High stakes testing remains the preferred method of achieving high standards and holding students, teachers, administrators, and schools accountable. So although this group is critical of NCLB, they are not critical of high stakes testing or testing. As we shall see in following chapters, the reasons for so many politicians' support of standards and accountability have to do primarily with conservative ideology, ignorance about teaching, and a commitment to corporate agendas.

Teachers, Parents and Activists

The second group of critics of NCLB consists of K–12 teachers, their national organization, the National Education Association (NEA), parents of students in K–12 schools, and school activists. This group makes its voice heard through union clout, through various activist organizations such as FairTest, Time Out from Testing, and The New York Parents' Coalition to End High-Stakes Testing, through professional organizations, such as the National Council of Teachers of English, through polls and surveys taken by non-partisan policy centers and media outlets, and through more popular publications by education activists, such as Susan Ohanian, Deborah Meier, and Jonathan Kozol.

In July 2007, for example, then NEA President Reg Weaver contended that NCLB damaged the "excellent education" most public school students received and did little to close the achievement gap, which, he argued could only be closed if attention were paid to poverty and unemployment (Keller, 2007). NEA members, you might recall, had been referred to as "terrorists" by the previous Secretary of Education, Rod Paige. Whereas Weaver and the NEA have been highly critical of NCLB and the overreliance on standardized testing, members have voiced conflicting views, at least according to some polls, often finding that the regimented curriculum, practices, and focus on monitoring progress offered some security in a chaotic classroom. Furthermore, the NEA is a founding member of the Partnership for 21st Century Skills, whose statement of principles reads, "The Partnership believes that our organization's framework for 21st century skills is consistent with the metrics and accountability emphasized in the No Child Left Behind (NCLB) Act" (http://www.21stcenturyskills.org). Perhaps not surprisingly, the partnership, chaired by NEA Executive Director John Wilson, includes a range of business partners, for example Time Warner, Ford, Microsoft, Cisco Systems, Dell, Verizon, SAS.

Nevertheless, reports of teachers being concerned with the emphasis NCLB puts on testing are growing.

Those concerns are shared by the majority of teachers in the National Council of Teachers of English. Whereas the 2007 NCTE Legislative Platform: NCLB Recommendations (http://www.ncte.org/positions/statements/2007legisplatform) pledged to close the achievement gap "through accountability, flexibility, and high quality instruction" and affirmed "the principles of educational equity that shape No Child Left Behind," the platform also called for multiple assessments, increased funding, the adoption of peer review systems, and adoption of growth models. Interestingly, in July 2007, more than 750 members of NCTE wrote Congress demanding that fundamental changes be made in the NCLB legislation. Of those NCTE members polled, 63 percent called for substantial changes and one third of those polled said the act should not be renewed. A remarkable 96 percent said that standardized tests scores should not be the only indicator of AYP and most felt that NCLB had not produced a positive effect for students in general and was particularly harmful to poor and disabled students (Williamson, 2007).

Two years before this poll was taken FairTest's National Center for Fair and Open Testing had issued a position statement highly critical of NCLB:

> NCLB is based on false assumptions . . . State tests are weak measures of high-quality standards. NCLB's obsessive focus on raising test scores causes increased emphasis on exam preparation.
>
> (www.fairtest.org)

Similar to FairTest, but existing at the state level, is Time Out from Testing. According to their mission statement, the group is a statewide coalition of parents, educators, businesses, communities, and civil rights organizations in New York State committed to a "time-out" from excessive and high stakes exams. The group has called for "a comprehensive review of the Regents exams and state-initiated 4th and 8th grade standardized tests and the impact they have had on our children, our schools, and our communities" (http://www.timeoutfromtesting.org/mission.php). The organization has been outspoken in its criticisms of New York's Mayor Bloomberg and Chancellor Klein for their emphasis on high stakes testing, their falsifying dropout numbers, their use of no-bid contracts with outside vendors, their labyrinthine reorganization of the schools and the fact that 85 percent of the school report card is weighted toward testing. They have also claimed the Regents exams "have been universally discredited." The organization, however, claims to wholeheartedly support standards for all students. It's important to note that although a group

such as Time Out from Testing is critical of excessive testing, it reveals an almost desperate desire for accountability and standards in public education, implying these have not been there or have been weak.

Polls taken by public polling organization about NCLB have shown mixed results. According to Tom Loveless of the Brookings Institute,

> most recent polls show support for and opposition to NCLB evenly balanced among the general public, with . . . Blacks and Hispanics more likely than whites to favor NCLB and people making $75,000 or more per year . . . more likely to oppose NCLB than people making less than [that].
>
> (2006, 6)

Southern states and states showing a greater number of low-performing schools are more apt to voice support for NCLB and its harsh testing policies (16), which may not be surprising given that, at least among southern states, high divorce and teenage pregnancy rates seem to lead to an embrace of narrowly prescriptive and punitive approaches to marriage and sex.

Although these groups, and writers such as Susan Ohanian (see susanohanian.org) and Jonathan Kozol (2005), have acted at the grassroots level to fight NCLB and high stakes testing regimes and to reveal the profit motive behind them, these activists and critics have not been able, as yet, to shift or prevent the transformation that has occurred in education. Their lack of success can be attributed in part to their failure to gain media coverage. Reports in the corporate media of corporate profiteering in education are rare. Furthermore, the educational establishment has failed to support their critiques. As we shall see, teacher education organizations have been particularly slow to criticize the language of accountability and standards, finding in it a way to gain professional status.

Although occasionally critical of NCLB, established educational organizations have turned to testing as a gate in teacher licensing and as a way to measure teacher quality. But there is a more important reason why the voices of activists, teachers, and parents have not been heard. Because so many of the grass roots groups have themselves felt disappointed by public education, they have found in the language of accountability and standards an articulation of their aspirations and frustrations. Persuaded by fears spread about educational failures and by the blame placed on teachers, schools, and schools of education, these groups have been unwilling to relinquish the discourse of accountability and standards since they see in it a wedge for educational improvement. Their adhesion to the discourse of standards and accountability reveals how successful self-interested critiques of education have been, how few alternatives exist,

and how pervasive is the desperate and illusory reliance on education to solve the nation's problems.

Academics

The third group of critics of high stakes testing and NCLB falls into two camps. The first includes theorists and educators, who have long been critical of mainstream approaches to education and schooling and been strong opponents of standardized testing. These writers, often curriculum theorists, educational historians, and sociologists and philosophers of education, have over the years theorized about the class, gender, and racial politics of schooling and education in the U.S. They have decried the technocentrism, instrumentalism, racism, sexism, and heterosexism of not only No Child Left Behind, but also the programs that have since the 1970s passed themselves off as educational reforms. Their views of the current state of education can be summarized by Pinar's description of this historical moment as an "educational nightmare" (2004).

Although these theorists have shifted the field of curriculum theory, introduced the humanities and arts into how we think about teaching, research, and the curriculum, and exposed the dominant and often reactionary economic and political forces operating behind public education, their influence has not extended to mainstream educational associations or the general public's consciousness about teaching and schools. The failure of their views to get a hearing among educators and politicians is due in part to their emphasis on critique as opposed to positive suggestions, although some of their programs have achieved Pyrrhic victories. For example, process writing has become the scripted curriculum sold by Lucy Calkins, and multicultural education is measured by NCATE in terms of counting bodies of color. Their failure is also attributable to the triumph of neoliberal and conservative ideologies, and a climate in which numerical data tends to be the only evidence that politicians and many educators respect.

The second camp includes educators whose criticism of NCLB and high stakes testing has actually had some influence on governmental policy, in the sense that they or their reports, policy statements or comments have made their way to Congress or the ears of legislators and heads of various educational associations. These critics have tended to be researchers whose background is often in testing and measurement or psychology. For example, Robert Linn, David Berliner, and Eva Baker have backgrounds in measurement or psychology. Linn has appeared before Congress to testify about NCLB and along with another critic, Richard Rothstein, an economist, has pointed out the absurdity of a policy that requires all students to be proficient in terms of standards that are specified as challenging.

In "'Proficiency for All' – An Oxymoron," Richard Rothstein, Rebecca Jacobsen, and Tamara Wilder (2006) argue that NCLB's requirement that every child, regardless of background or ability, in grades 3 through 8 be proficient in math and reading by 2014 is patently absurd.

> Proficiency for all is an oxymoron . . . [because] it intends all students to be proficient as defined by the National Assessment of Educational Progress (NAEP) . . . [which] requires standards of proficiency to be "challenging," . . . No goal can simultaneously be challenging to and achievable by all students across the entire achievement distribution.
>
> (2)

> What NCLB has done is the equivalent of demanding not only that 'C' students become 'A' students nationwide, but that 'D' and 'F' students also become 'A' students.
>
> (24)

Rothstein, Jacobsen, and Wilder go on to argue that although NAEP is used as a measure of a state's own tests, NAEP's shift in the 1990s to criterion-referenced rather than norm-referenced tests means that someone, often those with political agendas or little knowledge of psychometrics, decides on what constitutes *proficient*. Such criterion-referenced tests are, according to the authors, "fraught with subjectivity" and politicized, and yield results that "the federal government itself acknowledges should be 'interpreted with caution'" (3). The reason such tests are vulnerable to politicization is that a criterion for proficient is set arbitrarily, in the sense that it is what someone or some group with power to enforce their views believes students ought to be capable of. On the other hand norm-referenced tests are based on what actual students can achieve, so proficient would be determined by what the average or above average student can do. In either case, whether we use "proficient" in the NAEP sense to mean achievement of an arbitrarily established score or in the sense of the average or median score earned by students, to assume that all students would be proficient is, as they say, an oxymoron. To add to the problems the authors found the NAEP cutoff scores marked "proficient" were "unreasonably high" (12) and had "no scientific or scholarly credibility" (41).

Rather than suspend high stakes testing, the authors recommend that NCLB use a "statistical procedure inspired by 'benchmarking' practices employed in the business world" that would permit a sophisticated return to norm-referenced measures (4). Such a system, the authors contend, would "use relative performance measures" and would "expect students in each demographic group to perform at a higher level than they presently do, by establishing benchmarks based on what demographically

similar students in best practice conditions, actually do achieve" (55). In fact this is the procedure that is used in New York City's distribution of grades to various schools. Finally, the authors challenge the Department of Education's conflation of "proficiency" and "grade level" and refer, as an example of such confusion, to Secretary of Education Margaret Spellings's comment that NCLB is committed to ensuring that "every child—regardless of race, income, or zip code—can read and do math at grade level" (quoted in Rothstein, Jacobsen, and Wilder, 2006, 14). As the authors point out:

> Grade level performance usually means the average performance of students currently in a given grade [and] is established by administering a standardized test to a national random sample of students in that grade . . . [A]pproximately half of all students will demonstrate below grade level performance for the year in which it is measured . . . [A]ll students at grade level is a logical impossibility.
>
> (15)

It is important to understand that the arguments here, although exposing confusion and misinformation, do not challenge the widespread use of testing. In fact, the system now in effect in New York City does work with benchmarks, tracking individual students' performance on tests to see if they are improving, remaining the same, or falling backwards, and the city takes into account socio-economic status and special needs when evaluating test results. The critics whose background is in psychometrics don't dispute the value of tests. For them testing remains the preferred way of gathering information. They just want more rational uses of the tests, and their argument with current uses centers on technical issues.

Those educators who focus on the statistical validity, reliability, and misuse of the test results have now produced a body of work that is so voluminous that reviews of the findings are being written. The reviews suggest a field of research that cannot come to agreement. For example, a good deal of debate about exit exams focuses on how or if they affect dropout rates. As is almost always the case, the results are inconclusive (Callet, 2005). In a review of this literature, Valerie Callet summarizes the findings:

> Lillard and DeCicca (2001) . . . found that state mandated minimum course requirements, including minimum competency testing for graduation, increase the dropout rate . . . Amrein and Berliner (2002), found that the dropout rate increased in 62% of the states that implemented an exit exam . . . Alternately, Warren and Edwards (2005) . . . found "no significant relationship between high school

> exit examination requirements and high school diploma acquisition." Rabinowitz, Zimmerman and Sherman (2001) argue that not enough evidence exits to link high school exit exams with increased dropout rates.
>
> (290–291)

Further disagreement over whether NCLB and high stakes testing increase dropout rates is found in the work of Orfield (2004) and Heubert and Hauser (1999). Other disagreements involve whether or not high stakes testing increases or decreases academic achievement (Amrein and Berliner, 2002; Carnoy, Loeb, and Smith, 2003; Nichols, Glass, and Berliner, 2005). The Civil Rights Project at Harvard University's 2006 report that tracked student achievement in the years since the passage of NCLB found that there had been no significant impact on improving reading and math, nor had there been a significant narrowing of the achievement gap (Jaeger, 2005). Research offered by the Department of Education found just the reverse.

Conflicting conclusions have also been reached about the following: whether the results of high stakes tests are distorted or corrupted by the sanctions attached (Greene, Winters, and Foster, 2004; Nichols and Berliner, 2005); whether or not NCLB and high stakes tests have reduced, increased, or maintained the achievement gap (Bracey, 2004 ; Koretz, 2005; Harris and Herrington, 2006); and whether student test scores have actually fallen or risen or remained constant (Berliner and Biddle, 1995; Grissmer et al., 2000; Thernstrom and Thernstrom, 2003; Rothstein, 1998).

To take only one example of the mixed findings on NCLB and high stakes testing, consider the recently concluded three-year study by the RAND corporation (Hamilton et al., 2007), conducted with financing from the National Science Foundation. Senior behavioral scientists found that there have been negative and positive consequences of NCLB on classroom teachers in the states of California, Georgia, and Pennsylvania. The researchers reported that "majorities of elementary and middle school science and math teachers in all three states report. . . making positive changes in the classroom by focusing on their states' academic standards" but that "sizeable percentages of educators [were] also spending more time teaching test-taking strategies," teaching more to the test, and "tailoring teaching to the 'bubble kids'—the students who fall just below the proficiency cutoffs." In general administrators thought that NCLB had led to improvement, whereas teachers expressed concern and advocated for growth models that track over time the individual scores of students rather than classes. As we shall see in Chapter 5, one reason administrators are sympathetic to testing, the data it generates, and various

practices connected to testing and data aggregation is that these provide control from a distance, a fundamental component of what is called audit culture.

Overall, then, educational researchers have found contradictory evidence about the impact of NCLB and high stakes testing. Nevertheless, many of the most well known psychometricians, such as Robert Linn (2003), have expressed strong criticism of the emphasis given to standardized tests and how they are used. Still, even though these respected educational researchers have received a hearing from politicians, they have had little impact. This is not surprising, in part because their own allegiances to the fields of psychometrics and psychology have tempered their criticism and led them to focus on improving the use of tests and data rather than urging a radical decrease in their use. But it is also in part because they have been very supportive of the agenda to professionalize teaching, and that agenda has relied on the discourse of standards and accountability.

It is not surprising that whereas we hear about the negative effects of high stakes testing on students and classroom practice, there is almost no critique of the high stakes testing regulating teacher certification or its use by teacher accreditation organizations as performance indicators for how well teaching candidates are doing.

Nor should it be surprising that although AERA's spring 2007 conference in Chicago devoted a great many sessions to NCLB, when in question and answer sessions I raised the issue of accountability and high stakes testing as they affect teachers, presenters avoided my questions. At the Dewey Society's keynote session David Berliner argued that educational autonomy had been "taken away from us [educators]." When I suggested that "we" had given it away by embracing accountability and standards, his response was, "Well, it's complicated." At the vice-presidential keynote address for Division K—the division of Teacher Education—Christine Sleeter blamed neoliberalism for the assault on teacher education. When I suggested that NCATE's practices were culled from neoliberal business practices, she demurred, saying she did not "know much about NCATE." Furthermore, it is clear from the newsletters published by AACTE that although critics of NCLB are given space to voice their concerns, there is also strong support for the tests and system of accountability when they are applied to teacher candidates.

It is crucial to understand, then, that although high stakes testing and NCLB receive a good deal of critical attention from politicians, grassroots organizations, think tanks, polling organizations, educational theorists, and educational researchers, that attention has not decreased the number of tests administered each year or the emphasis on making educational decisions based on the data generated by such tests. The failure of these three groups to slow down the drive to test has a good deal to do with the

current and foreseeable political situation in this country, but it also has to do with a failure to understand the larger context in which testing has such influence. NCLB has greatly intensified the use of standardized tests to make decisions about students, teachers and schools, but it is not the only contributor. Before we turn to the other contributing factors, let us look briefly at two other areas where high stakes testing have increased in importance.

Testing Teachers

One of those areas is teacher licensing. Although research on high stakes exams and NCLB's accountability system is voluminous, the literature is scant on the effects on teachers of high stakes tests. Those studies that do focus on the effects have found little relationship between teacher exam scores and other variables. In their 2005 study of teacher education, Marilyn Cochran-Smith and Kenneth M. Zeichner found that "there is little evidence that there is a relationship between teachers' scores on such tests and their teaching success (measured in terms of teacher behavior, principal ratings or student achievement)" (26). Such findings have not deterred educators from insisting on the value of these exams, nor has the racial gap on exam scores given proponents of testing pause.

In June of 2007 the Massachusetts Department of Education said it was going to investigate the large disparity between whites and minorities in scores on state teacher license exams. According to results of the 2005–2006 state teacher exams, 77 percent of white teacher candidates passed the writing exam compared with 48 percent of Hispanics and 46 percent of blacks. Eighty-six percent of whites as opposed to 62 percent of blacks and 61 percent of Hispanics passed the reading exam (MTEL Pass Rate Study Group, 2008). The exams continue to be administered.

The different effects on whites and blacks and Hispanics have received attention from a few writers, although much of the attention to this topic occurred in the 1990s, when the interest in identity politics focused on the political and social issues facing people of color. Keep in mind that in the 1990s the abbreviation *SES* referred solely to *socio-economic status*; today it is used more frequently to refer to *supplementary educational services*, mandated by NCLB. In their 1999 study, "What the Tests Tell Us about New Teachers," Latham and Gitomer of ETS and Ziomek of ACT found that teacher exams limited the entry of people of color into teaching. They went on to argue that raising minimum scores on teacher tests would dramatically lower the diversity of the pool of teacher candidates. Memory, Coleman, and Watkins (2003) reach similar conclusions. Of course, raising passing scores is exactly what occurred after the passage of NCLB. In addition teacher preparation programs were threatened with closure if passing rates fell below a certain percentage. In New York,

teacher preparation programs must show passing rates of at least 80 percent and that bar is to be raised. The National Council on Accreditation of Teacher Education also demands at least an 80 percent pass rate. This in turn has led programs to raise their GPA requirements in the belief that higher GPAs will lead to higher scores on the teacher exams, even though there is no evidence that this is the case.

Whether or not higher scores on tests or higher GPAs adversely affect people of color is debatable. There is evidence to support either position. What is not debatable is that these scores have little correlation with whether or not someone is a good teacher, unless, of course, one reduces teaching to the ability to test well, or the ability to compose a timed piece of writing, or, and the results here are ambiguous, to ensure one's own students test well. I do believe that teachers should be intellectually engaged and certainly familiar with their discipline, but neither of these is necessarily correlated with high grades on teacher examinations. Furthermore, there is some evidence that teachers minimally prepared in their area can have a dramatic effect. For example, the literacy brigades that swept across Cuba in the early 1960s and the Nicaraguan literacy campaign in the late 1970s achieved remarkable success using volunteers, often housewives, young kids, and government employees, who were trained in a very short time (Hanemann, 2005). Of course, given the role testing plays in the drive to professionalize teachers, one can only imagine what would happen if there were an all-out effort to enlist literacy volunteers as opposed to the efforts reaching down into high school to enlist young people in the military.

In 2003 the School of Education at Brooklyn College voted to raise its GPA requirement for entrance to teacher preparation programs out of a belief that this would itself be good but also to increase the chances of candidates passing the New York State teacher exams. I found it somewhat disturbing that at faculty meetings in the School of Education, a few of the same professors who reverently taught Paulo Freire were suddenly nodding their heads in agreement with "raising standards." Apparently one needed high test scores to be a good teacher.

On the other hand, from the point of view of administrators, the focus on test results is understandable. Low passing rates on teacher exams frequently receive screaming headlines about how uneducated teachers are put into classrooms and how dysfunctional teacher education programs are. Furthermore, low pass rates can mean shutting down programs. In 2003, journalist Kelly Patricia O'Meara, almost gleefully, reported on various teacher exam failures. She quoted from an article in the September 2001 *Chicago Sun-Times* that provided the dismal statistics on pass rates. "On the basic skills tests alone," she wrote, " 66,769 were tested during the same period and 2,132 failed at least one test, 414 failed three or

more tests, and 868 failed to pass any basic-skills test" (O'Meara, 2003). Other statistics she cited came from the National Commission on Teaching and America's Future (NCTAF), on whose board sit Linda Darling-Hammond, Richard Riley, and Ted Sanders. Although NCTAF certainly does not emphasize teacher licensing tests as the main component of the professionalization of teachers, they do see the alignment of tests and standards as an important part of that process, and they do argue that students of licensed teachers are more apt to score well on high stakes tests than those of non-licensed teachers.

Examples of Teacher Exams

What actually are the exams that teachers take? The most common ones are the Praxis I and II tests, given by ETS. Various states, such as California, New York, Florida, and Texas also have their own tests. Below are sample questions from a variety of exams.

I provide these examples to suggest not only their banality but also how they advance particular views of education that themselves promote testing.

New York Content Specialty Test in English

The following questions are from the New York Content Specialty Test in English required of all English teachers 7–12 (http://www.nystce.nesinc.com/PDFs/NY_fld003_prepguide.pdf, p. 28–37) . Each question is aligned with a specific standard.

Objective 0008): Understand writing for literary response and expression.

8. A writer wants to develop skill in creating dialogue for original plays. Which of the following exercises is likely to be most effective in addressing this goal?

A listening to a real conversation, taking notes on the content and tone of each person's remarks, and then converting the notes to a written dialogue
B making and studying an audio recording of dialogue from an actual or videotaped play
C creating a graphic organizer to analyze the key elements of a dialogue between two characters in a play by a well-known playwright
D free writing to generate ideas for a dramatic dialogue between two people

Objective 0011: Understand the use of reading comprehension strategies.

11. Which of the following pre-reading exercises would best promote a reader's comprehension of a difficult chapter in a content-area text?

A discussing the meaning of key vocabulary words in the chapter
B scanning the text's index and table of contents
C taking notes by copying the headers and sub headers in the chapter
D reading aloud the introductory paragraph of the chapter

Objective 0015: Understand the historical, social, and cultural aspects of literature, including the ways in which literary works and movements both reflect and shape culture and history.

16. A culture's mythology is most likely to include stories that focus explicitly on which of the following questions?

A How did the universe and human life begin?
B How can the average person achieve success and happiness?
C How do cultural norms evolve throughout history?
D How do political institutions shape cultural identity?

The correct answers here are all A, which is not terribly surprising, unless, of course, one finds free writing more useful in beginning to write a play or is in the habit of looking at the table of contents and index to get a sense of what the text is about or thinks that American myths about rags to riches, Horatio Alger, or the American Dream explain how to achieve success and happiness.

New York State Assessment of Teaching Skills – Writing Test

The following questions are taken from the New York State Assessment of Teaching Skills – Writing Test, an exam that must be passed for teachers to be licensed (http://www.nystce.nesinc.com/PDFs/NY_fld091_prepguide.pdf, p. 31).

Objective 0003: Understand how factors in the home, school, and community may affect students' development and readiness to learn; and use this understanding to create a classroom environment within which all students can develop and learn.

Teachers in a large urban junior high school are meeting to discuss the high drop-out rate in their district and strategies they can use in their classrooms to reduce the likelihood of their students' dropping out of school.

5. These teachers should be aware that effective instruction for students who are considered at high risk of dropping out of school should include a focus on learning opportunities that:

I minimize the use of assessment and encourage the students to define their own standards for acceptable performance.
II emphasize the application of instructional content in ways that clarify its relevance to the students' own lives and needs.
III allow the students to experience success and develop a sense of competence and confidence as learners.
IV address educational objectives mainly at the "knowledge" level rather than at higher cognitive levels.

A I and III only
B I and IV only
C II and III only
D II and IV only

The correct Response is C. The explanation is that connecting material to students' lives and allowing students who have not previously succeeded in school to succeed will enhance self-esteem and "can help motivate all students." Responses A and B include Option I, which contradicts research showing that "effective instruction should generally be based upon well-defined learning objectives and performance standards established by the teacher." Responses B and D include Option IV, which is considered incorrect because

> effective instruction for at-risk students should address educational objectives mainly at the "knowledge" level. Instruction that involves mainly knowledge-level thinking skills (e.g., defining, listing, recalling) is often less motivating than learning opportunities that require more complex cognitive operations (e.g., analysis, synthesis).

Although one can make an argument for the logic of either the correct or incorrect answers, what is striking is the assumption that all students respond the same way and thus that there is one correct way to teach. Of course, once such an assumption is accepted, the way is opened for the packaging and selling of strategies, methods, and techniques. It is also interesting to note how "knowledge" is defined here as "thinking skills"

as well as in terms of educational objectives and performance standards. As we shall see in Chapters 6 and 7 the language of audit has entered education through the portal provided by the learning sciences, and here we have an example of the often hidden behaviorist roots of the learning sciences.

Texas Educator Certification Tests

The following is from the Texas Educator Certification Tests in pedagogical knowledge for elementary teachers (http://texas.ets.org/assests/pdf/testprep_manuals/111 generalist4_8_55007_web.pdf, p. 74).

> 11. Ms. Lennox, a social studies teacher, and Mr. Vale, a reading teacher, work with a group of middle school students. Early in the school year, Ms. Lennox mentions that the students are having difficulty retaining information from their geography textbook. Which of the following would be the most appropriate suggestion for Mr. Vale to offer Ms. Lennox?
>
> A Have the students concentrate on transitional words to keep track of the relationship among ideas.
> B Encourage the students to focus on the last sentence of each paragraph to extract summary information.
> C Have the students read each assignment slowly, looking up definitions of unfamiliar terms.
> D Encourage the students to preview the text to anticipate its content and recall related knowledge.

The correct answer is D, and given the other choices, it certainly makes sense, although one can imagine many students who would do better with C. What is striking, again, though, is that the choices reduce teaching to skills and techniques, a one-size-fits-all approach that is perfectly consistent with the focus on testing.

Praxis II: Principles of Learning and Teaching 7–12

The following question is from the Praxis II: Principles of Learning and Teaching 9–12, the most widely used test for teacher certification (http://www.ets.org?Media/Tests/ PRAXIS/taag/0524/mc_questions.htm).

> 3. Which of the following is something that should almost always be discussed with students when they are given a type of assignment that may be new to them?

A Whether the students will be tested on the material covered in the assignment
B Whether the assignment will be graded according to the same criteria as other assignments with which the students are familiar
C What the students can expect to learn from doing the assignment
D What kind of prior experience the teacher has had with this type of assignment

The correct answer is C, and the reason given is as follows:

> The consensus among educational researchers is that students will learn only when motivated. To be motivated to learn, students must find academic activities meaningful and worthwhile and work toward learning goals (to gain knowledge and master skills) . . . By discussing learning goals with the students, the teacher helps them have motivation to learn.

The assumptions here are that there is one approach, regardless of who the students are, and that it's important to tell students in advance what and why we want them to know something, because that will apparently motivate students, although more likely it will make it easier to align learning with the tests. I shall return to the concept of motivation and the theory of learning in Chapter 7, but for now, suffice it to point out that according to the Praxis test designers, knowing what the teacher expects students to demonstrate at the end of a lesson will inspire them to demonstrate it. Do people really believe such buncombe?—apparently so, since results on these tests determine whether one can teach or not.

I included so many examples from these exams not to demonstrate how easy or how difficult they are but to show their ambiguity, the particular recipe-like approaches to teaching on which they rely, and the deadening effect of collapsing knowledge and classroom life into multiple choice questions. One would think that all those educators so up in arms about No Child Left Behind and high stakes testing would also be challenging the value of these kinds of teacher licensing exams, but they are not. Why they are not can be attributed in part to their own fears of chaos and desire for control, but also to status anxiety, to which test results, as measures, vaticinations, and insignia of professionalization appeal.

Perhaps the clearest example of how tests subtly guide teacher practice, no matter what critics of high stakes tests may say, is found in the performance outcomes required by the National Council for the Accreditation of Teacher Education (NCATE). The quote by Arthur Wise appearing earlier in this chapter gives some sense of the value NCATE places on tests,

but the real evidence is found in the new requirements that measure the success of a teacher preparation program not by content standards, not by teacher candidate performance in classrooms, but by the performance of the students of those teacher candidates. NCATE expects teacher preparation programs to prove that their candidates have a measurable effect on their students. The harsh realities of urban schools, the limited time, the numbers of students, the challenges facing any teacher, the lack of resources, all mean that there will be only way to measure that effect on students—tests. And tests produce numerical data that is easy to aggregate and disaggregate.

When those of us in the School of Education at Brooklyn College confronted this challenge, and at that point the switch by NCATE was only in its initial stages, the easiest way we found to address this requirement was by having teacher candidates do a pre- and post-test and then aggregate and disaggregate the data. Even if candidates were to have the time and resources to establish individual portfolios or more imaginative assessments for their students, these would necessarily have to be standardized such that they could produce or convert to numerical data. Tests are simply more efficient. They also provide numerical data.

Testing in Higher Education

But lest you think that the drive to test is limited to K–12 public schools or teacher licensing exams, what follow are some quotes that suggest otherwise. On June 14, 2007, U.S. Secretary of Education Margaret Spellings spoke in Boston to discuss the Secretary's Higher Education Act (HEA) reauthorization priorities. She warned that U.S. colleges and universities were in danger of losing their premier position in the world. According to Spellings's alarming statistics, "Ninety percent of the fastest-growing jobs require postsecondary education or training . . . and 60 percent of Americans have no postsecondary credentials at all (2007a)." She also cited alarming dropout statistics and the fact that "less than half of those who do graduate are ready for college-level math and science." Having provided a pretty grim picture, Spellings argued that colleges and universities must do a better job of measuring student learning, and must make the current system of accreditation emphasize student learning and achievement. She was insistent on the need for quantitative measures of learning and performance metrics. It's not hard to see the pattern: first frighten everyone with chilling statistics; next, insist we need to keep track of how students are doing; then insist that tests be used to measure and compare student performance. Not quite as Draconian as the systems she advocates for K–12 schools, her recommended system would allow colleges and universities to "set educational objectives tailored to their unique mission and determine how they should measure effectiveness."

In 2005 Margaret Spellings convened the Commission on the Future of Higher Education. It was chaired by Charles Miller, a billionaire businessman from Texas, close friends with George W. Bush and founder of the Texas Educational Policy Center at the University of Texas, Austin. According to Kelly Field in the *Chronicle of Higher Education*, that center "proved to be a training ground for the future heavyweights of national education policy" (2006, A17). Sandy Kress, Bush's key advisor on NCLB, was on the board. Miller's comments, remembered by Robert Zemsky (2007), a sympathetic member of the Commission, reveal Miller's views on testing and accountability for higher education.

> What was wrong with higher education, he observed, was that no one was really in charge. Rather than the market making colleges more disciplined, the pursuit of higher revenues was making higher education just plain wasteful. "Where's the accountability?" he asked.
>
> (B7)

Although the Commission's members did not all agree with the findings, the majority believed that among other things, higher education needed better tests for educational outcomes or learning outcomes, more data, and a unit-record system to track the progress of individual students (B9).

Recommendations for greater accountability, in part through testing, did not fare well with leaders of non-profit colleges and universities. In an attempt to ensure that testing and stringent accountability systems would be implemented in higher education, Spellings attempted to enact new accreditation rules that would hold accreditation bodies responsible if they did not require of the colleges and universities testing and the specification and measurement of learning outcomes. Pressure from higher education presidents and higher education organizations resulted in "a House of Representatives appropriations subcommittee attaching to its 2008 spending bill for education and health programs a provision that would prevent the Education Department from using any funds to propose or enact new accreditation rules" (http://insidehighered.com/news/2007/06/18/senators). Furthermore, the Senate vote in July 2007 to approve legislation to renew the Higher Education Act put on hold any attempts to mandate that higher education institutions implement testing, learning outcomes, and specific accountability systems.

For the moment then, higher education would seem to have escaped the regime of testing, data collection, and accountability required of K–12 education. But the drive to test hasn't stalled, and learning outcomes are already central to accreditation agencies' requirements. In fact, Spellings's threat of requiring accreditation agencies to enforce testing actually seems to have been unnecessary. At least two accreditation organizations have

done so voluntarily. The National Association of State Universities and Land-Grant Colleges (NASULGC) and the American Association of State Colleges and Universities (AASCU), which together represent 650 public universities, have approved a voluntary accountability system, the Voluntary System of Accountability Program, under which institutions post selected results from one of three tests: the Collegiate Learning Assessment (CLA), the Collegiate Assessment of Academic Proficiency (CAAP), and the Measure of Academic Proficiency and Progress (MAPP). The tests, purporting to measure critical thinking, analytic reasoning, and written communication, and would be given to a sample of first year students and seniors in order, according to Peter McPherson and David Shulenberger, President and Vice President of NASULGC and AASCU, to measure "value added." Even though some of the public universities have not bought into the voluntary system, University of Vermont's President Dan Fogel, who headed the NASULGC/AASCU panel on "core educational outcomes," said "he hoped his institution would be an early adopter of the system" although he knew it would be a hard sell. He said he thought it could be done though, "by appealing to what we all know—that a lot of our students are leaving colleges and universities without being competent writers" (www.insidehighered.com/news/2007/06/26accountability). Fogel is particularly supportive of the CLA. Here is a sample from that test (www.cae.org/content/pdf/CLABrochure 2008, 11):

> Writing prompt #1
>
> You are the assistant to Pat Williams, the president of DynaTech, a company that makes precision electronic instruments and navigational equipment. Sally Evans, a member of DynaTech's sales force, recommended that DynaTech buy a small private plane (a SwiftAir 235) that she and other members of the sales force could use to visit customers. Pat was about to approve the purchase when there was an accident involving a SwiftAir 235. You are provided with the following documentation:
>
> 1 Newspaper articles about the accident
> 2 Federal Accident Report on in-flight breakups in single engine planes
> 3 Pat's e-mail to you & Sally's e-mail to Pat
> 4 Charts on SwiftAir's performance characteristics
> 5 Amateur Pilot article comparing SwiftAir 235 to similar planes
> 6 Pictures and description of SwiftAir Models 180 and 235
>
> Please prepare a memo that addresses several questions, including what data support or refute the claim that the type of wing on the

> SwiftAir 235 leads to more in-flight breakups, what other factors might have contributed to the accident and should be taken into account, and your overall recommendation about whether or not DynaTech should purchase the plane.

Perhaps not surprisingly, given the content of the above writing prompt, the committee that drafted the Voluntary System of Accountability Program made explicit reference in its August 2006 draft statement (McPherson and Shulenberger, 2006, 2) to the relationship between its interest in accountability and testing and corporate agendas. The statement reads in part:

> In an era in which Thomas Friedman's book, *The World is Flat*, has served to raise awareness and to catalyze concern about the competitiveness of the American economy, . . . holding those keys [to the future] confers an even greater responsibility . . . to be even more accountable . . . The academy's commitment to accountability is real. Nevertheless we are prepared to supply more and better accountability information to our diverse stakeholders.

The reference to Friedman, as we shall see in Chapter 5, alludes to neoliberal policies and an agenda that values, as does Charles Miller, the wisdom of the marketplace.

It is interesting to note the similarities between the draft language and that found on the website of the Council on Competitiveness, of which AASCU is an affiliate. According to its website (http://www.compete.org/), the "Council on Competitiveness is the only group of corporate CEOs, university presidents and labor leaders committed to ensuring the future prosperity of all Americans through enhanced competitiveness in the global economy and the creation of high-value economic activity in the United States." The Chairman of the Council is DuPont's Charles Holliday and the Industry Vice Chairman is John Menzer of Wal-Mart.

Apparently private colleges and universities do not share the NASULGC/AASCU's commitment to testing. Just as independent K–12 schools are not subject to the heavy testing to which public schools must submit, the National Association of Independent Colleges and Universities proposed an accountability system that does not include results from specific assessments of student learning. Perhaps one reason is that the value of such tests is, to say the least, suspect, given that the scores of freshmen are compared with the scores of seniors. To do otherwise would cost too much money (Basken, 2008, A1). The system, does, however, rely on the language of standards and accountability.

I began this chapter with a quote from Avital Ronnell, who claimed that testing has restructured our everyday life, that it shapes how we

experience and construct reality. Certainly testing has restructured what it means to teach and what we teach. It is hard to remember a time when evaluation of students, the curriculum, and teachers was not done by tests and phrased in terms of numbers. It is hard to remember the time when the achievement gap was an indicator of socio-economic inequalities, rather than seen as its cause. Today we seem obsessed with questions such as the following: How well did our school do on the English Regents? What percentage passed the teachers exam? How do American students compare on the NAEP? What do students' exam results tell us about how well our teachers are doing? How can we prepare our students to improve their SAT, Regents, or Praxis II scores? What are the differences in scores between the races? How did our district, school, program rank compared to others? Are we number one yet? These become the educational questions in a school system driven by tests. These become the questions that drive education. And tests become the means to shock a system into compliance.

Educators and teachers have always used tests of various sorts, as both formative and summative assessments to provide some limited sense of what students know or can do at a particular moment in time. Tests have also been used as sorting and gatekeeping devices, but this latter use has a long history of abuse, as is clear from the history of IQ testing, the eugenics movement, and bias in admission to elite colleges and high schools. As one begins to see the extent of testing today, what becomes clear is the enormous influence tests have not only in determining the future of students, teachers, administrators, and schools, but also in shaping curriculum and classroom practice. The proliferation of tests and the weight assigned to their results have also created the need for services, products, and technical systems that not only offer to make sense of the vast quantities of data generated by these tests, not only offer "extra help" in negotiating the tests, but also offer to address the unavoidable failures the results will indicate. Consequently, with a boom in the testing industry has come a financial bonanza for those companies offering services and products that respond to the various needs indicated by the results on these tests.

The normalization of testing regimes has also begun to affect how we value our experiences. If the only measure of experience is a standardized test, it becomes increasingly difficult to employ a language attentive to the nuances of meaning, to the beauty of the idiosyncratic, to the variegated hues of experience. Perhaps this is not surprising given the Bush White House's simplistic division of the world into good and evil or the corporate world's bottom line or movie reviews that consist of thumbs up or down. But the drive to test does more than simply split the world into losers and winners. It also leaves us alienated and isolated. It abstracts us from the specificity of our situations, turning us into a portable number,

and locates us within a much greater universe of numerical numbers: we are one number among many. In quantifying our existence we, as flesh and blood creatures, disappear into a nether world: who am I other than my test scores? And yet, I know I am here—alone, anonymous. The only way to be recognized in such a world is to be number one. And the way to be number one is to test myself.

Our obsession with tests, scores, and comparisons arises against the background of enormous fears and uncertainties that have intensified in the last decade. Tests and measurement, the seeming objectivity of quantification, and the knowledge of where one stands in relation to others seem to promise certainty and security in a parlous world. It is, of course, a false promise.

Tests constitute one way the educational reforms shock the educational system. Extracting data from students, teachers and schools, they force our noses into the bottom line. Keeping us under constant surveillance, they make us vulnerable to centers of control beyond our reach, and, providing the illusion of objective accountability and meritocracy, they reduce education to right answers and information. Perhaps most important of all, high stakes tests erode the autonomy of teachers, for if tests determine the curriculum, and if tests tell us what is important to know as a teacher, and if these tests are fabricated by centers of control beyond the reach of teachers, then the teachers' passions, commitments, and wisdom count less and less. It was Milan Kundera who said, "The totalitarian world . . . is a world of answers rather than questions" (quoted in Januus, 1996, 231). We are not there yet, but one cannot help but wonder whether the shock of tests will soften up teachers and students such that they will all come to welcome scripted, packaged, and above all profit-making curriculum and teaching methods.

Unfortunately, even though many educators and teachers and even some politicians worry about the conflation of test results with education, even though they know and are at times vocal in opposing the reliance on tests, those same educators and politicians fail to see the connection between the drive to test and the language and practices of accountability and standards that they themselves embrace. They thus wind up supporting the widespread use of testing, as they worry over its spread.

The greater danger, however, is that these educators, who often tout tests as a way to protect public education from privatization, wind up opening the door to for-profit education companies. If Kaplan or Phoenix can show better test results, why shouldn't students go there? If all that counts are the numbers, whoever has the best bottom line is number one.

Tests, of course, do not alone constitute the transformation I am trying to map. In fact, as Ellen Condliffe Lagemann points out, the use of testing expanded throughout the twentieth century (2000, 40). But although

their use has always been widespread, and although technological advances and the increased value of tests have made their production and the profits garnered from them boom, the demand for tests had to be created. It is true that for some educators tests held the promise of a meritocracy, a promise that was never fulfilled (Lemann). But certainly today, teachers and educators are not clamoring for *more* exams, particularly standardized tests. Therefore, a need or demand for tests has been fabricated. As I'll discuss in Chapter 6, that demand has, in part, been a response to public fears of chaos in the schools. It has also emerged, as we shall see in Chapter 5, with the spread of audit culture. But most importantly the demand for standardized tests has been a result of educational policy, and it is to that policy that we now turn.

Chapter 4

The Language of Educational Policy

> Current curricular ideology reflects almost completely a technical value system. It is a means–ends rationality that approaches an economic model . . . The primary language systems of legitimation and control are psychological and sociological languages . . . This technical function is obvious during wartime, when schools and universities are taken over to serve national purposes.
>
> —Dwayne Huebner (1975a, 223–224)

> To the extent that actors have come to understand their situation according to a similar language and logic, to construe their goals and their fate as in some way inextricable, they are assembled into mobile and loosely affiliated networks . . . Common modes of perception are formed, in which certain events and entities come to be visualized according to particular rhetorics of image or speech. Relations are established between the nature, character and causes of problems facing various individuals or groups . . . such that the problems of one and those of another seem inextricably linked in their basis and their solution.
>
> —Nikolas Rose and Peter Miller (1992, 184)

As the School of Education at Brooklyn College pressed forward in preparation for the 2005 visit from NCATE, faculty members who were directly involved met with colleagues from other branches of the City University of New York. We heard again and again in those meetings as well as in our own faculty meetings not only how to meet the demands of the examiners but also justifications for those demands. The quotidian reminders about collecting data, aligning syllabi with standards, and developing instruments to monitor performance were frequently justified with appeals to the "national conversation" on educational policy and practices. It seemed more a monologue than a conversation. Whether one read the latest editorial or report, whether one attended AACTE's annual conference or a breakfast meeting with representatives from New York City's Department of Education, the same slogans, shibboleths, calls to action, and recommendations pullulated into mandates, regulations, and

requirements. These, in turn, materialized as tests, whether in the form of student exams or accreditation examinations to measure the health of teacher education programs.

The NCATE visit is now behind us, at least temporarily, but the univocal "national conversation" continues unabated, as does the regime of testing. Although NCLB and high stakes testing are the most palpable aspects of the transformation we are witnessing in education, they are embedded in, as they provide weight to and produce data for, a much larger network of discursive and non-discursive practices. This network is itself reticulated and imbricated with corporate policies and the language of the marketplace.

One of the two quotes at the top of this chapter was written by the renowned curriculum theorist and theologian Dwayne Huebner in the 1970s, but its prescience is clear today. Not only are we at war, but our national purposes increasingly are aligned with corporate interests. Policy statements, educational reforms, and innumerable articles on teaching and teacher education refer to the business sector and education's central role in preparing our youth for the global economy. Rarely does a statement come out about teaching or education or schooling that does not mention global competition or providing students with the twenty-first-century skills required for security in the global workforce. One would think that all education was vocational education. As we shall see in greater detail in Chapter 7, the language and practices constitutive of the educational transformation that is proceeding under the banner of standards and accountability do not come only from the corporate world and audit culture, which I examine in Chapter 5. They also come from the learning sciences, a field that Huebner was gesturing toward in his reference to "psychological and sociological languages."

To get a sense of how hegemonic the discourse of standards and accountability is I want to look at several influential policy statements that exemplify and advance the discursive transformation we are witnessing. The educational reforms that I address in this book have been promulgated by three different but certainly connected groups: first, federal, state, and local governments; second, those educational organizations that are affiliated or partnered with the corporate sector; and third, the educational establishment. The same names appear on the boards and committees of these groups, and although the members may occupy diverse political positions, they share a similar lexicon when it comes to pronouncements about education.

Although each of these groups may at times differ over purposes, projects, and methods, the language used to describe teaching, education, and teacher education is eerily similar. As Rose and Miller (1992) suggest in the other quote opening this chapter, these groups have become inextricably linked, and produce a univocal linguistic web of policy statements,

commission reports, articles, and editorials. One hears again and again the same phrases, terms, appeals, and rhetorical moves. Just as many Americans were swayed by the Bush administration's rhetoric in the lead up to the Iraq war, just as the media endlessly repeated administration claims, and just as self-defined liberal politicians and policy makers leapt on the bandwagon for war, so too have politicians, journalists, opinion makers, academicians, and self-identified progressive educators embraced the educational reforms that I believe have wreaked havoc on teaching and education.

Let us listen then to the drumbeat, the arrogant surety, and the tendentious rhetoric of educational policy.

Federal, State, and Local Government

In a speech given to the 2007 Presidential scholars on June 25, 2007, President Bush had this to say:

> You know, part of the problem we've had in our school system is for too often and too long . . . we had too many students who were victims of low expectations . . . We never measured; we never had any idea how the child was doing until it was too late . . . The philosophy behind [NCLB] is straightforward. It says the federal government should expect results in return for the money it spends . . . Measuring results . . . gives teachers . . . the key tool necessary to determine whether or not a curriculum needs to change, or whether or not a child needs to get special attention . . .
>
> Our ability to compete in the 21st century . . . global world . . . [means] we better make sure that we have a strategy aimed at making sure that we have high expectations and good results for every child in the United States, if we expect to remain competitive . . . Our high schools need to have accountability . . . If we want to be competitive, the high school diploma has to mean something . . . [W]e promoted the first federally funded opportunity scholarship program here in Washington, D.C. It basically said to low-income parents that here's some money to help you send your child to a private school or a parochial school, your choice.
>
> (Bush, 2007)

One can hear in Bush's speech many of the key words, rhetorical moves, and concepts that forward the educational reforms that constitute the transformation I am trying to map, so let us parse the passage. First, is the implication that schools are mediocre, not only because a high school diploma doesn't mean anything—note the conditional "If we want to

remain competitive, the high school diploma has to mean something"—but also because "[f]or too often and too long" they have been victimizing students. But who is victimizing the students? The implication is that it is the teachers, who, given the victim terminology, are at worst criminally negligent and at best a threat to their charges. They are a danger to students because they have low expectations, which we can read as low standards. So students are positioned as victims in need of rescuing from incompetent, if not bigoted teachers—remember "the soft bigotry of low expectations." Charging to the rescue is the federal government.

Now appears in the passage some confusion. If NCLB imposes its metrics, which are meant to show us how students are doing, how did we know students were doing so badly before? And if we did know, why do we now need the high stakes tests to tell us how they are doing? The unspoken assumption here is that the real purpose of tests is not to measure but to coerce and punish. In part this is consistent with George Lakoff's (2004) description of the "strict father model" he claims structures a conservative world view. But it also suggests a behavioral approach that, as we shall see in Chapter 7, slides into the discourse of the learning sciences.

Apparently we didn't know how poorly students were doing "until it was too late," but what is too late? Do unemployment figures or stagnant wages or high rates of incarceration reveal the educational tragedy befalling our students? If that is the case, the assumption is that teachers are responsible for these, and as we'll see, this is an assumption that runs through much of the "national conversation" on education.

It is hard to know exactly what "too late" means in this passage, but clearly now that the government has taken on the role of savior, things will change. However, the federal government is not entering the area of education because it is heroically committed to our social welfare or because it believes in the absolute necessity of supporting public education. It is insisting on performance outcomes because it spends money and wants to ensure its investment is producing a return: "the federal government should expect results in return for the money it spends." Now the conflation of the hero coming to the rescue and the investor demanding to know the bottom line and see a return is a rhetorical move of which Ayn Rand and Milton Friedman would be proud. The logics of the marketplace offer our salvation. So, too, does accounting. The analogy between investing in education and seeing dividends and investing in the market and making or losing money reduces education to cash, but the analogy will be used again and again without anyone questioning it.

Quantitative measurement offers a "tool" for teachers, and tools, we know, connote dependability, objectivity, and clear applicability. We frequently hear and read in the discourses of accountability and standards, as well as the language of the learning sciences, this reference to tools and tool kits. Tests, which will generate data, serve as one such tool. But

notice that the phrase is "measuring results," which suggests that in addition to the "tool" of tests, the "tool" of a data aggregation system will provide teachers with the information they need to develop curriculum and—here comes the appeal to the teacher's compassion—to determine if a "child needs special attention." A teacher's own knowledge, wisdom, experience, and intuition need to be replaced by the information provided by numerical data. As we shall see the metaphors of tool, tool kit and tool box for specific approaches a teacher takes in the classroom, as if teaching were carpentry, will regularly appear in the language of educational policy, platforms, and recommendations.

At this point in his speech, Bush raises the specter of global competition, a phrase that haunts the language shaping education today. If we (teachers) don't have high "expectations" (standards), we (the U.S.) will decline economically. Teachers who a moment ago were victimizers are now responsible for saving the nation's economy, and they can do that by using the "tools" provided by NCLB. But "schools" (teachers) must be held accountable, the implication being that they can't be trusted to use the proper "tools." Here there is another shift in the speech, as the link, however tenuous, is established between global competitiveness, the worth of a diploma, and school choice. "We" (the Bush administration) have the concerns of poor parents in mind. Whereas before they were without choice—that is not free—now they have the choice to send their kids to private schools. Only this latter point, as we shall see, is missing from the language of the educational establishment. Otherwise, these phrases, rhetorical moves, and logics resonate with the articulation of policies and recommendations emanating from organizations associated with approaches to education more progressive than those of the current administration: AACTE, the Carnegie Foundation for the Advancement of Teaching, the NEA, and NCTAF.

It is, of course, up to the Secretary of Education and her department to realize the President's vision. The website of ED states that its "mission is to promote student achievement and preparation for global competitiveness by fostering educational excellence and ensuring equal access." On May 22, 2007, Secretary Spellings elaborated on President Bush's education agenda, when she addressed the Manhattan Institute, a conservative think tank, perhaps best known for its policy statements promoting the extirpation of the welfare system. Secretary Spellings said:

> I want to take a step back and call to mind a few of the core beliefs that still drive us. One, there is such a thing as scientific research when it comes to education policy, and we must use it to inform our practices, policies, and investments . . . Just like in other fields, like medicine.

> Second . . . we have done more than any previous Administration to support a robust expansion of school choice options.
>
> Three . . . we are insisting upon local standards, for which schools must be accountable. And meaningful accountability must include deadlines and consequences . . .
>
> Four, teachers make the single biggest difference in getting results for kids . . . Now, we can find out what actually works because we are measuring. It's become a favorite refrain of mine, "What gets measured, gets done." Our high schools often fail to supply our students with the knowledge they need to be good citizens and equip them with the tools they need to succeed in college and in an ever more dynamic workforce.
>
> That's why we propose to emphasize science, math, and technology . . .
>
> We will also do more to link high school courses with college expectations and employer needs. And we propose to build on the progress of our nation's governors.
>
> (2007b)

Similar words, similar themes, but now other emphases have been added. In addition to the emphasis on standards, accountability, quantitative measurement, the economic purposes of a good education, parental "choice," and failing schools, there is, first, a focus on scientific research. Coming from an administration not known for its support of science, this is an interesting rhetorical move. On one level, it has to do with the administration's financial interests in promoting Reading First, which claimed an empirically validated approach to reading. The Bush connections to the McGraw-Hill publishers of Reading First and the $4.8 million they reaped are under investigation and one report on the conflicts of interest has already appeared (Manzo, 2007). On another level, the insistence on scientifically based research marginalizes qualitative research, which is more likely to acknowledge the complexity of emotional life in the classroom and the impact of social, political, and economic forces on students and teachers, not what conservative politicians want to hear. The appeal to science slides smoothly into the comparison of education to medicine, and here we see an analogy that runs through the discourses on education, whether emanating from the White House, NCTAF, or the Carnegie Foundation for the Advancement of Teaching. Finally, there is the call for schools to produce more scientists, mathematicians, and computer experts, a call that is somewhat suspect, given mounting evidence that there are not enough jobs for graduates in these areas, but also given that it comes at a time when the nation is at war. The militarization of national aspirations lends itself to an emphasis on STEM education, and,

as the Huebner quote suggests at the top of this chapter, war, whether cold or hot, enlists education in its objectives.

Second, Spellings mentions the alignment between college and high school, a theme that runs throughout the educational reforms I am analyzing. The drive to align or to create seamless transitions is not in itself dangerous, although it does suggest a confusion between education and control. What is destructive is that in order to have such alignment, one needs to standardize, and standardization erases the specificity, heterogeneity, and idiosyncrasy of location and of individuals' experiences.

The final claim that Spellings makes, one that reverberates throughout the language of educational reform, is that "teachers make the single biggest difference in getting results for kids." Poverty, racism, gender, families, and personal histories are erased in one stroke. Students are not responsible for their studies; teachers are responsible for students' learning. And notice that learning is collapsed into results. Such sentiments, I hesitate to call them ideas, would no doubt trouble most teachers. What is extraordinary, though, is that these same comments run throughout the writings and speeches of well known educators such as Lee Shulman, Linda Darling-Hammond, Daniel Fallon, and Sharon Robinson.

The insistence in Bush's and Spellings's remarks on the direct tie between education and economic concerns is not surprising, given the corporate involvement in the transformation of education I am mapping. The Bush administration's education policy was, itself, shaped with the help of various Texas business people, particularly from the Business Roundtable (Emery and Ohanian, 2004). NCLB and the Bush administration's education policies cull their language from the corporate sector, whose presence is palpable in the educational policy statements and programs promulgated at the state level, particularly by governors. For example, among the first five points in the Business Roundtable's 2000 position statement, *Essential Components of a Successful Education System*, a nine-point agenda for educational change, were:

1. STANDARDS. A successful system clearly defines in measurable terms expectations for what students need to know and be able to do to succeed in school, in the workplace, and in life . . .

2. ASSESSMENTS. A successful system focuses on results, measuring and reporting student, school and system performance so that students, teachers, parents and the public can understand and act on the information.

3. SCHOOL ACCOUNTABILITY. A successful system bases consequences . . . on demonstrated performance . . . and penalizes schools that persistently fail to educate their students . . .

> 5. SCHOOL AUTONOMY. A successful system gives individual schools the freedom of action and resources necessary for high performance and true accountability.
>
> (Business Roundtable, 2000)

You may recall that the Business Roundtable was established in 1972 by the heads of the 500 biggest companies in the U.S. to lobby against union rights, corporate taxes, and antitrust legislation, and for deregulation (Mickelthwait and Woolridge, 2004, 79). All of the Business Roundtable's essential components are evident in the statements by Bush and Spellings and, as we shall see, in those proffered by educational organizations and associations. Ironically, it would seem that the successful alignments to which educators aspire, alignment, for example, of syllabi with standards or of secondary education with higher education, pale in comparison with the alignment between the language of corporate America and that of educational organizations.

When we move to the state level, we find the same terms, concepts, rhetoric, and claims. It is important to note that starting in the 1980s, under Ronald Reagan's aegis, and continuing up to the present, the involvement of state governors in setting educational policy has grown dramatically, and with that growth has come greater involvement of the business community. The decline in federal monetary and rhetorical attention to schools during Reagan's first term resulted in state governors, particularly in the south, taking the lead in educational reform. Governors such as Bill Clinton of Arkansas, James Hunt of North Carolina, and Richard Riley of South Carolina established or were part of a host of governors' commissions on education that promoted standards and high stakes tests as keys to economic vibrancy and ways to attract businesses to their states. Larry Cuban (1993) captures the period well when he writes:

> Beginning in the early 1980's and extending into the 1990's . . . federal and state commissions, foundations and corporate sponsored reports, and state laws inundated the nation with a sea of words and waves of policies about the imperative need to raise standards, extract more effort from both students and teachers, and bolster the economy . . . Corporate leaders volunteered time and dollars to lobby for and enact school reform.
>
> (229)

As education increasingly found its *raison d'être* in economic excellence, the business community, which had always seen schools as handmaidens to its own competitive survival and which had strong support among state governors, emerged as increasingly influential in the nation's agenda

for education. This was particularly true in Reagan's second term, when Reagan discovered the political advantages of advocating for educational reform. Whereas Reagan's first term platform called for a dismantling of the Department of Education, by the end of his second term, federal and state involvement in education appeared as a portal through which business interests could develop the education market. A quarter of a century later, that portal has widened considerably.

State Government

The National Governors Association's (NGA) education wing is called the Center for Best Practices Education Division. According to its website, (http://www.nga.org/portal/site/nga/menuitem.8274ad9c70a7bd616adcbeeb501010a0/?vgnextoid=e9e8fbc137400010VgnVCM1000001a01010aRCRD) the "NGA Center for Best Practices' Education Division provides information on best practices in early childhood, elementary and secondary, and postsecondary education." The Center sponsors various summits and symposia, and from these issue various policy statements. Recent policy statements have focused on the inadequate education provided by high schools, the poor alignment between high school and college curriculum, the lack of accountability and high standards, and, above all else, how poorly prepared U.S. students are for the global economy, particularly in math and science.

The NGA's Report on High Schools

On the National Governors Association website we find that the "NGA Center for Best Practices can ensure the readiness of the nation's high school students for college, work, and citizenship." How? By making sure the major recommendations that formed the basis of the 2005 National Education Summit on High School's action report *An Action Agenda for Improving America's High Schools* have been implemented. The Summit was co-sponsored by Achieve, Inc., the Hunt Institute, the Business Roundtable, and the Education Commission of the States. *An Action Agenda for Improving America's High Schools* charged "America's high schools with failing to prepare too many of our students for work and higher education."

> Just ask business leaders and college presidents, who say they must spend billions of dollars annually to provide their employees and students with the skills and knowledge they should have attained in high school . . . The jobs of the 21st century require more sophisticated skills and knowledge . . . Unfortunately, American high school

> graduates are less prepared for college and work than their peers elsewhere.
>
> (NGA, 2005, 3)

Sound familiar? These claims of inadequate preparation, low graduation rates, failure to compete with students from other countries, and comparatively low college completion rates are backed up with numbers that a good many educators dispute (Berliner and Biddle, 1995; Bracey, 1995, 2003, 2004, 2006; Rothstein 1998, 2004). Nevertheless, these claims are used again and again, by governors, such as Tim Pawlenty, mayors such as New York's Mike Bloomberg, and editorial writers such as the *New York Times*'s David Brooks, to warn Americans about the dismal state of education. *An Action Agenda for Improving America's High Schools* uses these dubious or at best contestable statistics to argue that "deficits in basic skills cost businesses, colleges and under prepared high school graduates as much as $16 billion annually in lost productivity and remedial costs" (NGA, 2005, 4). How this last number is arrived at is unclear, but taken at face value it is handy for supporting the argument that the "failure to ensure students' readiness for postsecondary education and the labor market threatens to slow American productivity, lower our standard of living, and widen the gulf between rich and poor." To avoid these dire consequences

> Governors, business leaders and education officials must ensure *all* high schools facilitate *all* students' successful transition to postsecondary education and the workforce.
>
> (NGA, 2005, 4, italics in original)

Important to note here is the refrain of "all students." "All students" often refers in general to students who are not white, able-bodied, middle-class males, and frequently refers in particular to black and Latino/a students. Appearing again and again in policy statements, regulations, standards and educational discourse, the term functions to transform the progressive idea that every student should have the opportunity to learn into a demand that every student must learn, which means perform well on tests. If "all students" don't test well, their teachers and schools will be held responsible. Equality of opportunity, which would raise unsettling questions about resources, structures of privilege, and class and race, is replaced with equality of results, which of course is logically impossible, just as is the idea that all students in Lake Wobegon are above average. Why? Because if everyone did well on the tests, then the cry would go up that the tests were too easy, reflected grade inflation, and revealed the "dumbing down" of the curriculum, but if students fail, the cry goes up

that the teachers are failing our students. It's a catch-22 that distracts us from glaring inequalities of opportunity.

According to *An Action Agenda for Improving America's High Schools* governors must bring together business leaders, state officials, and local educators to ensure high standards, which, the report suggests, business leaders can help establish, because they know what skills and knowledge students need to be successful when they leave high school. Given the daily reports of corporate malfeasance, corruption, and cronyism, ranging from Enron to the subprime mortgage crisis to Halliburton's war profiteering to Tyco's and Dynergy's scandals, and this is only a drop in the bucket, one might wonder exactly what skills business leaders have in mind.

In order for the reforms to be successful, governors, business leaders, and secondary and postsecondary educators and officials, according to the report, must work together to set measurable goals for improving the performance of high schools and colleges and universities. Of course, to realize these goals a sophisticated data system needs to be put in place that can "collect, coordinate and use secondary and postsecondary data." As the report, echoing Margaret Spellings's remarks, makes clear, "an effective accountability system also must include consequences for schools that fail to improve on their own" (17). Finally, the report proposes that states set up "a permanent statewide commission or roundtables to . . . develop a single education governing board and state education agency with authority over early childhood, elementary, secondary and postsecondary education" (20).

The language in *An Action Agenda for Improving America's High Schools* is typical of the policy statements emanating at the state level and echoes and elaborates the language and practices called for at the federal level. Often the language and logics of these reports personalize the recommendations by focusing on how such actions will help specific students who are positioned as victims or on particular teachers who, through their adoption of the recommendations, have helped all children learn. This personalization masks as it accompanies the reification of relations between teachers and students, as these are reduced to the use of "tools," accountability systems, and production of results.

The NGA Report on Higher Education

The National Governors Association does not confine itself to policy statements about PK–12 schools. It has issued several reports on higher education, such as *Innovation America: A Compact for Postsecondary Education* (NGA, 2007) that focused on "strengthening our competitive position in the global economy by . . . giv[ing] governors the tools they need

to improve math and science education [and] better align postsecondary education systems with state economies" (i).

Assembled were "a bipartisan task force of governors, corporate CEOs, and university presidents" who worked with the NGA Center for Best Practices, in an advisory capacity to "ensure that every state—and the nation—is equipped to excel in the global economy" (i). To get a sense of the composition of the panels connected to NGA, here are the members of the *Innovation America* task force: Arizona Governor Janet Napolitano and Minnesota Governor Tim Pawlenty were the co-chairs. The following were the academic leaders: Dr. G. Wayne Clough, President, Georgia Institute of Technology; Dr. Michael M. Crow, President, Arizona State University; Dr. Shirley Ann Jackson, President, Rensselaer Polytechnic Institute; Dr. Judith A. Ramaley, President, Winona State University; and Dr. Mary Spangler, Chancellor, Houston Community College. The following were the business leaders: Dr. Craig R. Barrett, Chairman of the Board, Intel Corporation; Jamie Dimon, CEO, JP Morgan Chase; Charles O. Holliday, Jr., Chairman and CEO, DuPont; John Thompson, Chairman of the Board and CEO, Symantec; Kevin Turner, COO, Microsoft; and Margaret C. Whitman, President and CEO, eBay. Five educators and six corporate executives making policy decisions about educating our country's youth—one can only wonder if the same numbers apply when those corporations make marketing decisions that affect our nation's youth and the economy.

The task force, not surprisingly, focused mainly on ensuring U.S. global competitiveness through science, technology, engineering, and math (STEM) education. Their report concluded that governors, industry, and colleges and universities must work together to transform postsecondary education by using an accountability system with sanctions to ensure the twenty-first-century postsecondary system meets the economic needs of the state. It's important to note the language used. For example, governors should consider, when undertaking postsecondary transformation "[i]n the new knowledge-based economy . . . that the postsecondary education system is one of the state's most valuable economic assets" (17). Colleges and universities

> play a critical role in regional and state economies through the production of workers in critical occupations, with a special focus on STEM teachers; and [the] commercialization of new knowledge.
>
> (17)

States can enjoin colleges and universities to adopt the policies by applying pressure to their budgets. Budgets, according to the task force,

> should be viewed as a tool for change . . . Governors can also encourage the enactment of legislative policies that allow them to use public R&D dollars to disseminate and commercialize new knowledge . . . Special attention should be paid to research universities and their role in commercialization and entrepreneurship.
>
> (17)

Here, for the first time, we get a glimpse of the way state funds can be used to pressure colleges and universities, and, it goes without saying, K–12 schools, into complying with policies catering to business interests. Certainly the recommendations reveal the imprint of those corporate executives listed above; the influence of the academic leaders is not as evident.

I devoted so much space to reproducing sections of both of these long reports for four reasons. First, the reports reveal how federal policy, with its language of standards, accountability, data management, learning outcomes, and preparation for global competition, is broadened and elaborated at the state level. It is at the state level that various regulatory mechanisms are imposed. For example, New York State's changes in its teacher certification requirements reflect many of the policies proposed by the federal government.

Second, although corporate interests were clearly involved in the formulation of No Child Left Behind, they were not explicit. At the state level, the business community is deeply and visibly involved in the formulation of policy, and its involvement is clear in the language used to articulate the policies. That involvement has been incredibly lucrative for corporations invested in educational resources, such as Pearson Education, Kaplan, and McGraw-Hill, and for individuals, like Sandy Kress, an architect of NCLB, who has made millions lobbying for some of those companies (Emery and Ohanlan).

Third, the outlines of a broader economic policy begin to be visible in these reports, which put so much emphasis on preparation for the work force, accountability practices that often increase dropout rates, and the preparation of scientists, mathematicians, technologists, and engineers. Given that several reports show the greatest increase in jobs is in the service sector, that the offshoring of jobs will continue, and that there is a tight market for jobs requiring background in STEM disciplines, one wonders what effect on wages, and therefore profits, this policy might have. One might speculate that one way to compete with scientists and engineers in India and China is to ensure there is an abundance of job candidates here, thus depressing wages and increasing profits.

Finally, the report reveals not only the assumed expertise of business people in addressing educational issues, but also the way corporate practices exert authority by seeming to empower individuals and local

schools. In the next chapter, I shall examine in detail these practices, in which control is exerted through abstracted procedures that are imposed for the evaluee's or auditee's own good, practices that in the name of empowerment and choice strip individuals of power. For now, it's important to understand the constant urging from all levels of government for these practices to be implemented in schools, the pervasiveness of the language used to promote these practices, and the alignment between that language and the language of the marketplace.

Let me add that even if no self-interested motives can be attributed to business and corporate leaders who have involved themselves in public education, the assumption that public schooling is a business and responsible for vocational preparation and national economic competitiveness and that business people therefore best know how to organize and run educational institutions is at the very least a questionable assumption. If the assumption is not questioned and, furthermore, not refuted, we teachers and educators are doomed to the role of middle managers, bureaucratic clerks, white-coated lab technicians, and nannies.

The Educational Institutes, Centers, and Organizations and their Corporate Partners

Whereas the federal and state governments have certainly furthered the transformation I am trying to map, a variety of centers, institutes, alliances, and organizations focused on education, several of which are for profit and many of which are only one or two decades old, have also done much to advance this transformation. Some of the better known organizations, with their founding dates next to them are: Achieve, Inc. (1996), Alliance for Excellent Education (2001), the Education Sector (2005), the Institute for Educational Leadership (1964), the James B. Hunt Institute (2001), the National Center for Education and the Economy (1989), the National Center for Public Policy and Higher Education (1998), and New American Schools (1991), and the older Aspen Education Program (1974).

The growth in education organizations over the last twenty years has accompanied the opening up to capital of the education market. These organizations often have interlocking boards of directors, are funded by the same corporate sponsors, and produce reports whose language and ideas are almost interchangeable. Furthermore, although these organizations do not themselves claim a political ideology, as opposed to say the Heritage Foundation, the Cato Institute, the American Enterprise Institute, the Hoover Institute, or the Brookings Institute, all of which spew out their own position papers on education, their views on education and the language they use often echo those of the more explicitly conservative, neoconservative, and neoliberal organizations. Let's take a look at

three of these organizations: the Hunt Institute, Achieve, Inc., and the National Center for Education and the Economy.

James B. Hunt Institute for Educational Leadership and Policy

The James B. Hunt, Jr. Institute for Educational Leadership and Policy was established in 2001 by North Carolina's previous four-term Democratic governor, James Hunt, who had done so much to bring "accountability and standards" to that state. Hunt also founded the National Board for Professional Teaching Standards, served on the Spellings Commission on Higher Education, and with Linda Darling-Hammond co-founded the National Commission on Teaching and America's Future. The executive director and CEO of the Institute is currently Judy Rizzo, who was until recently the Deputy Chancellor for Instruction at the New York City Board of Education. On the board sit some well known individuals including: Kati Haycock, who is also president of the Education Trust, the education historian Diane Ravitch, the journalist William Rasberry, State Farm's CEO, Edward Rust Jr., who is a member of the Business Roundtable and was a member of George W. Bush's transition advisory team, and the governor of Arizona, Janet Napolitano, who co-chaired *Innovation America*'s task force.

In April 2007 the Institute held its fourth annual Governors Education Symposium. The title of the symposium, which signals its allegiance, was *Education: The Economic Engine of Global Competition*, and it was meant to provide "governors an opportunity to discuss and fine tune their education policy agendas alongside leading policy experts, researchers, and most importantly, a group of current and former governors" (Hunt Institute, 2007, Introduction, 2). During the symposium, discussants heard keynote addresses, some from professors in education, and discussed college readiness, K–16 alignment, affordability and accountability in higher education, extra learning opportunities for students, and teacher compensation and performance.

Several points emerged from the conference, all of which support the themes, language and practices advanced by the NGA, ED, and the President. Basically, the participants concluded that our higher education system is falling behind those of other countries; we need to better prepare students for success in postsecondary education and the workforce; K–12 education must be aligned; we need more rigorous standards and accountability; we need to expand choice and experiment with merit pay for teachers; we need to mandate data aggregation systems. Excerpts from three of the keynote addresses at the symposium give a flavor of the Hunt Institute's agenda. According to the keynote address of Tom Tierney, chairman and co-founder of the Bridgespan Group, and director of eBay, "The quality and world market share of American higher education

is rapidly eroding" (Tierney, 2007, 4). The reason? "Our education system is fragmented . . . and governors and resource experts . . . need to ensure that K–12 standards, curriculum, and assessments are aligned" (5).

Even though these claims are contested, Tierney was not the only speaker at the symposium to emphasize them. Three professors also did. Bill Schmidt, a distinguished professor of educational psychology and measurement at Michigan State, Michael Kirst, a Stanford University professor of Education and Business and member of the Commission of the States, and Dan Goldhaber, a research associate professor at University of Washington, spoke on helping more students "achieve the dream." Their comments, however, echoed the suggestions and, of course, language we have come across so far: better aligning and sequencing "between K–12 content standards and college expectations; establishing a state coalition to set standards for the nation" by identifying "fundamental concepts that students are expected to know at the postsecondary level and in the workforce," and "developing intensive partnerships between K–12, higher education, and business leaders so that textbook and testing companies and schools of education align with this common set of streamlined, focused standards" (Hunt Institute, 2007, 6). The last recommendation renders explicit the relationship between alignment, standards and corporate interests, and the idea of establishing "fundamental concepts" not only repeats E. D. Hirsch's cultural literacy program, but, as we shall see, resonates with the structure of the discipline views circulating within the learning sciences.

As an example of the kind of work these educators are advocating, they mentioned the New England Common Assessment Program (NECAP), whose standards were reviewed, interestingly enough by Achieve, Inc., the next group we'll look at. According to Professor Kirst, NECAP "has produced a high quality set of standards, assessments and supporting materials" (2007, 4). NECAP, administered in my home state of New Hampshire, consists of a writing section, short answer questions in math, and reading comprehension and vocabulary. It is indistinguishable from those sampled in Chapter 3.

Another model program Kirst cited is the American Diploma Project (ADP), a group of 29 states working, with Achieve, Inc., to "benchmark their state standards, assessment and accountability systems against the best in the country and the world." ADP hopes to promote rigor in the content of its high school Algebra II courses, which, according to Kirst, "can be a significant predictor of college readiness for success" (2007, 5). He referred to two studies by the U.S. Department of Education that claim the highest level of math taken in high school is the most powerful predictor of whether a student will ultimately earn a bachelors degree. Whereas educators, in general, accept that a correlation exists between zip codes and test scores, to say that high school math can predict graduating

college is at best a questionable correlation. To claim it has predictive validity is to suggest that we can accurately predict whether someone will graduate college based on what math course that person took in high school.

Dan Goldhaber (2007, 12), restating what has become one of the most common assumptions in education, claimed that teachers were the single most important factor influencing student achievement, and suggested that states experiment with differential pay scales for teachers, another way of saying merit pay.

A picture of the successful student and teacher emerges in these remarks. The student is good at math and science, tests well, is competitive, and will advance the national interests in the global economy. The teacher, needing money, will benefit from the corporate model of pay based on results, and, following curriculum collaboratively shaped by business men and educators, will subject her students and herself to the practices of accountability. Together these two, one stereotypically male, the other stereotypically female, and in terms of numbers actually female, are the virtualized figures of corporate-driven policies, which speak in one voice. Reading through the literature of the Hunt Institute and following the links among board members and their affiliations with other educational organizations leads to an inescapable conclusion: these institutions and the businesses that are so much a part of them are perfectly aligned in policy and language.

Achieve, Inc.

Several of the speakers at the Hunt Institute's symposium mentioned Achieve, Inc., and it was one of the sponsors of the gathering. Achieve, Inc. was founded in 1996. Its board consists of six governors (three Democrats and three Republicans) and six CEOs. The Board is co-chaired by Michael Easley, governor of North Carolina, and Craig Barrett, CEO of Intel Corporation. The Chair Emeritus is Louis Gerstner, ex-CEO of IBM. On the board also sit CEOs of Nationwide, Prudential, Inc. and State Farm – Ed Rust appearing again. When one reads the position papers, policy statements, mission statement, and publications put out by Achieve, Inc. one hears a familiar litany of problems and solutions.

> The global economy is changing the nature of work and the kinds of jobs our young people will enter . . . Research reveals that the ticket for student success in work or future learning is taking courses in math beyond Algebra II and advanced courses in English and science . . . [Very few] states have testing systems with components that assess whether or not students have mastered college- and work-ready knowledge and skills . . . [M]any high school graduates enter

> postsecondary education and work unprepared for the demands of learning and earning.
>
> (Achieve, Inc., 2008)

It's not surprising then that a study released in 2004 by Achieve, Inc., entitled *The Expectations Gap: A 50-State Review of High School Graduation Requirements*, found that in order to be prepared for work and college, students not only need four years of math and English, with an emphasis on communication skills, but also need work in data analysis and statistics. The report goes on to congratulate the states that have college/work prep curriculum: Arkansas, Indiana, and Texas. Apparently the curriculum hasn't helped unemployment rates, which in Arkansas in 2007 remained at 5.9 percent, well above the national average of 5 percent. Indiana's 4.6 percent and Texas's 4.5 percent are below the average but equal to or above 26 states' rates (U.S. Department of Labor Statistics, 2007).

Achieve, Inc. has put particular emphasis on its work with benchmarking, offering "benchmarking reports with objective analyses, customized tools and specific recommendations," and notes that "costs are calculated on a fee-for-service basis" (http://www.achieve.org/node/322). Like so many of the other organizations that focus on remedies for the educational problems they elaborate, Achieve, Inc. assumes that one of if not the main purposes of education is job preparation. One way schools can prepare students is by purchasing those benchmarking systems.

The National Center on Education and the Economy

Perhaps the National Center on Education and the Economy (NCEE) has achieved the most publicity of the three groups under discussion here. It also encapsulates the deep penetration of education by corporate interests and the extent to which corporate executives and some educators hold interlocking board membership. NCEE is the majority stakeholder in its subsidiary, America's Choice, which is one of the nation's largest K–12 improvement programs, and offers instructional systems in literacy (such as Ramp Up), mathematics, and school leadership. America's Choice is a for-profit organization, and will work with schools, according to the NCEE website, to "align standards, instruction, and assessments, using regular evaluations of test results to guide instruction" (2004). The mission of the National Center on Education and the Economy reads in part:

> Either we do a much better job of giving our young people the world-class skills and knowledge they need to compete in a swiftly integrating world economy, or we condemn them to working ever longer

> hours for ever lower pay . . . NCEE is committed . . . to . . . training, professional development, technical assistance and [providing] materials that professionals in the system need to implement the proposals we make.
>
> (http://www.ncee.org/ncee/mission/index.jsp?setProtocol=true)

The recommendations NCEE commits to realizing are found in its 2006 report *Tough Choices or Tough Times: the Report of the New Commission on the Skills of the American Workforce* (Tucker, 2006). Receiving broad coverage, including the cover story in the December 18, 2006, issue of *Time* magazine, entitled "How to Build a Student for the 21st Century" (Wallis and Steptoe, 2006), the report called for a dramatic redesign of the nation's education and training systems. It is that report that sent Diane Ravitch into a panic about the attack on public education, since it recommended that independent operators would take charge of schools under direct arrangements with the states. The language in the report echoes the language we have heard before.

I won't try to summarize the report here, other than to say that it could have come right out of Thomas Friedman's *The World Is Flat*. The report presents a dire picture of the U.S. workforce, arguing that it is ill prepared to face a global economy and fend off the threats posed by India and China. It blames this situation on the mediocrity of the U.S. educational system. The solution to this imminent catastrophe, one which sounds remarkably like that warned of in *A Nation at Risk*, entails developing standards, benchmarks, and performance contracts, holding students, teachers, and schools accountable, subjecting schools to a "competitive, data-based market," and making teachers and schools highly entrepreneurial.

What grabbed the attention of several educators, including Ravitch, were two of the report's recommendations. First, the report called for a board examination to be given to all tenth graders. The results would be used to sort students into different tracks: vocational, community college, four-year colleges. Second, schools would be operated by independent contractors, and local boards would be responsible for writing performance contracts. Although the report makes several other recommendations, these two generated the most concern among educators who have embraced standards and accountability. It is interesting that Tucker's NCEE, which is simply following to their logical conclusion the ideas so many educators have embraced, should come in for such criticism. Of course not all educators have rejected the recommendations. The president of Teachers College at Columbia University, Susan Fuhrman, the president of the Thomas B. Fordham Foundation, Chester Finn, and the

president of AACTE, Sharon Robinson, agreed that the report was worthy of serious consideration. Furthermore, one educator who has been extremely supportive and collaborative with Tucker is Lauren Resnick, a well known psychologist and past president of AERA. A celebrity figure in the learning sciences, Resnick's belief that we now know how kids learn was easily translated by Tucker into packaged educational programs, such as Ramp Up to Literacy.

Before closing this brief discussion of NCEE, it is worth noting two additional pieces of information about the Commission and the Center. First, the board membership of NCEE and America's Choice consists mainly of corporate leaders and politicians. Michael Dolan, former CEO and chairman of Young and Rubicon, is the new chairman of America's Choice. On NCEE's executive committee, board of directors, and list of life directors are CEOs or chairmen from the Chicago Mercantile Exchange, Scott and Stingfellow, Murphy Oil Corporation, Ford Motor Credit Company, International Paper Company, General Mills, Great Court Capital, International Business Enterprises, Wells Fargo & Company, Verizon Maine, Pfizer, State Farm, Sage Asset Management, Camilli Economics, the McGraw-Hill Companies, UBS Wealth Management, Forvest Trust, the Federal Reserve Bank of Minneapolis, and Moody's, and five professors whose disciplines are either economics or political economics. Although the board of trustees has a few educators, for example, Thomas Payzant, Lewis Spence, and Guilbert Hentschke, it too is filled by business executives.

The other piece of information that is of interest to teachers who work in New York City is that Chancellor Joel Klein was on the commission and was reported as saying, "If you align the incentives properly . . . you will see much more dynamism, much more entrepreneurship, and much more differentiation, which is not what you see in public education" (Seymour, 2006).

As one reads through the policy statements, programs, mission statements, publications, conference proceedings, and symposium presentations promulgated by these institutes, organizations, and councils, the same statistics, the same research, the same warnings, the same solutions are repeated over and over again. Striking is that those statistics about dropout rates, student preparedness, college success, our students' academic performance compared with that of students from other countries, the number and kind of jobs that will be available in the future, the correlation between test results and later academic or job success, and the low caliber of teachers, schools, and students are taken as truth, when in fact there is enormous disagreement about them. But their repetition and the fact that they come from so many quarters eventually creates a reality of its own. Just as the media propaganda in the run-up to the Iraq war

did, the incessant drumbeat produces a kind of numbness and eventual attitude of "going along to get along."

If the federal government, the Department of Education, state governors, the corporate sector, and the innumerable educational organizations that are closely linked to state governments and corporations were the only centers promoting the discourse of accountability, standards, data aggregation, learning outcomes, global competitiveness, and empowerment through choice, if they were the only ones holding mathematics and science education up as in need of urgent attention, if they were the only ones issuing dire warnings about our educational failures, teachers and educators might be able to ignore them or at least find solace and inspiration from a counterdiscourse in our own field. We can't. When we turn to the educational organizations that constitute the field of education, we find the same rhetoric, the same language, and the same words. It can feel quite suffocating, and the reality is that the excerpts provided here are only small examples of the transformation I am trying to map. What is crucial to note, however, is how monotonous the language becomes after a while, how it ceases to hold one's attention, and yet how, when it is used again and again, it seems to offer a sense of action, of control. It also provides educators with a sense of connection to government policy makers and politicians. The educators who sit on boards with CEOs and politicians can enjoy the sense that they are now with the movers and shakers, and can hold onto the illusion that at last educators are being treated as professionals. Perhaps that is one reason the educational establishment embraced the language and practices of accountability and standards.

The Educational Establishment

By educational establishment I refer to the following: the American Association of Colleges for Teacher Education (AACTE), the American Educational Research Association (AERA), the Association for Supervision and Curriculum Development (ASCD), the Interstate New Teacher Assessment and Support Consortium (INTASC), the Carnegie Foundation for the Advancement of Teaching, the National Board for Professional Teaching Standards (NBPTS), the National Council for Accreditation of Teacher Education (NCATE), the National Commission on Teaching and America's Future (NCTAF), and the National Education Association (NEA). There are certainly other organizations, such as the various professional associations, for example NCTE or NCTS, that constitute what I am calling the educational establishment, and there are educational publications, such as *Education Week*, that are influential, but I list these because of their membership numbers and their national visibility. These are the organizations that set policy, provide direction, and purport to represent the views of teachers and teacher educators. These organizations

represent not only the majority of teachers and administrators and also schools of education but also the dominant views about education and teaching. Their words are often taken for the national conversation on education. Remarkably, except for the emphasis on vouchers and privatization, the policy statements and language produced by the educational establishment echo what we have heard from the federal, state, and local levels and from educational organizations partnered with corporate America.

There is the same demand for consistent standards that are aligned with performance objectives, for accountability measured by data produced by tests, for scientifically based practices modeled on medicine, and for education that prepares students for the global economy. There is the focus on providing students with twenty-first-century skills, on ensuring all students learn, and on touting the teacher as responsible for that learning. To begin to get a sense of how consistent the language and practices are with those we have been surveying, I want to focus on five of the organizations: AACTE, NCATE, NCTAF, NEA, and the Carnegie Foundation for the Advancement of Teaching.

AACTE

In his report on the 2007 AACTE Conference held in New York, Gordon Kirk, the academic secretary for the Universities Council for the Education of Teachers (UCET), AACTE's British sister organization, summed up the conference this way:

> [T]he predominant theme of the conference as a whole . . . was clear: How was the effectiveness of schools, of teachers and of teacher education to be assessed? . . . Effectiveness is defined in relation to these targets: effective schools are those whose pupils demonstrate the most significant learning gains; the most effective teachers are those who deliver these gains; and the most effective teacher education programmes are those which produce the most effective teachers as defined, all of the assessments deploying value-added measures. AACTE has publicly committed itself to this position. In its evidence to the NCLB Commission, circulated at the conference, AACTE recommended that "NCLB authorize sufficient funding for all states to develop and implement longitudinal data systems with the capacity to track the performance of individual students from year to year, link those students with their teachers, determine the value-added of teachers over the years, and link those teachers to their preparation programmes". In adopting such as stance, AACTE is following those who maintain that the best way of responding to criticisms of teacher education is to provide evidence of its effectiveness.
>
> (Kirk, 2007, 2–3)

As the conference's keynote speaker, Michael Hudson, said, echoing Margaret Spellings, "[W]ithout data you are just another person with an opinion" (quoted by Kirk). Hudson, by the way, an ex-staffer in the Texas Senate and U.S. Congress and the owner of a political consulting and fund-raising firm, is now the acting president of The National Center for Educational Accountability, NCEA, which is partnered with the Just for Kids Data System, whose founder Tom Luce is a Bush appointee and sits on the board of directors of Dell, Inc. It's no wonder data gets respect.

Sharon Robinson, AACTE's president, finds in the push for accountability the possibility for teacher education to gain some professional respect. In response to Spelling's Commission on Higher Education, discussed above, Robinson suggested that "[t]eacher educators have the leadership credentials to be resources to other divisions of their institutions regarding the development and use of growth models" (Robinson, 2006a, 2).

> [T]he teacher education profession is in many respects *leading the way* in assessing student learning outcomes, in quality control, and in accreditation reform.
>
> (Robinson, 2006b, 1–2, italics in original)

Confronted with scathing, and some would say exaggerated if not self-interested criticism of teacher education by, for example, Arthur Levine's Education Schools Project, the National Council on Teacher Quality, Louis Gerstner's The Teaching Commission, and an education task force from the Center for American Progress, AACTE's position is "Let's roll up our sleeves and get to work" (Robinson, 2006c) or, as Les Sternberg, AACTE member and Dean of Education at the University of South Carolina, stated before the House of Representatives in 2005, "We are seeking more accountability, not less" (Lederman, 2005).

AACTE's rush to support standards and accountability is understandable given the threat of privatization on one hand and withdrawal of government funding on the other. Although staving off privatization seems to be a driving motive behind the AACTE's adoption of many of the educational reforms promoted by the Bush administration, it does seem odd that they are pushing teacher education programs to comply with the regulatory language forged by businessmen and their political partners. As I shall argue in the next chapter, it is that very compliance that opens the door to corporate interests and the intrusion of the marketplace into education.

It should not be surprising that, given AACTE's embrace of the language and practices promulgated by the Bush administration, state governors, and corporate interests, the organization would also be a strong supporter of NCATE, on whose board Sharon Robinson sits. At the annual business

meeting held during the 2007 conference, AACTE approved by a slim margin a motion calling for a single accreditation agency, NCATE (Kirk, 2007, 4). AACTE, by the way, contributes 5 percent of NCATE's total budget (Honawar, 2008).

NCATE

The National Council for the Accreditation of Teacher Education not only elaborates on the language of accountability and standards advanced by the Bush administration and corporate America, but instantiates it in practice. Just as high schools are increasingly forced to adopt or purchase advanced data aggregation and tracking systems in order to comply with regulatory agencies, just as colleges and universities are increasingly required to provide numerical data to demonstrate that standards and performance outcomes have been met, so teacher preparation programs must submit to the requirements of NCATE. Those requirements, above all, necessitate a focus on data aggregation. NCATE contends that it advances professionalization by offering itself as an in-house assessment service that wards off outside evaluators. Ironically, its language and practices mirror those associated with politicians and corporate executives.

In a letter dated October 11, 2006, Arthur Wise, NCATE's president at the time, replied to criticisms of teacher education lodged by the former president of Teachers College, Arthur Levine. Wise, trying to prove that NCATE was all for the rigor Levine complained was lacking in teacher education, wrote that as far back as 2001 NCATE had "launched its performance-based accreditation system," which "required schools of education to . . . provide convincing evidence that candidates have gained the knowledge and skills to help all P–12 students learn" (Wise, 2006, 36). Such comments advance NCATE's attempts to gain a monopoly on accrediting teacher education.

Wise parlayed the emphasis No Child Left Behind puts on accountability, testing, and scientific research, into support for NCATE from the Bush administration. In 2000–2001, Wise oversaw the move in NCATE accreditation standards from an examination of "inputs" to performance-based accreditation, and the word "accountability" appeared more regularly in NCATE literature. In January of 2001, Wise commended President Bush for the emphasis on teacher quality in the No Child Left Behind Act. Wise stated, "Accountability and high standards are empty promises without quality teaching . . . NCATE welcomes President Bush's call that every child in America deserves a quality teacher" (Wise, 2001). He went on, "Institutions must provide evidence that candidates know their subjects and can teach effectively so that all students learn." In May 2003, Wise reiterated his comments when he appeared before the House of Representatives' 21st Century Competitiveness Committee, a

subcommittee of the Committee on Education and the Workforce. "Rigorous teacher preparation is key to ensuring that no child is left behind" (2003a). The omission in such thinking of any reference to dismantling structural inequality or racism as a strategy for ensuring "no child is left behind" is stunning. Then again, NCATE's commitment to social justice, for example anti-homophobic teaching, seems at best vapid, given its avoidance of those issues in its literature and regulations (Wasley, 2006, A13). It has accredited teacher education programs in schools that officially frown on homosexuality.

NCATE's support for testing, as already mentioned, is strong. Referring to the federal mandate that schools of education report how many teachers passed state licensing exams, Wise stated, "This federal mandate has enabled NCATE to incorporate test score results into its accreditation decisions" (2003a). It should come as no surprise that less than a year after his appearance before the House, where he praised President Bush's No Child Left Behind Act, and repeated the necessity of testing, the U.S. Department of Education awarded NCATE $4.5 million to support implementation of so-called scientifically based reading research and instruction at primarily minority-serving institutions, including Historically Black Colleges and Universities, Hispanic-Serving Institutions, and Tribal Colleges, with the goal of raising P–12 student achievement in reading. Secretary Rod Paige announced the project. Wise commented, "We are very pleased to have the opportunity to provide quality professional development to further strengthen teacher preparation at minority-serving institutions" (NCATE Press Releases, 2004). Boyce Williams, vice president for institutional relations at NCATE, said, "It is critical that teachers coming from these institutions and other primarily minority-serving institutions have the necessary knowledge and skills to teach P–12 students to read and succeed at higher levels" (NCATE, 2004).

Apparently, without NCATE, the students of those teachers can't be assured of a good education.

Implicit and frequently explicit in NCATE's and AACTE's literature are four claims shared by the discursive universe we have been mapping: (1) we need to prepare our youth for the global marketplace; (2) teachers are the most important factor in student success; (3) teaching is a profession that like medicine has a body of knowledge that is known; and (4) we need to quantitatively measure if teachers possess that knowledge and are qualified. These same claims are also made by the NEA, NCTAF, and the Carnegie Foundation for the Advancement of Teaching. Perhaps the following quote captures the alignment between policy makers and these organizations: "NCATE's system is a direct response to policymakers' calls for better teacher preparation and more rigorous standards for teachers" (NCATE, 2000). The educator who made this claim was Bob Chase, who had been chair of NCATE's Executive Board from 1999 to

2000. When he made the statement, he was President of the National Education Association.

NEA and the Partnership for 21st Century Skills

The National Education Association has taken critical stances toward NCLB's emphasis on testing and certainly has been in the forefront of lobbying Congress to change the more pernicious regulations embodied in that legislation. But because of NCLB's stress on accountability and standards, the NEA is opposed to dismantling the legislation. Given the association's commitment to rank and file union members, it is odd that the NEA was a founding member of The Partnership for 21st Century Skills. The Partnership, on whose board sits John Wilson, NEA's Executive Director, promotes language and views consistent with the more corporate visions we have been considering. According to its website the Partnership advocates infusing 21st century skills into education, because, it contends, students around the world outperform American students on assessments that measure 21st century skills, and today's teachers need better tools to address that growing problem.

What exactly are these twenty-first-century skills about which everyone talks? The Partnership for 21st Century Skills lists in its mission statement, on its website (www.21st centuryskills.org), the following: information and communication skills; thinking and problem solving defined by critical thinking and systems thinking, problem identification, formulation, and solution, and creativity and intellectual curiosity; interpersonal and self-direction skills, which involve collaborative skills, self-direction, accountability, adaptability, and social responsibility; global awareness; financial, economic, and business literacy, and developing entrepreneurial skills to enhance workplace productivity and career options; and finally, civic literacy. Seemingly unlike its partner, the NEA, the Partnership believes that its framework for 21st century skills is consistent with the metrics and accountability emphasized in the No Child Left Behind (NCLB) Act. The vacuity of such a taxonomy is stunning. Even if we believe there is some logic to the list and some substance to the skills, why they are particular to the twenty-first century is bewildering. I am sure twentieth-century business training schools also cultivated these. That public schools should focus on these skills is both self-evident—are there public schools that would repudiate intellectual curiosity, civic literacy, collaboration?—and, given their appropriation by and application to business, horrifying.

To ensure these skills are integrated into the curriculum, the Partnership brings together the business community, education leaders, and policy makers. Among the corporations supplying current board members

of the Partnership are Adobe Systems, Apple, AT&T, Atomic Learning, Blackboard, Cisco Systems, Dell, Education Testing Service, Ford Motor Company Fund, Hewlett Packard, Intel Foundation, KnowledgeWorks Foundation, LEGO Group, Microsoft Corporation, and Oracle. It would appear that even the national teachers union welcomes the language and support and influence of corporate America, and given the near obsession with data, it is not surprising that so many companies involved with the Partnership are companies connected to data processing technologies and testing. It is disheartening to realize how much of the agenda of the Business Roundtable has been adopted by the NEA (Emery and Ohanian, 2004).

National Commision on Teaching and America's Future

Students' ability to compete globally and their teachers' responsibility for developing that ability are themes that run through NCTAF's literature. NCTAF was created in 1994 by James Hunt and Linda Darling-Hammond, both of whom served as co-directors for a decade. Today the Commission is co-chaired by Richard W. Riley, former U.S. Secretary of Education under Bill Clinton, and Ted Sanders, past President of the Education Commission of the States. The president is Thomas G. Carroll. The Commission includes public officials, business and community leaders, and educators representing major stakeholders in education. The following is excerpted from "Teaching for the Future" by Carroll (2007):

> The flat world rewards continuous learning, sustained teamwork, and flexible adaptation to change. Today's students . . . need teachers who know how to create a learning culture that fosters . . . communication and innovative problem solving.
>
> (46)

It's worth noting here the transformation of schools into learning organizations, the curriculum into preparation for the global economy, and teachers into designers of learning organizations that "foster" skills demanded by the market. As we'll see in the next chapter the statement is resonant with Thomas Friedman's neoliberal tract *The World is Flat*.

Central to NCTAF's mission is preparing and retaining teachers better than we have done in the past. How that is accomplished is the question. In order to ensure teachers are well qualified to teach, NCTAF recommends that there be rigorous admission and graduation standards for teacher preparation programs, which must meet rigorous accreditation standards. If they don't meet those standards the programs should be closed down. Cutoff scores on licensing exams should be developed and the exams

should consist of rigorous tests of content knowledge, performance-based assessments of teaching skill, and portfolios documenting both content knowledge and teaching skill. Once again, standards, testing, numerical data, strict accountability with harsh penalties attached to failure, and close surveillance are key.

According to NCTAF data on teacher licensure status and teaching assignments should be public, and the data on K–12 student achievement, as well as on teacher preparation and licensure, should be collected and used. In other words, individual students' test scores will be tracked in terms of their teachers, whose own scores and place of training will be tracked, so that students, teachers, and teacher preparation programs can all be held accountable. This data will in turn be used in a feed-back loop, to improve student, teacher, and teacher preparation program performance. It will also be used to determine pay incentives that reward teachers for improving their practice. The test creates a perfect circle that defines educational experience. Reality and the test score become one.

Such recommendations are not frivolous. They are currently being put in place in New York City, where plans are under way to establish a data system that will track the assumed links between individual students' progress on standardized tests, their teachers, and their teachers' teacher education programs. This data will then be used to award merit pay, and hold teacher education programs accountable.

All this data, which is overwhelmingly numerical, is meant to track teachers' effect on student learning and to ensure that teachers are in command of a body of professional knowledge, not unlike that which physicians are meant to possess, although as Linda Darling-Hammond has stated, "Teaching is where medicine was in 1910" (quoted in *AACTE Briefs*, 2005, 1). Nevertheless medicine is the model to which teaching can aspire, as captured in Darling-Hammond and John Bransford's *Preparing Teachers for a Changing World*, which advocates an "evidence base for professional practice" that "include[s] both experimental studies of particular 'treatments' or interventions and more naturalistic inquiries" and compares a set of strategies for teaching reading to routine vaccinations (2005, 16). These words could have come directly out of Margaret Spellings's speech quoted in the beginning of this chapter. What is pernicious about such remarks is that they offer a lure to teachers—the professional status of physicians, the certainty of knowledge, and the aura of white-coated scientists who know what medicine to administer to the suffering patients.

The Carnegie Foundation for the Advancement of Teaching

Envisioning teaching and teacher education in terms of a medical model is consistent with the work of Lee Shulman, who for over a decade was the

president of the Carnegie Foundation for the Advancement of Teaching. Shulman, a professor of psychology, has spearheaded studies on teaching that are modeled on the Flexner report, which is credited with reforming medical education. According to Shulman, teacher education "does not exist in the U.S." (2005, 7); at least that's what he told the *Stanford Educator*, the Stanford University School of Education's alumni newsletter in fall 2005.

> There is so much variation among all programs in visions of good teaching, standards for admission, rigor of subject matter preparation, what is taught and what is learned, character of supervised clinical experience, and quality of evaluation that compared to any other academic profession, the sense of chaos is inescapable.
>
> (7)

Shulman echoed the comments of Vartan Gregorian, President of Carnegie Corporation of New York, who has claimed that America's schools of education do a pitiful job in preparing teachers (Gregorian, 2005). Compared to other professions such as medicine, "where curricula, standards and assessments are far more standardized . . . teacher education," Shulman proclaimed, "is nothing but multiple pathways" (2005, 7).

If teacher education is to survive, according to Shulman, it has to come to a consensus on what constitutes good teaching, or in his words "a small set of 'signature pedagogies' that characterize all teacher education" (7).

> These approaches must combine . . . tough assessments to ensure that deep knowledge of content has been achieved . . . , systematic preparation in the practice of teaching using powerful technological tools . . . seriously supervised clinical practice . . . and far more emphasis on rigorous assessments of teaching.

I hope by now you are noticing the repetition of phrases and words, such as "tools" and "rigorous assessment." For Shulman, valuing idiosyncratic approaches to teaching will destroy teacher education. Certainly "a commitment to social justice is insufficient," (7) Shulman stated, as apparently it is for NCATE, given its downplaying of social justice as a valued disposition. If the teaching profession and teacher education do not agree on a knowledge base, Shulman warned, "the professional preparation of teachers will become like the professional education of actors. There are superb MFA programs in universities, but few believe they are necessary for a successful acting career" (7). Of course, one of the reasons why that is the case with actors is that in the U.S., theatre and actor training are driven completely by market forces. In other countries, theatre education

is central to becoming an actor, although "idiosyncratic" approaches are assumed (Matley, 1980). But perhaps Shulman is right, since, in fact, public education has been so thoroughly penetrated by the market and venture capital. Schulman retired as director of the Carnegie Foundation for the Advancement of Teaching in 2008 and was replaced by Anthony Bryk, responsible for many of the ideas that have "reformed" Chicago schools and also an investment partner in New Schools Venture Fund, a venture capital firm, whose motto is "Empowering Entrepreneurs to transform public education by supporting entrepreneurs and connecting their work to systems change" (http://www.newschools.org).

Daniel Fallon is the director of the Program in Higher Education at Carnegie Corporation of New York and, like Shulman, involved in teacher education reform. He works closely with Teachers for a New Era, a reform initiative undertaken by the Carnegie Corporation of New York, the Annenberg Foundation, and the Ford Foundation. The initiative is meant to establish model teacher education programs at selected universities and colleges and universities. The first principle of design detailed by Teachers for a New Era is "a teacher education program should be guided by a respect for evidence, including attention to pupil learning gains accomplished under the tutelage of teachers who are graduates of the program" (TNE, 2007). Tracking teacher success in terms of student success as measured by test scores—it's a familiar refrain, one that Fallon repeated in his May 17, 2007, testimony before the U.S. House of Representatives Committee on Education and Labor. Echoing Shulman, Fallon argued we now possess a body of research-based knowledge that can ensure successful teachers, assuming they are closely tracked or kept under surveillance. According to Fallon, the only obstacle to determining the success of the initiative and to ensuring its use on a national basis is the absence of "comprehensive data systems that collect measures that . . . link performance of individual pupils with the teachers who taught them" (2007, 6) and the institutions where those teachers were trained.

Fallon also told the committee and its chair, George Miller, that Teachers for a New Era undertook its mission because, as he put it, "if the nation is to preserve its standard of living and protect the quality of life of its citizens, it must place priority on producing a highly educated work force. We understand [NCLB] . . . as a rational political response to the challenge of the new economy" (2–3). Fallon went on to argue that whereas in the past educators had concluded that "pupil achievement was largely controlled by economic inequality mediated in large part by family circumstances," today, educational research has shown that rather than "thinking that wealth, families and neighborhoods were the principle source of pupil achievement" we now know "high quality teaching makes a significant contribution to pupil achievement" (3). The attention to the individual teacher as the cause of student success sustains the

personalization particular to psychology—both Shulman and Fallon are psychologists—and masks the larger social, economic, and political forces that have such profound effects on students, schools, and teachers. We shall see in Chapter 7 how the appropriation of education by psychology has contributed to the transformation I am adumbrating, but it is important to note here that the focus on the individual teacher as responsible for student success also promotes a fantasy of teacher as hero, which both subverts any movement towards collective action or systemic analysis and sets teachers up for failure.

I had the opportunity to talk to Fallon in the spring of 2007, when he was giving a talk to liberal arts and education faculty at Brooklyn College. He claimed that teachers, and he used Jaime Escalante as an example, now have the knowledge to ensure their students learn. Particular strategies and interventions "work" he said, and compared the use of those practices to medical protocols. I asked him how he would respond to the objection that the success of a vaccine has little to do with a patient's state of mind but a student's state of mind determines the success of a particular pedagogical approach. He responded by reiterating his contention that "we know what works." It is interesting to note that even Escalante's success was much more complicated than having a "best practice." As Jerry Jessness (2002) notes in his article "Stand and Deliver Revisited," Escalante's achievements were dependent on a supportive principal, another pre-calculus teacher, and years of preparation. When Escalante left, even though the same "methods" were used, scores plummeted.

When one reads the policy statements, news briefs, proposals, mission statements, research findings, and websites of these organizations and others that constitute what I am calling the educational establishment, it is hard to distinguish the policies and their language from those advocated and employed by the Bush administration, politicians at the federal, state, and local levels, and various institutes, councils, think tanks and associations that have strong links to government officials and corporate interests and are often in the business, quite literally, of education.

The regnant policy language of standards and accountability, even though reproduced at so many levels and repeated often enough to be unthinkingly employed, does not in and of itself constitute the transformation under examination here, any more than do tests. The demands for higher standards and more accountability, the incessant talk of measurement, numerical data, and quantification, the claims that teachers and, thus, teacher education are responsible for the nation's economic, racial, and political state, the contention that teaching is a science and that we know what works in classrooms, the calls for professionalization, all these are only a few of the linguistic nodal points in an elaborate discursive web of statements which find support mainly in their reiteration. But the

banausic policies and the language that frames them would never have been enough to transform education. Much more was needed.

Although the language of policy can certainly shape how we talk about teaching, curriculum, and schools, and it can drive and mandate specific decisions, it cannot by itself procure psychic allegiance and intellectual commitment or regulate behavior at the micro level of the classroom and office. To achieve these, three additional aspects of the transformation needed to be in place.

First, there needed to be a set of practices that could be implemented which not only would bring into view and at the same time place under surveillance aspects of education that previously had received minimal attention, but would also promise to provide a semblance of objectivity, predictability, and status to what was portrayed as the haphazard, dysfunctional, and chaotic domain of public education. The practices, beliefs, and discourses, all culled from the world of business, and constitutive of what has come to be labeled audit culture, offered these.

Second, educators and the public needed to be convinced that schools desperately needed fixing and that teachers were responsible for both the problem and the cure. They needed to be convinced that the nation was really at risk if the policies and practices called for were not implemented. If there were no problem, if teachers were perceived to be doing admirable work, if in fact teachers were seen as keeping alive the flame of curiosity and study in the descending night of the global marketplace, the transformation we are analyzing could not have occurred. Teachers needed to be positioned as drones and feckless dunces with the potential, *if* the right policies and practices were adopted, to become heroes, saviors, and intellectual leaders. Furthermore, the retrenchment of segregation and sustained amnesia regarding the radical goals of the civil rights movement and poor people's campaign as these pertained to education led, I would argue, to a deepening melancholia among teachers. The purported efficacy of the educational reforms in addressing the achievement gap between the races served as an anodyne that in fact only anneals class and racial boundaries. Thus the languages of fear and shame and the appeal to unarticulated senses of loss combined to seduce a profession into surrendering autonomy.

Finally, educators needed to have access to a language with which they could identify, that they could justifiably call their own, but a language, nevertheless, that dovetailed with the language of the policy statements and mandated practices to which they were now being subjected. Without this last component, educators and administrators would be hard pressed to embrace a transformation so deeply aligned with corporate interests and potentially leading to their own demise. The language that made it so much easier for educators to embrace the transformation as their own had to be one that offered the security, certainty, and status that seemed

so elusive in a climate of teacher bashing. It had to be one that might alleviate the public shame and private guilt they felt for not fulfilling all the responsibilities they were continually told were theirs. It had to be a language that provided some status in the academy, and it had to be a language that might provide a professional identity. That language was the language of the learning sciences, and it was to this language that the educational establishment would turn in fleshing out the policy statements that so clearly recapitulated the views of the Bush administration and corporate America.

The next three chapters examine each of these components of the transformation in U.S. education.

Chapter 5

Audit Culture

Standards and the Practices of Accountability

> In . . . the system of surveillance . . . [t]here is no need for arms, physical violence, material constraints. Just a gaze. An inspecting gaze, a gaze which each individual under its weight will end by internalizing to the point that he is his own supervisor, each individual thus exercising this surveillance over and against himself. A superb formula: power exercised continuously and for what turns out to be a minimal cost.
>
> —Michel Foucault (1980, 155)

> Management, mathematics and monetarization were to render governable a bureaucratic complex in danger of running out of control . . . But for neo-liberal strategies . . . [t]he solution was not to seek to govern bureaucracy better, but to transform the very organization of the governmental bureaucracy itself, and in doing so, transform its ethos from one of bureaucracy to one of business, from one of planning to one of competition, from one dictated by the logics of the system to one dictated by the logics of the market and the demands of customers . . . In the new public management, the focus is upon accountability, explicit standards and measures of performance, emphasis on outputs not inputs, with rewards linked to performance . . . This required a shift from an ethic of public service to one of private management.
>
> —Nikolas Rose (2003, 150)

> Neoliberalism has, in short, become hegemonic as a mode of discourse.
>
> —David Harvey (2005, 3)

> Measurement and positivism are close kin.
>
> —Ian Hacking (1990, 5)

In the spring of 2005, the National Council for Accreditation of Teacher Education visited the School of Education at Brooklyn College. I was then Assistant Dean, and although I had written a few articles critical of NCATE, I was determined to be a good soldier and fulfill my responsibilities, helping ensure we passed without conditions. More than two years of work had gone into the preparation, and yet at the last minute many

of us were madly scurrying, trying to produce data and prove that we had a viable data aggregation system in place. The examiners would appear from the room where they were sequestered and ask for some piece of numerical evidence or some table or chart. Our ability to produce this material on demand was apparently taken as evidence that we were in compliance with Standard 2—*Assessment System and Unit Evaluation*—one of NCATE's six standards. The rubric for "acceptable" for "Use of Data for Program Improvement" reads in part as follows

> The unit regularly and systematically uses data, . . . to evaluate the efficacy of its courses, programs, and clinical experiences. The unit analyzes . . . data to initiate changes in programs and unit operations. Faculty have access to candidate assessment data and/or data systems. Candidate assessment data are regularly shared with candidates and faculty to help them reflect on and improve their performance and programs.
>
> (http://www.ncate.org/public/unitStandardsRubrics.asp?ch=4#stnd2)

Toward the end of their visit, as they were demanding more and more proof of Standard 2, I offered one of the examiners what I said was a substantive narrative about our candidates' performance in Adolescence Education. No doubt tired and frustrated, she blurted out, "I don't want a substantive narrative. I want numbers!"

Even though enormous energy had gone into designing observation forms, aligning syllabi with various standards and their "elements," hammering out a conceptual framework, managing logistics, filling out reports for the numerous professional associations, such as NCTE, ultimately that was not enough. Crucial to passing NCATE were not only numerical data—data on, among other things, exam pass rates, GPAs, dropout rates, student teachers' classroom performance, responses to surveys and questionnaires, the demographics of teachers, students, student teachers, faculty and administrators, and on faculty publications—but evidence that we had in place a system to aggregate and make sense of the data. True to Michael Power's depiction in *The Audit Explosion*, we had to prove we had implemented practices that didn't monitor quality but rather monitored systems that monitored quality (Power, 1994, 6). It seemed as if valuable, although perhaps vulnerable, professional judgment and wisdom were being replaced by a measurable, defendable, and supposedly neutral process, in which educators and students were themselves constructed in terms of quantifiable outcomes.

In the end, the NCATE examiners unconditionally passed the School of Education. Faculty members who had reacted with a sense of black

humor to the demands NCATE had placed on them, who had occasionally fallen into passive-aggressive behavior, who had appeared at times downright rude to NCATE consultants, and who had resisted but also done their best to meet the inexorable demands placed on them, heaved a sigh of relief.

The relief was brief. It quickly became apparent that the practices and discourses put in place to pass NCATE were permanent and that further demands would be made. For example, teacher preparation programs would be held accountable for their candidates' success in having a positive impact on their students' learning. Thus another layer of data aggregation would be required, data that would be generated by more testing. With the increase in numerical data, meetings would come to focus on what the data revealed. And in turn, what the numbers told us would be taken as fact, because numbers are purportedly objective. They are, as Theodore Porter writes, "raised up as neutral objective language" (1994, 209), as opposed to being understood as masking a weak knowledge base of uncertain status, partial vision, limited historical context, and a vulnerability to the vicissitudes of convention, time, and place (Rose, 2003, 153). The insights of faculty about what teacher candidates might need, what might constitute an interesting education for a future educator, and how best to organize a curriculum came to be replaced by "data driven decisions." The numerical data driving these decisions, for example that graduates "overall" feel unprepared in special education or don't fully understand how to instantiate social justice in their practice, seemed more objective and neutral than faculty members' complicated and contentious knowledge, which came to be cast as "subjective" and "personal opinions." What is lost in such reliance on numerical data and its translation is the complexity and variety of experiences it purports to capture. What is also lost, according to Jurgen Habermas (1990) and to Michael Power (1994) are "utopian energies." Citizens are turned into clients and older languages are displaced by the language of "markets, missions, and management" (Power, 1994, 54, fn 54). Today several of the faculty members who experienced the NCATE visit have simply retreated to their offices, resigned to living under the reign of accountability.

Of course there are those faculty members, most often in disciplines with a positivistic bent, who view the accreditation experience and the ensuing attention to performance outcomes and data as beneficial. They claim that, although there are problems with NCATE and some of its underlying assumptions, the end results of local, state, and national drives for standards and accountability in teacher education and teaching have overall been healthy for the profession. Furthermore, they argue that such a process provides teachers and teacher educators with greater freedom. It is that very lure of freedom, as I shall argue, that masks the imposition

of disciplinary practices of self-surveillance and self-regulation, practices that paradoxically strip teachers of their autonomy.

When I presented a paper on NCATE in the spring of 2004 at the American Association for the Advancement of Curriculum Studies, many, if not all, of the fifty people in the room had experienced NCATE's surveillance, and most found it an intensely depressing and intellectually numbing experience. My criticism of NCATE's regulatory practices and the language that frames them is not, however, limited to that accrediting body. NCATE is only one of the numerous organizations whose regulatory practices penetrate and in doing so re-present and transform life in schools. Casting a web of procedures and evaluative filters that recode, standardize, and render visible and commensurable heterogeneous phenomena, these organizations contribute to the transformation of education. The practices they impose and embody have been imported from the business world and reveal the extensive penetration into education of corporate ways of thinking and doing business, or what some have labeled neoliberalism.

The same year that NCATE visited Brooklyn College, the Provost began preparations for the 2008 Middle States evaluation of the college. Perhaps that was one reason she increasingly spoke of "data driven decisions," a term that had not been widely used outside business and informational technology circles until the late 1990s and that entered mainstream discussions of education with the passage of NCLB. In preparation for the visit from Middle States, an organization that focused on outcomes, the Provost sent a group of faculty to a training session in Virginia, where they learned about rubrics, performance outcomes, and a resuscitated Bloom's Taxonomy. Among the principles that guided the development of the standards Middle States promulgates, three are particularly noteworthy.

> First, these standards place an emphasis on institutional assessment and assessment of student learning. Second, the standards acknowledge the diversity of educational delivery systems that enable institutions to meet accreditation standards. And third, . . . the standards are clearly defined and illustrated . . . The emphasis on institutional and student learning assessment follows naturally from the Commission's long-standing commitment to outcomes assessment.
>
> (*Middle States Commission on Higher Education*, 2006, v)

The college was, of course, forced to adopt the language and logics of outcomes assessment—articulating goals and outcomes, identifying assessment measures, and implementing ongoing modifications—and respond to its directives such as the following:

> The college must show the extent to which performance matches mission-related goals and objectives. The college must reveal the long-term relationship between goals and performance. The college must guide further study in which improvement can occur.
>
> (Outcomes Assessment Plan for Brooklyn College, 2007)

Striking in this language is the use of "delivery systems," "monitoring quality," and assessing the worth of an education by its outcomes. Noteworthy, also, is the insistence on continuous self-improvement.

As NCATE and Middle States were mandating adherence to particular standards and practices of accountability, the language of evaluation in general was changing at the college. Annual evaluation forms for faculty were reformatted to include performance outcomes. Faculty were asked to monitor their own progress as teachers by rating their research, teaching, and service in terms of exceeding, meeting, or not meeting goals and expectations. According to the form, "meets goals/expectations represents the lowest level of adequate or acceptable performance." Apparently the minimum one can do is to meet one's own goals. In addition the form asks faculty to stipulate their goals for the following year, and monitor their progress towards meeting these. The form, introduced as a way to give faculty greater evaluative control over their own work, asks faculty to monitor themselves as they pursue constant improvement under their own watchful eye.

Marilyn Strathern, an anthropologist who has written extensively about audit culture, has described the phenomenon of self-evaluation in terms of organizations, but what she says is applicable to individuals.

> Making "organization" explicit comes with the further presumption that information an organization obtains about itself is information to be acted on—knowledge about its achievements becomes constitutive of its aims and objectives. When knowledge is pressed into the service of enhancement, the admonition to be explicit turns (self-) description into grounds for improvement . . . One consequence is that the future is cast as fragile. Unless the organization strives to improve, it will fail to meet its (new) targets.
>
> (2005, 465)

The annual evaluation forms ask faculty members to make explicit their goals, monitor their progress in achieving them, use the information gleaned from such monitoring to expedite their accomplishment, and accept that standing still is falling behind, or that progress is the only acceptable direction.

While annual evaluations of faculty were coming under greater regulatory standardization, student evaluations of faculty were also receiving

attention. Certainly in the School of Education faculty had been encouraged to use, and often voluntarily instituted, student evaluations of their courses, but now college-wide forms were streamlined and treated as valuable data on faculty members' promotion and tenure. What struck me as more than coincidental were the increasing references made by administrators to students as consumers or customers, a term circulating within a larger nomenclature that drew on the vocabulary of business. Thus words such as "stakeholder," "entrepreneurialism," and "best practices" cropped up more and more in conversations. In a climate of scarce resources, the need to increase revenues by attracting more students may have contributed to administrators' finding the vocabulary of consumerism and "the customer is always right" compelling, but the triumph of market capitalism provided the backdrop. As Milton Friedman, whom many (N. Klein, 2007; Kahn and Minnich, 2005) consider the father of neoliberalism, wrote, "In schooling the parent and child are the consumers, the teacher and school administrator the producers" (1980, 157). Student evaluations of faculty are now online, available for students' and faculty members' eyes twenty-four hours a day.

While standards and accountability were materializing as specific practices in the School of Education and Brooklyn College, they were also evident at the Bushwick School for Social Justice (BSSJ). In 2005, BSSJ as well as other small public schools were increasingly turning to consultants and coaches, in part, to meet the needs of professional development but also to help manage the slew of directives regulating administrative responsibilities, curriculum, and classroom teaching. Those coaches and consultants often came with knowledge of the instructional mandates issued by the Department of Education (DOE) and construed their work as training faculty and administrators in using data, implementing innovative programs that focused on performance objectives, and negotiating the tangle of directives that were emanating from the DOE. Meetings increasingly focused on data sheets and devising ways to get teachers to implement planning according to grids and charts emanating from organizations outside the school.

By 2007 BSSJ and other small schools were asked to purchase from a large menu the services they hoped would meet the DOE requirements and improve their schools. The mayoral move to turn over to principals decisions about whom to contract for particular services was phrased in terms of empowerment and autonomy. Principals at these schools gained greater discretion over budgets, curriculum, teacher development, school scheduling, and hiring. In return for greater flexibility and control, principals signed performance contracts focused on numerical results. They also gained BlackBerries and with them came the reality of constant availability and loss of downtime. In the process of saving time, temporality was condensed. Meetings were continually interrupted by texting, buzzing,

and "emergencies." A sense of urgency began to dominate the emotional tenor of BSSJ as well as of the School of Education.

Under such circumstances autonomy meant that teachers and administrators would use a constant stream of data about their work to bring their own performance into accord with targets specified somewhere else. Pedagogy, curriculum development, and assessment seemed increasingly to be measured in terms of achieving standards defined elsewhere or circumscribed by explicit directions, standards that were then operationalized as performance indicators. Although the streamlining promised expediency and efficiency, it often resulted, according to some principals, in a blizzard of directives that seemed disconnected. While standards and mandates issued from a center elsewhere, a contrary movement towards decentralization was occurring. Administrators in specific locations couldn't reach the "center" to address problems specific to their own specific institution. If one wished to understand better how to comply with, let alone voice disagreement with, for example, NCATE, Middle States, or the New York City Department of Education, locating a single person responsible for the actual policy or practices, one who could provide clear instructions or rationales for these, was exceedingly difficult. Autonomy emerged more in terms of the freedom to do one's job as defined and monitored from afar and to do it with no help other than the help one could "independently" procure.

Some faculty members at BSSJ, Brooklyn College, and the School of Education voiced unease about being under a kind of surveillance, but one that they couldn't quite articulate. It wasn't as if administrators were looking over their shoulders. Rather the surveillance came from afar and seemed to be of a disembodied self, someone other than the teacher or administrator they identified as. Certainly administrators and teachers were aware that their schools were under surveillance. School report cards, national rankings, admission numbers, test scores, and compliance with a slew of regulations were now determinants of success, however fragile. But the monitoring that was occurring seemed to be both virtual and located in the interstices of their very practice and identity. Furthermore, there emerged an odd feeling of powerlessness at the very moment of being assured one was autonomous and independent. Something unsettling was happening, and yet teachers and teacher educators were told that the introduction of new practices was for their own good and that the practices would empower them. Any reservations were interpreted as defending privilege and secrecy (Power, 1994, 40, 47) or ignoring students' needs.

It is one thing to have public discussions of education limited to the mind-numbing rhetorical drumbeat presented in the previous chapter; it is another to feel one's daily professional life intruded upon, one's own

expertise diminished, and one's educational vision or philosophy given a shelf-life by the implementation of micro-practices imported from the corporate sector and mandated from afar but presented as empowering and sensitive to the specificity of locale. These practices have come to displace and reappropriate expertise, control actions from a distance, and position teachers, administrators, and teacher educators as free agents who choose to monitor themselves. Such practices abstract from the impossibly complex worlds of schools and education a virtual world, often represented in charts, league tables, graphs, spread sheets, and data flows, a world inscribed with the temporality of the BlackBerry's "now," a world in which phenomena and subjects are rendered commensurable, transparent, visible, calculable, self-regulating, entrepreneurial, governable, and, most of all, commodifiable.

As curriculum, pedagogy, and the running of schools have been transformed at the level of practice, and as new teacher and student identities are being produced, corporate interests continue to nibble at and tear off pieces of public education, working hard to convince the public that privatization protects them from the purported failures of public services, whose robustness is rapidly being sapped by cutbacks in federal, state, and local budgets, cutbacks demanded by the very interests pushing for privatization. The logics of neoliberalism intrude into and structure the daily life of teachers, administrators, and teacher educators, as they open education to the predations of venture capitalism and privatization. These practices and the logics accompanying them, supporting them, and carried by them are the focus of this chapter.

The first section of this chapter provides an overview of the corporatization of education or what some (Apple, 2006; Giroux, 2004; Hursh, 2005) have referred to as the neoliberal assault on education. The second and third sections look at the discourses and practices of standards and accountability as these have been instantiated in schools and higher education as audit culture.

Neoliberalism

> The establishment of the school system in the United States is an island of socialism in a free market sea.
>
> —Milton Friedman (1980, 154)

> *Knowledge* – Zzzzp! *Money* – Zzzzzzp! – Power! That's the cycle democracy is built on!
>
> —Tennessee Williams (1987, 120)

> 'Proverb:
> Every morning in Africa a gazelle wakes up.
> It knows it must run faster than the fastest lion or it will be killed.
> Every morning a lion wakes up.
> It knows it must outrun the slowest gazelle or it will starve to death.
> It doesn't matter whether you are a lion or a gazelle.
> When the sun comes up, you better start running.'
>
> Posted on the factory floor by Jack Perkowski, the chairman and CEO of ASIMCO Technologies, an American auto parts manufacturer.
>
> —Thomas Friedman (2006, 137)

It is impossible to separate the transformation that has occurred in education from the economic policies of the last thirty years. We all know that in the last few decades the abiding wisdom seems to have become that what is good for business is good for the world and that democracy and freedom mean free markets and the freedom to choose among consumer goods. It remains unclear how this shift occurred or what the ramifications are. There is ample evidence (Harvey, 2005; N. Klein, 2007) that it has resulted in a growing divide between rich and poor, a flood of poor people into cities, and the shredding in the U.S. and the West of what remained of the welfare society (Harvey, 2005; Kahn and Minnich, 2005). Radical and progressive scholars have tried to "cognitively map" (Jameson, 1991) the shifts in the economy from the mid-twentieth century's embrace of Keynesianism, which seemed so triumphant—recall when Richard Nixon said "We are all Keynesians now!"—to the current state of the economy, what the French call "savage capitalism." Fredric Jameson, the leading Marxist literary critic in the U.S., initially tried to conceptualize the shifts and the resultant cultural changes after the collapse of the Soviet Union as the "logics of late capitalism." Others referred to "the third way" or "corporate capitalism." "Globalization" served for a while as a blanket term for the expansion. Gradually, "neoliberalism" came to designate, at least in the academy and on the left, the fact that, as Thomas Friedman wrote, "[t]he fall of the Berlin Wall allowed us to think about the world as a single market" (2006, 53), and that the market had penetrated into all aspects of the life world. The term seemed to amalgamate the policies of politicians as different as Ronald Reagan and Bill Clinton; put simply, liberals and conservatives were viewed as different wings of the business party, which was labeled neoliberal.

Interestingly the term "neoliberalism" remains on the margins of political, economic, and social analyses in U.S. mainstream media (McChesney, 1999), where "liberal" and "conservative" or "left-wing" and "right-wing" and occasionally "neoconservative" remain the catch-all categories. The conservative columnist David Brooks in a March 2007 *New York Times* article, entitled "The Vanishing Neoliberal," went so far as to

claim neoliberalism was dead, although one would be hard put to find widespread use of the term before he announced its obituary. Although I would argue that its purported demise may reveal little more than its disappearance into success and the commonplace, I also think there are problems with the term and what it excludes; but, before getting to these, we need to address what actually constitutes neoliberalism.

Whereas some scholars (Toke and Lauber, 2007) claim the term "neoliberalism" was used by European economists in the years before World War II to designate laissez-faire economic policies, and others (C. Gordon, 2003; Kendall, 2003) locate it in the *Ordoliberalen* of post-WWII Germany, according to Margot Olavarria (2003), the term was first used in the Americas by Augusto Pinochet in his 1979 "Chacarillas speech." Certainly the policies that Pinochet imposed implemented Milton Friedman's economic theories, which, according to most scholars of neoliberalism, inform its practices. Although Friedman considered himself a liberal, his belief that an unfettered market offered the greatest hope for humankind came to constitute a tenet of neoliberalism. According to David Harvey (2005), one of its leading critics, neoliberalism

> is in the first instance a theory of political economic practices that proposes that human well-being can best be advanced by liberating individual entrepreneurial freedoms and skills within an institutional framework characterized by strong private property rights, free markets and free trade. The role of the state is to . . . guarantee . . . the proper functioning of markets . . . [and] if markets do not exist (in areas such as . . . education, health care, social security and environmental pollution) then they must be created, by the state if necessary.
>
> (2)

> [Neoliberalism] seeks to bring all human action into the domain of the market. This requires technologies of information creation and capacities to accumulate, store, transfer, analyze, and use massive databases to guide decisions in the global marketplace.
>
> (3)

Neoliberalism has been described as a doctrine that pursues "policies of deregulation, privatization, spending cuts, and inflation reduction with increasing vigor" (Bakan, 2004, 21); "lower[s] wages, break[s] unions, reduce[s] benefits, export[s] jobs to the lowest bidder, and degrade[s] health and safety standards" (Lipman, 2005, 3); and conceives of the subject as concerned only with cost–benefit analysis and as a rational "autonomous entrepreneur responsible for his or her self, progress and position" (Hursh, 2006, 2). Neoliberalism is furthermore described as

"committed to "marketized solutions" and "the reduction of government responsibility for social needs" (Apple, 2004a, 13).

Although the term "neoliberalism" offers a way to unify a host of heterogeneous phenomena related to the triumph of the marketplace, it also poses some problems, since it elides the differences among conservatives, liberals, libertarians, neoconservatives, and self-proclaimed neoliberals. As we shall see in the next chapter, ignoring those differences makes it harder to understand the anxieties and fantasies that have induced educators to embrace the language and business practices associated with neoliberalism. For the purposes of mapping the transformation of education, what is important to retain from the analyses of neoliberalism is their illuminations of the ways and extent to which corporations have penetrated into the depths of consciousness and the bodies of the populace and how the interests, discourses and practices of corporations dominate our approaches to education (Apple, 2004a,b, 2006; Hursh, 2005, 2006; Lipman, 2005; Luke, 2004).

Whether one uses other terms for the hegemony of the market, such as Naomi Klein's "corporatism," which according to her is a "more accurate term for a system that erases the boundaries between Big Government and Big business" (2007, 15) or Kahn's and Minnich's "privatization," which they describe as "a concerted, purposeful effort by national, multinational and supranational corporations . . . to undercut, limit, shrink, or outright take over any government and any part of the public sector that (1) stands in the way of corporate pursuit of ever larger profits, and (2) could be run for profit" (2005, 4), the message is clear. What is good for corporations, that is publicly traded, for-profit business corporations, is good for the U.S. and the world, and what is good for corporations and salient to business in general is good for education. Of course, what is good for corporations is profit. As Joel Bakan has pointed out in *The Corporation: The Pathological Pursuit of Profit and Power*, corporations are *legally bound* to "pursue, relentlessly and without exception, [their] own self-interest, regardless of the harmful consequences [they] might cause to others" (2004, 1–2).

Because the understanding of markets "not as artifacts of human civilization but as phenomena of nature—now serves as the unquestioned foundation of nearly all political and social debate" (Bigelow, 2005, 33), it should come as no surprise that the titans of corporate America presume to be qualified to organize, direct, and determine what should constitute successful teaching, curriculum, and schools. We have already seen in Chapters 3 and 4 how corporate executives wield influence in a number of educational organizations. They also control whole educational systems. In New York City, the public school system is run by two men. The first is the mayor, Michael Bloomberg, a billionaire business man whose fortune was made through a subscription service that sells financial data,

analytic software to "leverage the data's usefulness," and trading tools, a service he built with some of the $10 million partnership settlement he received when he was cut loose by Salomon Brothers in 1981. The other is Joel Klein, who was previously a CEO of Bertelsmann, one of the world's largest media companies, and who worked as a corporate lawyer and assistant attorney general at the Department of Justice, where he prosecuted anti-trust cases against Microsoft, WorldCom/Sprint, and General Electric. Whereas Bloomberg's corporate background is not unusual for a politician, his hands-on approach to education is. Both he and Klein bring the practices and discourses of the corporate world to the New York City public schools.

Bloomberg and Klein are not the only educational leaders in the U.S. with corporate backgrounds and no experience teaching or in education. For example, Michael Bennet, before becoming the superintendent of the Denver public schools, served as a managing director for the Anschutz Investment Company, where he was responsible for restructuring billions of dollars of debt and lines of business, as well as the investing of over $500 million.

Sustaining and intensifying the influence corporate leaders exert today in education are the assumptions that the practices and discourses of business are not only objective, rational, and applicable to any organization, but also fundamental to running schools and providing education. As social programs, the public sphere, and New Deal programs are dismantled, as budgets for public education shrink, and as schools, teachers, and teacher educators are viewed as dysfunctional, the private sector, that is corporations, offer their "expertise" to "help out."

To fully grasp the irony of the assumption that CEOs such as Gerstner or Rust or Klein or Bloomberg or Bennet are the best ones to run schools and determine educational policy, one need only consider the record of corporate malfeasance, economic upheavals, over-inflated markets, and the horrifying effects of corporate policies on the environment, on poverty, on the gap between rich and poor, and on public life over the last twenty-five years, that is since 1983, the year *A Nation at Risk* appeared. One would think educators would want to keep anyone connected to the business world as far away as possible from educational policy, although clearly there is a place for salesmen and merchants and accountants and lawyers in the ancillary operations. Instead educators seem to fall over themselves to base education on the corporate model. Witness, for example, the plea of Arthur Levine, the ex-president of Teachers' College, that school leadership programs be based on business models.

I don't want to give the impression that these corporate leaders who take such an interest in education are motivated only by financial self-interest, although there is an enormous amount of money to be made from education. They may well be psychically, as well as perhaps financially,

invested in educating the nation's youth. But their vision of the purposes of education and the curricular and pedagogical approaches to achieve it come from the corporate sector. Perhaps the best way to understand that vision is to read the views of someone who has profoundly influenced the current understanding of education, particularly the understanding shared by so many corporate lawyers and business people.

Thomas Friedman's book the *World Is Flat: A Brief History of the Twenty-first Century* has been a bestseller since its publication in 2005. The book, which followed his *The Lexus and the Olive Tree*, in which he declared, "I believe globalization did us all a favor by melting down the economies of Thailand, Korea, Malaysia, Indonesia, Mexico, Russia and Brazil in the 1990's, because it laid bare a lot of rotten practices and institutions" (quoted in N. Klein, 2007, 278) is considered by many to be a hymn to neoliberalism. More than any other single work, the book articulates the dominant corporate vision of education today. The concepts, language, and ideas Friedman presents can be heard in the media, in government policy statements on education, in NGO statements about education, in discourses circulating within established educational organizations, and in dinner conversations with non-educators, who always seem to feel that since they attended school or their kids have, their opinions about education are informed. No better guidebook exists on these views about the current state of education or about the neoliberal influence on the transformation of education than *The World Is Flat*.

The World Is Flat presents a picture of a world "leveled" (2006, 6) by rapid technological advances. These advances have, according to Friedman, led to increased global competition among workers, to such a degree that we now must all worry about job security and our national preeminence. As the quote that opens this chapter urges, we must all start running. In the introduction to the updated and expanded edition, Friedman writes that parents frequently ask him what they should tell their kids about life and jobs in a flat world. His book offers the advice he believes they need. He warns the parents that today, more than at any other time in history, people need to wake up and realize that they have "to think of themselves as individuals competing against other individuals all over the planet" (11) and that "[e]very young American today would be wise to think of himself or herself as competing against every young Chinese, Indian, and Brazilian." Here in a nutshell is both the source and result of our obsession with testing. Students, he goes on, must "fundamentally reorient what they are learning [since] the key to thriving, as an individual, in the flat world is figuring out how" to get a job that "cannot be outsourced, digitized or automated" (278). Education consists of preparing for constant job retraining—all those twenty-first-century skills.

To understand the extent to which Friedman's recommendations for educators now permeate the conversation on and inform approaches to

education in the U.S., we need to consider some of his statements. Beginning with a quote from IBM's Lou Gerstner, who declared, echoing Milton Friedman, "Transformation of an enterprise begins with a sense of crisis or urgency . . . No institution will go through fundamental change unless it believes it is in deep trouble and needs to do something different to survive (from talk to Harvard Business School in 12/9/2002)" (quoted in Friedman, 2006, 366), Tom Friedman states, "[W]e're in a crisis now" (326). Our schools and teachers are not doing a good job of preparing our nation's youth. The crisis is a result of several factors, among them the explosion in technology, the fall of the Soviet Union, which "enhanced the free movement of best practices" (54) and the globalization of work. For the United States, this crisis consists in part of the "the steady erosion of America's scientific and engineering base" (326), and the purported fact that "[w]e simply are not educating, or even interesting, enough of our own young people in advanced math, science, and engineering" (335). Several CEOs with whom he spoke told him the crisis also has to do with "the dirty little secret" that young people from other places work harder than ours do. The trouble, according to Friedman, starts in school. He quotes a teacher who basically says that parents set low expectations and "if their kids do OK and have fun, then [they think their kids] must be getting a great education" (343).

In Friedman's view U.S. students are losing the academic race to their peers in other countries. They don't work hard enough, and can't compete with students from other countries whom he describes admiringly as "feel[ing] no guilt about making money or spending it," and as "destination driven . . . outward looking, not inward" (216). He presents several pieces of evidence of the crisis in the education of our nation's youth, exemplified by a *New York Times* story from 2005. The article reports that the "average American college graduate's literacy in English has declined significantly over the past decade" (339). This piece of evidence is followed with a letter, published in the *New York Times* that same year, which Friedman quotes as further proof of the decline in educational standards. The writer, a teacher of English, claims that "this crisis we see in our schools has its roots in American homes increasingly devoid of books and printed material, where children turn exclusively to television, computers, and electronic games for entertainment—and see the adults around them doing the same" (385). Not only are teachers and students failing to catch up with those in other countries but parents are blind to the crisis.

The crisis then is that U.S. kids don't work hard enough, attend schools that don't push them, aren't as competitive as those "other" kids from around the globe, and need to buckle down. Where have we heard this before? And so, to prepare our students with all those twenty-first-century skills that educators warn will be needed in the global market

place, we need standards. "Once a standard takes hold," Friedman claims, "people start to focus on the quality of *what* they are doing" (83). Once we have standards what should teachers do and what should students do? First of all, "[w]e should be embarking immediately on an all-hands-on-deck, no-hold-barred, no-budget-too-large crash program for science and engineering education" (359). Second, and here Friedman approvingly refers to Marc Tucker, whose *Tough Choices or Tough Times* I discussed in Chapter 4, we should institute national, standardized exams. Third, teachers need to motivate their students. According to Friedman, teaching is all about motivation, and when he asks a teacher who the good teachers are, she replies the ones who love kids. "It's all about the inner fire," she tells him (305). How do students find those great individual teachers? Students should ask their friends who their favorite teachers are and then "go out and take their courses—no matter what they are teaching, no matter what the subject" (303). One source of such information Friedman mentions is RateMyProfessor.com. Someone at Brooklyn College must have been reading Friedman, since we now have our own public version of this quantifiable evaluation system.

Of course, not all students are curious, so "the best way to make kids love learning is either to instill in them a sense of curiosity, by great teaching, or stimulate their own innate curiosity by making available to them all the technologies of the flat-world platform" (304). One way teachers can improve is by procuring "lesson plans, Power Point presentations, online homework packets, and other jazzy ways for them to teach math and science" from companies like HeyMath.com, a "very innovative Indian education company that puts Indian students to work over the Internet tutoring students in Singapore and elsewhere" (272).

Finally, and most important, teachers should teach their students to "learn how to learn." "The first and most important ability you can develop in a flat world is the ability to 'learn how to learn'—to constantly absorb, and teach yourself, new ways of doing old things or new ways of doing new things" (302). Why? Because the key to success in the flat world is the ability to retrain yourself again and again, or as Friedman puts it, "repackage[e] and promot[e]" oneself (291). He gives as an example, Marcia Loughry, "a Gold Medal adapter," who told him, "That's when I understood that I was 'Marcia Incorporated.' I concluded that I was solely responsible to [keep learning] by myself, that the resources were available, and that it was just a matter of me taking the initiative" (291). It's important that students are adaptable, and, in addition, they need, according to Friedman to be great collaborators, "synthesizers," "explainers," "leveragers," and "personalizers"—there are those twenty-first-century skills again, ones that will reappear in the learning sciences. Furthermore, students need technical skills in math and science although while

> these are going to get you in the door, they are not going to keep you there . . . What will keep you there is developing a broader view. Corporations are flattening as the world is flattening, and you have got to be able to see things from the business's, the customers', and the market's perspective.
>
> (292)

Indeed! As the similarity between Friedman's words and ideas and those that we have heard in Chapters 3 and 4 make clear, the market perspective has certainly come to dominate education.

Whereas I hope it is clear by now how current educational policies and mainstream educational discourses mirror the views Friedman is expressing and the language and interests of corporations, it is also important to understand why corporations are so invested in education. Perhaps the two most pro-business administrations in the last seventy-five years have been the Reagan and G. W. Bush administrations, yet the former came into power wanting to dismantle the Department of Education and the latter expanded its powers, successfully using it to open up education to the business community. What changed was the awareness that education was a new market, one worth billions of dollars.

We saw in Chapters 3 and 4 some of the ways corporations have profited from education, but these constitute only the tip of the iceberg. In the winter of 2000, *Business Week* reported that the education market was the hottest place for venture capital (Symonds, 2000). One year earlier, right when the New York State Regents and the new Chancellor of Education were concluding that schools of education in New York were doing a lousy job and had to be reformed, Russ Baker (1999) in an article in the *Nation* was already documenting the market's intrusion into education. Baker quoted estimates of the worth of the education market at that time as at least $600 billion and growing. He compared it to where health care had been a few decades earlier, and suggested that venture capitalists and free marketeers saw it as the last public space that was ripe for privatization. Baker's article focused on the man who at the time owned the largest share of that market, estimated at $1.2 billion. That man was Michael Milken, the junk bond king. Milken's company, Knowledge Universe, was then in competition with DeVry and Sylvan Learning Systems. These corporations, or educational conglomerates, were at the time, if not already invested, then poised to invest in creating and disseminating information, providing distance learning and packaged curriculum, establishing for-profit K–12 schools, selling test preparation and the administration of tests, and providing teacher preparation.

In 2000, Nico Hirtt, a member of the Belgian organization Appel pour une école démocratique, stated that "for investors looking for somewhere to put their money [education] was . . . an annual budget of $1,000 billion

worldwide, a sector employing 50 million people, and above all a billion potential customers in the form of students." In 1995, according to Hirtt, study abroad alone was a business worth $27 billion. Hirtt argued that driving educational systems toward commercialization were several factors, among them: the explosion in students at the same time as a stagnation in public spending on education, which drives parents and students to look to private sources of education; criticism of public education; the "deregulation" of educational systems, allowing for-profits companies to benefit; and attempts to develop equivalences among courses, thus ensuring portability of diplomas. Basically the strategy consists of condemning the schools, manufacturing a crisis, starving public schools of resources, standardizing curriculum and teaching methods, and opening up education to for-profit companies.

In 2003, the *Chronicle of Higher Education* reported that for-profit colleges were expanding "their offerings of master's and doctoral degrees in education" (Blumenstyk, 2003). H. Wells Singleton, provost at the time of Fischler Graduate School for Education and Human Services at Nova Southeastern University, a private for profit institution remarked in the article, "Over the next 10 years, this is going to become a very big, free-fall market." And indeed it has, as has the market in services to PreK–12 programs and schools, and higher education in general. Examples of the marketing of education abound ranging from tutoring services, reported on by Susan Saluny in a *New York Times* 2005 article entitled "A Lucrative Brand of Tutoring Grows Unchecked," to what is reported on in a July 22, 2007, article in the *New York Times*, entitled "Deals in Textbook Business Make Irishman a Leader in U.S. Publishing." This article reported that a small Irish software company, Riverdeep, was turning into "a giant American textbook publisher" by combining with Houghton Mifflin, in a billion-dollar deal (Pfanner, 2007). According to the report Riverdeep had moved to "expand further in educational publishing, agreeing to acquire the U.S. educational business of the Harcourt division of Reed Elsevier for $4 billion." In previous months a flurry of acquisitions of educational publishing companies amounted to close to $9 billion. According to Eric Pfanner, the reporter, "Analysts say private equity has been attracted to the educational business by steady cash flows, a relative lack of competition and expectations that spending will increase in the coming years." Because Riverdeep specializes in software, the CEO of the company, Barry O'Callaghan, saw an opportunity to break into a U.S. textbook market long dominated by a few key players, particularly McGraw-Hill, and change it to a market based on newer educational software and technologies. The acquisition consolidated the power of the three leading K–12 publishers, Pearson Education, the McGraw-Hill Co., and now Houghton Mifflin Riverdeep Group PLC, who, according to

Education Week (Trotter, A. and Manzo, K., 2007) do about 80 to 85 percent of K–12 textbook sales.

Whether it's textbooks, supplementary educational services, tests, testing programs and testing guides, packaged curriculum, data aggregation systems, scripted programs for teachers, corporate-sponsored university research, bringing advertisements into the classroom, or renaming university and public school centers after commercial brands, whether it's for profit universities or the explosion in online degrees or "branding" schools, whether it's the commercialization of college sports and cultural resources or the surrender to the rankings game of *U.S. News and World Report*, whether it's the student loan scandal or the scandal over Reading First, or it's the privatization of schools in New Orleans and Chicago, there is overwhelming evidence of the intrusion into education of for-profit corporations. Most teachers and educators know this, but, in their daily life in school, they are aware of it as something outside themselves, something done to them or imposed on them or their schools. Teachers, teacher educators, and administrators know that corporations are slowly gobbling up the very market in education those corporations have created. And yet there seems little resistance.

Academics have certainly eloquently described the "neoliberal assault on education." A substantial body of scholarly work now exists that critiques the corporatization of education: Apple's (2006) *Educating the 'Right Way': Markets, Standards, God and Inequality*, Berube and Nelson's (1995) *Higher Education under Fire*, Bok's (2003) *Universities in the Marketplace: The Commercialization of Higher Education*, Boyles's (2000) *American Education and Corporations: The Free Market Goes to School*, Bracey's (2002) *The War against America's Public Schools: Privatizing Schools, Commercializing Education*, Cuban's (2004) *The Blackboard and the Bottom Line*, Emery and Ohanian's (2004) *Why Is Corporate America Bashing Our Schools?,* Gould's (2003) *The Univer$ity in a Corporate Culture*, David Kirp's (2003) *Shakespeare, Einstein, and the Bottom Line*, Readings's (1996) *The University in Ruins*, Saltman and Gabbard's (2003) *Education as Enforcement: The Militarization and Corporatization of Schools*, Saltman and Goodman's (2002) *Strange Love: Or How We Learn to Stop Worrying and Love the Market*, Washburn's (2005) *University, Inc.,* and the amazing work on Bush Profiteers found at <http://www.dailykos.com/story/2007/3/14/13170/1926>.

All these address the encroachment into and appropriation of pre-K through higher education by corporations. And yet little changes, other than a continuing hollowing out of teacher identities and intellectual work. The transformation of education continues unabated, even though teachers, administrators, and teacher educators not only are aware of efforts to privatize and commercialize education but also voice strong opposition to it. Why then does it continue to spread? To begin to answer this question

we need to look more closely at the corporate take-over of education at the micro level, in other words at the level of actual practice.

Audit

> But how does it become possible to extend government over events and things that are distant? . . . It entails establishing links, networks, alliances and conduits that in various ways allow "action at a distance." . . . Events must be inscribed in standardized forms, the inscription must be transported from far and wide and accumulated in a central locale, where they can be aggregated, compared, compiled and the subject of calculation.
>
> —Nikolas Rose (2003, 210)

> Society must be re-made before it can be the object of quantification. Categories of people and things must be defined; measures must be made interchangeable.
>
> —Theodore M. Porter (in Megill, 1994, 201)

I have stated that the transformation I have been mapping progresses under the twin banners of standards and accountability. One way to approach these terms, "accountability" and "standards," is in terms of what the French psychoanalyst Jacques Lacan (2006/1970) labeled quilting points. A quilting point serves to stabilize a loose grouping of heterogeneous elements or a field in flux. Terms such as "patriotism" or "democracy," whose definitions and discursive deployments are always potentially contestable and subject to rearticulation and redeployment become suddenly fixed and serve to mobilize and stabilize a variety of heretofore only loosely related phenomena. The quilting points of "standards" and "accountability" stabilized what was still in the 1990s a conceptually open and fluid field in education, and recoded politically contentious issues. They made, for example, the ongoing racial problems in preK–12 public schools and the shocking resegregation of schools invisible, by recoding them into standards regulating diversity. They have also made manageable various fears that were stimulated by the corporate media and distributed among the white population, for example, fears of black violence, fears that an unequal distribution of resources was favoring minorities, fears that schools, in an effort to cater to kids of color and immigrant children, were "dumbing down" the curriculum and not emphasizing basic English. These fears, as well as fears provoked among the black population, for example, fears that their children were not competitive with white students and might be economically left behind, fears that had previously been understood in terms of institutional racism and the class structure, were exchanged for the more manageable fear that teachers and teacher educators were not measuring up. The way to address these fears was not

through combating racism or class inequities or the excesses of the market but through holding these very groups, as groups and as individuals, accountable for their failure to meet specified standards.

Not only were the fears of the general public recoded by these quilting points, but the fears of educators and teachers were also translated into the discourses of standards and accountability. Fear of low status, dwindling resources, increased workload, lack of control, and imminent chaos were exacerbated by the proponents of accountability and standards, who in turn promised that standards and accountability would address such fears. What was an open field has found closure in the unprecedented growth of local, state, and federal standards. Those standards implied a certainty of knowledge and required implementation of practices at all levels and in all aspects of education.

The second way we can think about standards and accountability is in terms of what Michel Foucault called "governmentality." For Foucault (1978/1994), governmentality, in both the general and the most specific sense, organizes the conduct of conduct, which is to say, promotes forms of control at both the macro and the micro level, that construct a subject focused on its own self-regulation, and that treat a whole population as "a datum, as a field of intervention and as an object of governmental techniques" (Foucault in Burchell, Gordon, and Miller, 1991, 102). Governmentality could apply to both the individual teacher and teachers or educators in general. Through the micro practices of disciplinarity, individuals and their modes of thinking are reshaped in ways that align them with rules, procedures, and regulations promulgated by the State. As the State intervenes at the micro level, it also treats a population, in general, as in need of intervention (Foucault 1978/1994, 203–204). Teachers as a population, for example, are constructed as dysfunctional, in need of intervention. Disciplinary practices are introduced such that individual teachers come to apply to themselves technologies of self-regulation that render them retroactively dysfunctional—before I used rubrics or specific standards or student evaluations or needs assessments or group work or Ramp Up to Literacy or performance outcomes, I must not have been doing my job—and liable to a precarious future—if test scores don't rise, if the evaluations are bad, if I don't follow the script, I am sunk—in which they can be cast again and again as dysfunctional.

Coercion, although used as a threat—schools can literally be shut down if they don't comply, school systems can be ordered to privatize, teachers can be denied jobs or merit pay—recedes, as individuals are persuaded in the name of autonomy or empowerment to adopt surveillance and normalizing practices that gradually shape their own thinking and conduct to conform to a reality that is presupposed but that comes into effect as a result of these very practices.

The final way to understand standards and accountability is in terms of what British anthropologists call audit culture, a concept originally developed in England in response to first Thatcherite and later New Labour's efforts to hold institutions accountable. Audit culture refers to the emergence of systems of regulation in which questions of quality are subordinate to logics of management and in which audit serves as a form of meta-regulation whereby the focus is on control of control. Institutions become auditable by abstracting performance objectives and focusing on the managing system for defining and monitoring performance. According to Michael Power, "The audit explosion can be understood generically as the increasing prominence of quality assurance ideas and practices, building on older concerns with fraud, waste, and abuse inside government" (1997, 189). Associated with such terms as "value added," "quality assurance," "accountability," "transparency," "efficiency," "best practices," "stakeholder," and "empowerment," audit culture exploded in the 1980s and 1990s.

All of these conceptual approaches are helpful in trying to come to grips at the micro level with corporate intrusion into education. In the following sections I shall focus on standards and accountability, as quilting points, as disciplinary practices of governmentality, and as examples of audit culture. Although I understand the dangers in mixing these heuristics, I find that they each offer vocabularies for articulating distinct practices that through a whole series of loosely connected operations regulate the actions of teachers and students, translating them into governable behaviors, produce teacher-selves that are calculable and self-regulating, and reduce knowledge and what occurs in classrooms to quantifiable, portable data, which in turn is used as evidence of the preexisting educational reality these practices actually fabricate.

Standards

> Standards work . . . by standardizing people and making them into self-monitoring, self-motivating persons who use audit to align themselves with . . . regulations.
>
> —Elizabeth Dunn (2005,189)

> [T]he more the school system dictates . . . the greater the likelihood that the school will be mediocre.
>
> —Ted Sizer (2004, 88)

Fourteen years ago in *National Standards in American Education*, Diane Ravitch (1995) adumbrated different kinds of standards and their purpose. She wrote, "A standard is both a goal (what should be done) and a

measure of progress toward that goal (how well it was done)" (7). Standards in the field of education are, according to Ravitch, important not only for telling us what we should know and how well we know it, but also for motivating students. Sounding like George Lakoff's (2004) "strict father" of the Right, Ravitch argued students "hunger for structure, discipline, and more rigorous standards" (xiv). "Much of the movement for standards," Ravitch claimed, "aim[s] to reestablish priorities by clarifying that the schools [are] responsible, first and foremost, for developing the intelligence of their students" (5). Not, mind you, responsible for providing the conditions under which students can pursue intellectual work, but for the intellectual development of students. Ravitch wrote there are three common uses of the term "standard":

> The first are content standards. Content (or curriculum) standards . . . describe what teachers are supposed to teach and students are expected to learn. They provide clear, descriptions of the skills and knowledge that should be taught to students. As a report to the National Education Goals Panel defined them, "those skills include the ways of thinking, working, communicating, reasoning, and investigating that characterize each discipline. The 'knowledge' includes the most important and enduring ideas, concepts, issues, dilemmas, and information of the discipline." . . . A content standard should be measurable so that students can demonstrate their mastery of the skills or knowledge.
>
> (12)

The second are performance standards, which "define degrees of mastery or levels of attainment. They answer the question: 'How good is good enough?' " (12). These standards would, in Ravitch's view, be adequately measured by tests such as the AP exams, which she described as "thoughtful and thought provoking" (21). Having taught AP courses in English for several years and being quite familiar with the test items, which are slightly more sophisticated versions of the reading comprehension items provided in Chapter 3, I find such a claim hollow to say the least.

It's important to understand that in this early attempt to delineate standards, there is some confusion between content and performance standards, since Ravitch sees skills and what students are meant to learn as part of content standards. Skills and "learning," as we shall see in Chapter 7, pertain to performance, since skills must be demonstrated—a skill *is* by definition demonstrable—and learning *implies* that which can be demonstrated. Performance standards for her are the definitions of what would constitute, for example, proficient or below average or mastery level, whereas content standards appear to be curricular decisions.

She seems to muddle content or input standards with what is learned or what is demonstrated. This confusion will disappear by the late 1990s and early 2000s, when performance standards replace content standards or what were at times referred to as input standards.

The third kind of standards Ravitch labels as opportunity-to-learn, or school delivery standards, which "define the availability of programs, staff, and other resources that schools, districts, and states provide so that students are able to meet challenging content and performance standards" (13). These standards regulate and prescribe the kinds of infrastructure and community resources as well as the school resources necessary for students to learn. Note, however, that the fulfillment of these standards is measured not by student learning or performance, but by the provision of *opportunities* to learn and perform. Whereas the other standards put the onus or responsibility on the teacher and school, when it came to resource standards, Ravitch put the onus on students as opposed to government agencies. Although performance standards measure whether teachers have succeeded in getting students to meet the content standards, they do not measure delivery standards. Levels of proficiency on exams are thus not tied to "opportunity-to-learn standards," i.e. to resources.

Like so many proponents of standards, Ravitch paid little attention to equalizing resources. As she wrote, "Some proponents want to use opportunity-to-learn standards as a lever to force new spending and equalization of spending among schools. But spending is not an end in itself. The end must be content standards and performance standards" (13), and because, as she wrote, "opportunity-to-learn standards cannot stand on their own, without the others" (13), the others must be put in place first. Indeed, many of the proponents of standards approvingly quote Eric Hanushek (1999, 2002), whose research seeks to demonstrate that class size and per pupil spending have nothing to do with academic achievement.

To put this in the best possible light then, those who have been committed to standards movements are interested in ensuring that all our nation's students are introduced to the various skills, knowledge, and information associated with particular disciplines, and then are assessed to determine whether they have achieved proficiency. If they have not, then they are not ready to graduate. Those who champion standards for teachers, who argue that if physicians and lawyers must pass exams to practice, then so should teachers, push for establishing what teachers should know and testing them on it. If they fail the exam, they are not certified.

Standards, as we know, have exploded since Ravitch wrote her book in 1995. Every state has formulated standards, which are meant to raise student achievement, provide teachers with the vision they are meant to instantiate in their practice, and provide benchmarks against which to measure student progress. Two organizations particularly well known for

their advocacy of tougher standards for public school students are the American Diploma Project—initially in partnership with Achieve, Inc., the Education Trust, the Thomas B. Fordham Foundation, and the National Alliance of Business—and the New Commission on the Skills of the American Workforce (Grubb and Oakes, 2007). Both of these groups argue for withholding diplomas unless students meet certain standards (10).

Increasingly standards specify what specific performance objectives must be met and, as we saw in Chapter 3, use high stakes tests to determine if they have been met. John Kornfield et al. (2007) write, "The nationwide preoccupation with public school accountability continues to grow, with teachers and administrators pressured to structure curricula around state-mandated standards" (1902). Every educational accreditation agency now has standards according to which the various institutions they evaluate are to be judged. To name only a few: there are INTASC standards and NCATE standards; the National Board for Professional Teaching Standards has its standards, as do all the specialty professional organizations for teachers, such as NCTE, NCTM, and NCSS; a litany of standards has been offered by various for-profit educational organizations and educational not-for-profits; and federal legislation, such as NCLB, has promulgated standards. The plethora of standards is overwhelming, so overwhelming that it is easy to forget that education has not always been so obsessed with them.

Marc S. Tucker and Judy B. Codding (1998) trace the rise of standards to the 1989 national summit on education, as does Diane Ravitch (2000), who attributes to Albert Shankar much of the momentum for getting teachers to join the standards movement. Susan Fuhrman (2003) locates the first incarnation of the standards movement in the "excellence movement" emerging on the heels of the publication of *A Nation at Risk*. Certainly the case can be made that the 1986 Holmes Group Report, "Tomorrow's Teachers," provided a set of standards for teacher education, but the group did not argue for the imposition of standards at all levels. The competency-based education movement, the excitement over mastery learning, the movement to insist on behavioral objectives and outcome objectives can all be seen as a prelude to the standards movement, but these never achieved the status of state or federal mandates and were not phrased in terms of standards. Finally, although John W. Gardner's (1961) *Excellence: Can We Be Equal and Excellent Too?* called for the implementation of standards, an incipient call as is clear from his plea that students are capable of "rigorous attention to *some sort of standards*" (italics in original), there is no mention of standards in the index of Herbert M. Kliebard's (1992) *Forging the American Curriculum*, or Lawrence A. Cremin's (1988) *American Education: The Metropolitan Experience, 1876–1980*, or Larry Cuban's (1993) *How Teachers Taught: Constancy and Change in the American Classrooms 1880–1990*. This is

not to say that educators did not talk of standards, goals, aims, excellence, or quality before the 1980s. It is to say that standards were not widely discussed or implemented before then. And certainly, the newest version of standards—performance standards—was not a part of the educational landscape before the 1990's. NCATE, for example, did not switch to performance standards until 2000.

One aspect of standards that is often overlooked by those who trace the history of the standards movement concerns their deployment by neoliberals and conservatives whose views of standards differ. Conservatives historically have viewed standards as designating intellectual rigor, the preservation of hierarchy, and the maintenance of systems of privilege, and interpreted the accompanying systems of accountability in terms of individual responsibility. Neoliberals have understood standards as functioning in auditing and accountability practices to make commensurable heterogeneous phenomena for a global economy, and viewed accountability in terms of regulations that ensured a competitive national and global market. For both neoliberals and conservatives, standards and accountability assumed that trust, whether in government or in the people, was misplaced. And yet, as adopted by the education establishment, standards and accountability were intended to protect education from the market, equalize opportunities and outcomes, preserve diversity, and help *all* children learn. Ironically, or given their genealogies perhaps not, they ensured inequality, homogenized differences, and opened the door to corporate investment.

What then is the problem with standards? Clearly no one wants to admit to having no standards, since currently that amounts to saying one has no sense of taste, no moral compass, no ethical bearing, no goals, no principles or simply no criterion against which to measure things, others, or oneself. Without standards, one would seem to have no means of judgment, no way to sort or to value, no center. The *Oxford English Dictionary* suggests that the word derives from the king's position on a battlefield, where the flag or standard was raised. Thus, etymologically, all measure derives from the center of power. This meaning seems pertinent to how standards are used in education, since standards must extend out from some center of regulatory power, and, for them to be meaningful, must be standardized, must derive their power from consistency, must remain constant and extend in time and space over various phenomena.

In the discourse on standards, standards are not construed as dependent on circumstances. To say as much would mean that there was no standard of conduct. Ultimately, it is impossible to separate standards from standardization. Particularly as they are used in education, standards must be standardized, since they function as measures for comparison. The old adage among teachers that they have different standards for each student either is self-contradictory or renders standards meaningless. Such

a claim devolves quickly into meaning that there are as many standards as there are people and activities, and thus means that we judge each individual and each action according to not only a different standard, but one that can shift at any moment. Or it means that we are smuggling in some assumed standard. After all, on what basis can I posit a standard of successful reading for Mary other than in terms of some standardized developmental graph or in terms of Mary's autobiographical situation, which is always changing? Either a position of having different standards for each student is self-contradictory—it's based on what all students can or should be able to do—or it undermines the very idea of standards, since it is based on a what a specific student at a specific point in time can do relative to that time and student. Such a claim, that one has a different standard for each student, confuses standard with expectation or goal, either of which can change, is contingent, and does not have to extend over time or space.

The claim of having different standards for each child also is recoded today as the soft bigotry of low expectation, a smart rhetorical move, although one that makes little sense upon examination, since it assumes that everyone must be expected to meet the same standard and if a teacher does not expect all students to do so, that teacher is bigoted. Of course, the comment seems to get at the bigotry of teachers who have low expectations for students simply because of, for example, a student's ethnicity, race, gender, or class, but it is used as an argument for mandating standards to which all students must be held. Paradoxically such a move winds up establishing a hierarchy among the very groups meant to be helped by standards.

So although a teacher might claim to describe or treat or respond to each student differently or have individualized goals or expectations for each student, that teacher cannot be said to have different standards for each student without losing the meaning of the word "standard," since the moment we introduce the word "standard" we necessarily introduce standardization. This is why, to take an example from another field, the European Union's decision to classify some country's meat system as risky or "below standard" doesn't necessarily mean that that country's standards are lower; it means rather that the country's "problems" are not the same as those the EU's standards addressed. The standards are not commensurable. They are thus not standards in the eyes of the EU (Dunn, 2005, 181).

So standards must of necessity be standardized, and that means that they can be applied across time and space. Purporting to provide one consistent measure for diverse populations, contexts, and problems, and thus regulating practice, standards serve as "immutable mobiles," which can move across contexts and cross local, state, and national borders, can move from one community of practice to another, transforming

these as they go, but not being themselves transformed in the process (Latour, 1993). "A standards regime," Collier and Ong (2005) write, "is a technoscientific form that can be decontextualized and recontextualized, abstracted, transported, and reterritorialized and is designed to produce functionally comparable results in disparate domains" (11). "By transferring standards from one geography to another," Elizabeth Dunn writes, "the normative state makes the implicit claim that each place in a given [area] shares the same set of problems—the problems that the standards were developed to address" (181). This is a crucial point, because it both illuminates how standards homogenize diverse populations, locations, and situations, that is "create similarity and homogeneity even among people and organizations far apart from one another" (Brunsson and Jacobsen quoted in Dunn, 2005, 177), but also reveals how the rhetoric of standards, which proclaims that standards address the problem of bigotry, in fact masks the real differences among groups, individuals, schools and locations, differences in resources, societal treatment, histories, and power—differences, I might add, that are implied although not prioritized by Ravitch's "opportunity-to-learn" standards.

As Dunn argues, "The rhetoric of standards—including the way standards depict the world, highlight[s] particular problems as deserving of regulation and scientific solutions and make[s] assumptions about practices and institutional infrastructures" (180). Standards determine how problems are phrased and prioritized and what constitutes the *single* best way to address such problems. Standards make everything commensurable. "Standardization thus implies legibility, commensuration, and hierarchy. That combination is part of what makes standards efficacious" (183).

The implementation of standards renders diverse groups similar, but creates inequalities, since a hierarchy emerges as a result of the original contextual differences. We see this in the standards movement in education, in which standards render all groups, individuals, communities, histories as synonymous, commensurable, interchangeable, while they diminish, mask or elide, in the name of neutrality and equal treatment, inequities in resources, power, access, and treatment. But because there are disparities of resources, power, histories, abilities, and interests among individuals and groups, the standards produce a hierarchy of differences among these groups and individuals, differences that are then cast as the fault of the schools, the students, the teachers, or the families.

But standards don't only standardize conduct or quality. Standards work because they are able to push norms down to the level of the individual. Dunn argues, "Standards work . . . by standardizing people and making them into self-monitoring, self-motivating persons who use [them] to align themselves with . . . regulations" (189). Presented as forms of empowerment, standards and standardization (186)

> constitute the "self-activating selves" of workers or managers as bounded and disciplined individuals. Spurring themselves to action by constantly monitoring their individual performance and reflecting back on their individual personality characteristics [what NCATE calls dispositions] rather than on the quality of relation among workers or firms, audit's self-regulating selves meet the norms that the standards set by managing their own capacities.
>
> (187)

Thus, the teacher or teacher educator who has embraced, for example, NCTE's or INTASC's performance standards comes to focus not on the larger social, political, or economic situation in which he or she works but on the progress he or she makes toward meeting the particular standards as measured by his or her own or his or her students' discrete performance and as measured against the performance of students and teacher educators in other locations, who face different problems and conditions.

Standards come to constitute the targets as well as the measures of success in teaching, and in this way standards and standardization "promise to act as internal mechanisms for self-improvement" (Dunn, 2005, 176). In the same way, the evaluation forms used for faculty by Brooklyn College ask faculty to monitor themselves according to standards that they themselves have established and in this way discipline themselves. Also, in the same way, the student evaluations of teachers, now available for all to see all the time, shame teachers into monitoring their own progress, and may indirectly affect student performance (Power, 1994).

> The tide of consumer enfranchisement may empower students in one sense, but it may also impoverish them . . . by cultivating an aversion to difficulty, ambiguity, and critique . . . Courses will increasingly be designed primarily with student evaluations in mind . . . such that teachers will avoid risk and therefore innovation.
>
> (1994, 46)

We also must understand that because performance standards define specific demonstrable behaviors, for example, performance on a test, doing group work in class, or putting an aim up on the board, and because the level of success in demonstrating these behaviors must be assessed by standardized measures, activities such as teaching are broken down into finer and finer units, what Richard Sennett refers to as the "minitaturization of focus" (1986, 43). Thus standards not only standardize work, they also divide it up into component parts.

As we'll see in Chapter 7, the language that most readily allows for such "task analysis" is the language of the learning sciences, but the talk among

educators of "best practices" captures how teaching is already understood in terms of its standardized and component parts. Once best practices are agreed on, and their demonstration can be measured, teaching emerges as work that can be chopped up, exported, and, to use Thomas Friedman's term, digitized.

According to an IBM executive whom Thomas Friedman praises in *The World is Flat*, "[W]e need more and more common standards . . . The more we connect everyone through common . . . standards . . . the easier it is to chop up work and send pieces of it to be done anywhere in the world" (2006, 86). Standards lead to standardization, which makes it easier then to rationalize or "chop up work" and make heterogeneous and idiosyncratic work commensurable and interchangeable. When work can be "chopped up" and digitized then it can "be outsourced to either the smartest or the cheapest producer" (15).

With work turned into "best practices," technological innovations make possible its digitization, which in turn makes work itself transportable across all sorts of boundaries and also creates more demand for a particular kind of work, which can now be purchased almost anywhere. It's not hard to see how teaching, suddenly broken down into standardized component parts, becomes one more service vulnerable to the market. If Kaplan can show that its teachers perform on teacher exams as well as those educated in teacher preparation programs, if it can show those same teachers' students perform on exams as well as those taught by graduates of teacher preparation programs, and if best practices, now standardized, are taught by Kaplan, then why go through a lengthier, more substantive program, when meeting standardized standards is all that matters?

But if services are the same, how does one get people to buy them? In a "Point of View" column in the *Chronicle of Higher Education*, John and Christine Cavanaugh argue that in higher education the rocketing cost of tuition—often a result of budget cuts—has led parents and students to ask "whether they are getting a good return on their investment of tens (if not hundreds) of thousands of dollars," leading legislators and the public to demand "that colleges and universities operate more like businesses" (2006). As one of the businessmen with whom Friedman spoke put it, "The new model in business is that you involve your community and customers in an ongoing conversation about every aspect of your business" (T. Friedman, 2006, 116). We are back to the weight given to student evaluations, the use of focus groups to tell us how we are doing, and the questionnaires sent to graduates asking what we should be doing.

In another "Point of View" column in the *Chronicle*, Mary Kupiec Cayton, an historian, writes, "I work with spreadsheets that transform teaching and learning into quantifiable units, and with advertising strategies that try to brand what my university offers as distinctive, even as market

pressures move us toward standardization of our product" (2007). The point she misses is that standardization is exactly what leads to efforts "to brand" and the need to work with "customers."

Understanding, wisdom gained from experience, an appreciation of the complexity and contingency of the art of teaching—all these are replaced by consumer surveys, standardized practices, and measurement. All these dramatically transform how we think about and approach teaching and education.

Whether we are talking about content or performance standards, "[t]o function," Collier and Ong (2005) write, "standards require substantial changes in work routines, in the physical organization of production processes, and in record-keeping procedures to allow the production of a vast quantity of information that is 'legible' to . . . regulators . . . in diverse sites" (11). In order to determine how well standards are met, how successful one is at meeting the performance standards, some form of commensurability is required. Quantification emerges as the way to further make commensurable diverse phenomena. Of course, in reducing everyone and everything to quantifiable data, ranging from test scores and attendance records to performance on behavioral check sheets, all historical, personal, idiosyncratic, and context-specific details about the person or event are erased, creating, as the anthropologist Geoffrey C. Bowker states, "the least possible information that can be shared about events, objects and people while still maintaining a viable discourse around them" (2005, 109). This data, produced in relation to standards, in turn constitutes or demarcates the domain for interventions. But these interventions can never be sensitive to the specificity of context, history, or to the unique experience of the subject/object of intervention.

We can see then how standards serve to standardize work, making it commensurable, erasing differences among individuals, populations, histories, locations. We can see how performance standards transform individuals into self-monitoring and monitored selves, who are urged or feel compelled to embrace constant self-improvement in their practice, which is aligned with standards that strip the individual of any autobiographical idiosyncrasy. We can see how performance standards allow work to be broken down into behaviors that can be easily transported across boundaries, and reproduced regardless of the location, school, classroom, or students. Finally, we can see how salesmen, merchants, lawyers, financiers, and accountants foisted on education a view that monetary investment (public expenditures) in a service (teaching) must be justified by the success of the product (student performance on exams) and that product viability needs to be measured against standards set by the market, otherwise how would we know our investment was worth it? The "return on investment" argument is central to the propagation of standards.

A question, however, remains: What is the relationship between

standards and the actual practices that measure, quantify, and regulate conduct and dispositions? In other words, teachers, administrators, and teacher educators may find themselves confronted with standards, both content and performance standards, but how is it determined if they are meeting those standards? How do these standards concretely intrude into the daily lives of teachers and teacher educators and how do those intrusions shape curriculum, teaching, and the identity of a teacher?

Accountability

> Normative (or "neoliberal") governmentality attempts to integrate new geographic spaces and populations not by overt coercion, but by instituting a host of "harmonized" regulations, codes, and standards. It facilitates the flow of capital and goods by demanding specific forms of record keeping and audit that claim to make the production process "more transparent" to regulators, investors, and consumers.
>
> —Elizabeth Dunn (2005, 175)

In their analysis of audit culture in higher education, Cris Shore and Susan Wright (2000) use the work of Michael Power (1994, 1997) to articulate the changing landscape of academia as it surrenders to and embraces the various practices of accountability. They write

> Our analysis underlines the fact that audit technologies being introduced into higher education and elsewhere are not simply innocuously neutral, legal-rational practices: rather, they are instruments for new forms of governance and power. They embody a new rationality and morality and are designed to engender amongst academic staff new norms of conduct and professional behavior. In short they are agents for the creation of new kinds of subjectivity: self-managing individuals who render themselves auditable.
>
> (59)

The "technologies" to which Shore and Wright refer have been imported from institutions of accounting, business, finance, and insurance, and they currently serve to regulate institutions of education, and the teaching and curriculum found therein. But what exactly are these practices and how do they interact with standards to produce new subjectivities, new understandings of knowledge, teaching, and education?

To address this question, I employ the concept of "assemblage," which anthropologists have borrowed from the work of the French philosophers Giles Deleuze and Felix Guattari. Deleuze and Guattari (1987) conceptualize assemblage in terms of speeds, intensities, multiplicities, and as a collection of molecular or quasi-molecular elements, which move

along lines of flight or deterritorialization as well as reterritorialization and stratification. Assemblages remove the subject/object interface, in the sense that they are always reconnecting with the surroundings, forming new assemblages, which can stabilize or dissolve. Several anthropologists employ the concept as a way to theorize a constellation of practices and discourses, which, connecting to individuals and institutions, reshape these and are reshaped in the process. According to the anthropologists Stephen J. Collier and Aihwa Ong, "An assemblage is the product of multiple determinations that are not reducible to a single logic. The temporality of an assemblage is emergent. It does not always involve new forms, but forms that are shifting, in formation, or at stake" (2005, 12). Kris Olds and Nigel Thrift (2005) use "assemblage" to signal " 'functions' that bring into play particular populations, territories, affects, events—[in other words] 'withs.' They are not therefore to be thought of as subjects but as 'something which happens' " (271).

> Assemblages differ from structures in that they consist of cofunctioning "symbiotic elements," which may be quite unlike (but have "agreements of convenience") and coevolve with other assemblages, mutating into something else, which both parties have built. They do not, therefore, function according to a strict cause-and-effect model . . .
>
> Assemblages will function quite differently, according to local circumstance.
>
> (271)

I employ "assemblage" to suggest that the way standards and specific accountability practices function together is never static, cannot be explained by causal narratives, can shift depending on the location, can both transform that location or the individuals in it and be transformed by both, can coalesce various elements or can disaffiliate them, and can mobilize or disaggregate people, populations, and other assemblages. In some ways "assemblage" is similar to what Bruno Latour (1993) called "immutable mobiles." Standards are examples of immutable mobiles. The difference is that assemblages do transform as they go. They are subject to the specificity of their deployment. An example of an assemblage would be the supervisor evaluations of student teachers in the program in Adolescence Education in the School of Education at Brooklyn College. These combine standards with particular evaluation techniques that produce data, but as they are employed by specific supervisors and at particular locations with reference to individual student teachers, they are themselves transformed as they transform their subjects and objects.

There are different student evaluation forms for each program in the School of Education, but each was designed to convert the observations

of student teachers by supervising teachers into numerical data that could be aggregated and disaggregated to provide "feedback" to the institution at the unit level, program level, course level, and instructor level. The forms were introduced in preparation for NCATE, which required data on the performance of student teachers or what NCATE calls teacher candidates, as well as proof that we had in place a functioning assessment system. Whereas in the past teacher supervisors and classroom cooperating teachers would write narrative reports of student teachers and engage in discussions with one another and the student, with the concurrent push for standards at the national level, the promulgation of revised New York State regulations governing teacher certification, and the visit from NCATE, there arose talk of the inadequacy of the "old way of doing things."

Undoubtedly, there were problems: narratives weren't always written or were lost by programs; meetings didn't necessarily take place or lacked substance; and, perhaps most crucially, cutbacks in resources forced the School of Education to rely more and more on adjuncts, who were not as trusted as full-time professors to do the observations. But none of these problems were insurmountable. Unfortunately, they were used as evidence to place in doubt the old system and to argue that some kind of system needed to be implemented to check on and ensure observations were properly conducted.

Michael Power (1997) argues that practices of audit respond to a loss of trust or anxiety that is itself exacerbated by the implementation of these practices. Nikolas Rose (2003) writes that "[a] new objectivity is a substitute for lost trust" (208) and that "numbers are resorted to in order to settle or diminish conflicts in a contested space of weak authority" (208). Certainly doubt about extant modes of evaluating teachers accompanied by the doubt manufactured by NCATE—if you do not have such and such a form or system in place you are not worthy of accreditation—made the presumed neutrality and objectivity of standardized observation forms alluring. Furthermore, because conversations between supervisors and student teachers were portrayed as difficult, perhaps even confrontational, and at times desultory, the impersonality and the focus a form would provide seemed attractive. The evaluation would no longer be dependent on the level of expertise, the status, or the personality of the observer nor, apparently, would it be contingent on the relationship between the evaluator and student teacher. The observation form would provide neutrality, objectivity, and impersonality. But what exactly would be observed?

The INTASC standards provided a general set of standards, which were widely used and had received the imprimatur of the educational establishment. Our Conceptual Framework, with its themes of collaboration, diversity, social justice, and critical self-reflection, and New York

State and NCATE standards provided other articulations of standards. Over weeks and months, in program meetings, and in small groups, a set of seven broad standards was developed: content knowledge, pedagogical knowledge, diversity, social justice, collaboration, critical self-reflection, and technology. These were broken down into thirty-six performance standards. For example, under content knowledge appears: "Demonstrates knowledge of subject matter." Under pedagogical knowledge appear performance standards such as: "Is punctual and consistent in classroom attendance," "Writes educationally meaningful and relevant lesson plans," "Asks clear, relevant and engaging questions," "Develops lesson plans that have clear intentions and expectations," and "Links evaluation activities to curricular goals and students' abilities." Under Diversity appear standards such as: "Demonstrates an understanding of and sensitivity to racial, cultural, linguistic, ethnic, religious and sexual diversity." And under Technology appears: "Uses technology in teaching." Under each performance standard, there appear the INTASC, NCATE, NY State standards and themes in the Conceptual Framework with which the standards are aligned.

In order to produce numerical data, a Likert scale is attached to each performance standard, so that observers can fill in whether the student teacher has performed at one of the following levels: 5 Exceeds Expectations, which means the student teacher requires no assistance and has an excellent performance; 4 Clearly Competent, which means the student teacher requires minimal assistance and has shown a good performance; 3 Acceptable, which means an average performance, the student teacher requiring some assistance; 2 Marginal, which means the student teacher requires considerable assistance; and 1 Unacceptable or below standard. There is room for narrative commentary after each general standard category.

Student teachers are observed three or four times a semester, the forms are turned in, the numerical scores are tabulated, the ordinal data is aggregated and disaggregated in terms of each standard and a picture emerges of a program or a student or a unit or an individual supervisor.

What are the problems with this form, and in what way is it reflective of the assemblages that bring together discourses and practices of accountability and standards, to transform education, teaching, curriculum, and teachers?

Some of the problems concern the initial reasons for developing a form and the assumed objectivity of the form itself. Again, the form was developed to meet NCATE demands for data, to "clean up" the apparent disorder in tracking student teacher observations, to address a lack of trust in adjuncts doing the observation, to make observations more objective and detached, and to provide more focused feedback to student teachers. NCATE's demand for numerical data, like so many of the

demands fulfilled by instruments that are part of various educational assemblages, requires teaching, curriculum, and what happens on a given day in a given classroom to be recoded or translated into measures that can be quantified. The complicated hurly-burly of the classroom in which the observer is a part must be abstracted into performance standards. At the very beginning, then, the demand for quantification drives the design of the form. We could, for example, have developed a form that asked observers to write a narrative about how they felt in the classroom or what associations they had as they observed the teacher. The form might have focused on what suggestions for study the observer thought to offer the student teacher. Given the demand for quantification, however, such a form becomes if not impossible then superfluous.

The push to clean up the poor record keeping and filing systems and the inadequate tracking of students again came from NCATE. Since it was stipulated how the tracking was to be done—quantitatively—and what progress was to be tracked—individual student progress—the forms were designed to produce data that could be employed in a feedback loop that would guarantee or at least monitor improvement. Not called for were ongoing colloquiums with students to substantively discuss and analyze their experiences. These would not produce the requisite data. Furthermore, embedded in this system of tracking was the assumption that to be a good student teacher, one needed continually to progress, as if teaching were a craft at which one got better and better, as opposed to an art or mode of being in which one had continual encounters with students and curriculum about which one thought deeply but which were never predictable. While one can argue over versions of teaching, the latter version is simply excluded by the form. Of course, it is this exclusion that belies the rationale of empowerment and autonomy that such forms are purported to provide. In the name of empowerment, power is diminished, since one must abide by the forms that must align with the standards that must be able to provide measurable data.

Offered as objective, neutral, and impersonal, the forms seemed to avoid the messiness of bias, awkward conversations, and confrontation that simple discussions and narratives might entail. A check-list of preestablished behaviors, even if it must be explained, offers the shield of objectivity. But the shield is a pretense. None of the performance standards is specific. Other than specifying punctuality, the standards are open to interpretation. What constitutes an engaging question? What constitutes sensitivity to diversity? Once these standards are established, unless they are operationalized—e.g. sensitivity to diversity means calling on a student of color four times or using two texts by women—they do little more than focus attention on general categories of behaviors, which are then graded by a number. The bias, subjectivity, expertise, and status of the supervisor all creep back in along with the power relationships. Audit,

as Foucault suggested, is essentially a relationship of power between scrutinizer and observed: the latter are rendered objects of information, never subjects in communication (Foucault, 1977). The quantification, i.e. the ranking on the Likert scale, only disguises the complexity of what is being evaluated and the power relationship between supervisor and student teacher, a relationship made all the more fraught by the focus on grading and ranking.

The argument that such a form offers direction to supervisors and provides meaningful feedback to student teachers ignores the standardizing processes that such a form implements. Student teachers are graded on their conduct, and the form simply acts as a rubric for grading that conduct. But because it is a rubric, it has all the problems that rubrics suffer from. Rubrics are either too general, e.g. they simply talk about the presence and absence of X, or they are so specific that they provide a moment-to-moment, step-by-step guide to getting a good grade. The subjectivities of the supervisor and student teacher, their relationship, and the complexity of the specific class observed on a particular day are ignored or masked by the focus on the performance standards and the need to grade them. To see how limiting such an approach is, one need only imagine working with a student on his or her writing by grading each draft in terms of a set rubric, regardless of the student, and furthermore having those rubrics determine the discussion about the writing. Teacher, student, and work are standardized, and that is exactly the effect of the student teacher evaluation forms.

Ultimately forms such as the student teacher evaluation form not only grade student teachers on their ability to align, discuss, and plan their teaching in terms of a set of performance standards, not only enforce a behavioral approach to teaching, but also standardize both supervisor and student teacher. The autobiographical, the subjective, the situational, the temporal, the relational, the contingent are ignored or veiled. They simply cease to exist. "Numbers," argues Nikolas Rose, "act as a 'black box' and disguise the complex array of judgments and decisions that go into a measurement, a scale, a number. The apparent facticity of the figure obscures the . . . work that is required to produce objectivity" (2003, 208). And standards, which require rubrics and check sheets, wind up serving as data generators. "Standards function here as 'fact factories.' Not only do they impart knowledge about how things should be . . . but also . . . they act as engines for generating knowledge about products, processes and people" (Dunn, 2005, 184).

The loose connections among standards, check sheets, offices that aggregate the data, the technologies that are used, the supervisors and student teachers, the reports generated, the feedback produced by the reports, and the actions taken as a result, all these create assemblages. And so, the supervisors who use the forms use them differently, some

scoring their student teachers high on each visit, and others, attempting to be "rigorous," starting out with low rankings and then increasing the values. Each supervisor interprets the standards differently and thus may rate the performance differently, so for all its standardization, human subjectivity intrudes, shifting and transmuting the supposed objectivity of the standards and the forms that measure their attainment.

But whereas the forms within the various assemblages interact differently with the actors, they do, because of their form, which, recall, is shaped by the need for data, exclude entire ways of talking about teaching. Teaching as existential encounter, as an endeavor whose results are impossible to predict because they are subject to the vicissitudes of subjectivity and the unconscious, these ways of approaching teaching are excluded. "Once excluded and removed, these absent possibilities are not straightforwardly available . . . (Code quoted in Phelan and Sumsion, 2008, 1). Thus, just as the teacher using the form shapes it, the form shapes that teacher. Even if supervisors use the forms differently, those supervisors are limited by the very nature of the assemblages to a discussion of teaching that excludes educational discourses resistant to the language of standards and accountability.

Dunn's comment is again apropos here, when she argues that "[t]he rhetoric of standards—including the way standards depict the world, highlight[s] particular problems as deserving of regulation and scientific solutions and make[s] assumptions about practices and institutional infrastructures" (2005, 180). Gone are discussions of segregation and the assault on the welfare state. Standards regulating how teachers must report child abuse do not address the child abuse of poverty, poor health care, and environmental damage. As Dreyfus and Rabinow (1983) write, "[P]olitical technologies advance by taking what is essentially a political problem, removing it from the realm of political discourse, and recasting it in the neutral language of science" (61). Rankings of teacher performance do not generate discussions about the politics of teaching or utopian aspirations for teachers to work collectively. Nor do they engage teachers in the complicated interdisciplinary conversation we call curriculum (Pinar, 2004). Finally, the assemblages we have been discussing certainly don't lead to discussions of curriculum, since they focus on behaviors, nor do they emphasize the centrality of the teacher's own intellectual growth: attending plays, reading and writing, going to lectures, pursuing their own questions.

Fundamentally, standards and accountability have resulted in a kind of equivalency among blank meanings. Perhaps none of this is surprising since business is finally all about money and, as Michel Serres suggests, money, standardized and circulating with ease, "is the general equivalent," "null and void of meaning." It is "worth everything and worth itself . . .

it has all meanings having none . . . an abstraction" (1998, 32). Geoffrey Bowker writes, "Money by this account constitutes the least possible information that can be shared about events and objects while still maintaining a visible discourse around them" (2005, 109). Perhaps one way to think about the implementation of standards and accountability is in terms of the daily practices of those businessmen who have had such an influence on how we approach teaching and curriculum. Perhaps those who spend their days thinking about money and its accumulation come to transform everything into meaningless equivalences, and thus translate teaching and education and life in classrooms into standardized "best practices," data, and test results. Or perhaps the language of products, production, and bottom lines is simply the only language available to those who find in the marketplace the answer to the enigmas of education. Whatever the reason, standards and accountability, as these have been deployed within education, have appropriated and transformed discourses of teaching and curriculum and have furthered the corporatization of education.

And yet . . . and yet, we have to ask, how did it come to pass that teachers, educators, and those teacher educators who strenuously oppose the intrusion of the market into education and vociferously reject neoliberalism came to embrace the very regimes of testing, educational policies, and audit practices that further that intrusion and guarantee the triumph of the market? In an article entitled "Evaluating the Audit Explosion" written in 2003, Michael Power describes the "auditee."

> The auditee is undoubtedly a complex being simultaneously devious and depressed; she is skilled at games of compliance but exhausted and cynical about them too; she is nervous about the empty certificates of comfort that get produced, but she colludes in amplifying audit mandates in local settings; she fears the mediocrity of the auditors at the same time as she regrets their powerlessness to discipline the "really bad guys"; she loathes the time wasted in rituals of inspection but accepts that this is probably what "we deserve"; she sees the excellent and competent suffer as they attempt to deal with the demands of quality assurance at the same time as the idle and incompetent escape its worst excesses; she hears the rhetoric of excellence in official documents but lives a reality of decline; she takes notes after meetings with colleagues "just in case" and has more filing cabinets now than she did a few years ago; she knows the past was far from being a golden age but despairs of the iron cage of auditing; she knows the public accountability and stakeholder dialogue are good things but wonders why, after all her years of training, she is not trusted as an expert anymore.
>
> (199–200)

She sounds remarkably like a teacher or administrator. But the questions remain: How did we let ourselves get to this place? How did we become complicit, perhaps unwittingly, in our own decline? How did we succumb to the belief that the business gurus and "flat world" pundits know more about education than we do, or to the view that the product management strategies, accounting protocols, and bottom line values of corporations can address the educational needs of teachers and students? How did we allow ourselves to be seduced into being "generic teachers" whose academic authority is replaced by management control (Mayer, Luke, and Luke, 2008, 81)? To answer these questions, we need to turn to how the corporate media, politicians, businessmen, and some educators fomented a sense of shame, fear, and guilt among teachers, and, at the same time, provided teachers and educators with seductive images of heroic saviors, who through teaching and caring could save kids' lives, solve racial and class problems, keep our democracy thriving, and most of all make sure our kids were competitive in the global market.

Chapter 6

The Seduction of a Profession

Guildenstern: We can move, of course, change direction, rattle about, but our movement is contained within a larger one that carries us along as inexorably as the wind and current . . .
Rosencrantz: They had it in for us, didn't they? Right from the beginning.
Guildenstern: There must have been a moment, at the beginning, when we could have said—no. But somehow we missed it.

—Tom Stoppard

> The irony of course is that we have achieved a national agenda for teacher education—just not the one that we aspired to reach . . . Driven by the interests of test makers, commercial publishers, and on-line providers, this agenda views centralized authority over teacher education as a means to further commercialize teacher education. Goods and services are much easier to market if everyone's needs are the same. Promoting a common curriculum and a single definition of teaching skills and the call to invest in a single national assessment of beginning or accomplished practice best serves those who see teacher education as the $11 billion "investment opportunity".
>
> —David Imig (2005)

> I think we really do face a situation that can justly be called a crisis. Never have I felt more certain that public education itself hangs in the balance . . . I don't think the American public has any idea about the seriousness of the efforts to dismantle public education, piece by piece . . . Accountability has become an end in itself . . . The non-educators . . . lacking any educational philosophy or understanding, are rushing madly and heedlessly to embrace accountability as the bottom line of education. They want to make the numbers . . . Everyone is busily grading, assessing, evaluating, ranking, rating, and of course preparing for the next test. Every school will be graded on a scale of A–F . . . [A]ccountability destroys not only the joy of learning, but learning itself.
>
> —Diane Ravitch (2007)

There is little doubt that we missed the moment to say "No!" to the transformation that has occurred in education. In fact educators such as David Imig and Diane Ravitch, who enthusiastically participated in that transformation, now worry about its consequences. The question is, can we find, as Naomi Klein puts it in *The Shock Doctrine*, "a new narrative that offers a perspective on the shocking events" so that we can "become re-oriented and the world [can] begin to make sense again" (2007, 458)? I think we can, but we need to understand why we educators didn't say no at the beginning. How did we allow the language of education, study, teaching, and intellectual and creative endeavor to transform itself into the language and practices of standards and accountability? How did it happen that we approved the use of pervasive testing that would shock us into compliance? How did we become complicit in the erosion of our own power, and why did we embrace the advice of salesmen, financiers, corporate lawyers, accountants, and millionaires? What led us to think that if we applied practices imported from the world of business we could solve our educational problems, and how did we surrender our right to define those problems? How did we lose our way?

David Imig's quote above offers part of the explanation. Unlike Diane Ravitch, who doesn't seem aware of her own complicity in the assault on public education, Imig admits that the very agenda AACTE pursued contributed to the marketing of education.

Certainly, as we saw in the last chapter, the standardization, rationalization, and mathematicization of teaching and the curriculum made it easier to "chop up" and peddle these. But why did we so enthusiastically support this agenda and why does it still resonate with educators? It is to these questions that I now turn.

I want to suggest that there are four reasons why educators failed to grasp the moment when they could have said no, four reasons why they continue to acquiesce. The first is fear, fear of chaos in the classroom and fear of dwindling resources. The second reason has to do with shame, shame about how we are depicted in the media, about the contempt we feel from colleagues in the academy, shame at being treated with paternalistic condescension and not being taken seriously, and shame at our own low pay and low status. The third reason has to do with fantasies of grandiosity and worthlessness, fantasies that have become an inherent part of teaching, that are fueled by the media, by politicians, and by educators themselves. The fourth and final reason has to do with unresolved mourning for the lost ideals of racial integration and the eradication of poverty. None of these reasons can be separated from issues of race, gender, class and sexuality, yet none of the reasons can be reduced to the politics of identity. I want to look at each of these reasons in detail.

Fear

> No passion so effectually robs the mind of all its power of acting and reasoning as fear.
>
> —Edmund Burke

In his book *The Culture of Fear*, Barry Glassner (1999) writes "[I]mmense power and money await those who tap into our moral insecurities and supply us with symbolic substitutes" (xxviii). Not only our moral insecurities make us susceptible to the lure of quick fixes and symbolic anodynes; financial and physical insecurities also lead us to look elsewhere for certainty, answers, and the protection of authority. Certainly one profession in which insecurity and fear are felt on a daily basis is teaching. Although teaching can be exhilarating, fulfilling, and enlightening, it is also terrifying.

No matter how long one has taught there are the nightmares of losing control of classes or of students who refuse to participate; there are the jitters on the first day of a new class and the fear of not knowing enough or not being well received. There is the fear of chaos erupting or deadly silence. And there are the fears that perhaps it is all meaningless. Most teachers will at one time or another question the meaning of their work. When a teacher works to help a student who does well, gets into college, and then in her senior year gets pregnant and drops out, or when a teacher spends hours writing comments on student papers, knowing those students will not read the comments, or when a teacher educator works to intellectually stimulate teaching candidates only to hear those candidates wonder what intellectual work has to do with "being good with the kids"—those teachers struggle with and fear the meaninglessness of their endeavor. But these fears inhere in teaching. They will always be with us. These are not the fears that have driven teachers to embrace the policies, language, and practices I have been mapping, although they provide the background anxieties that will be amplified and echo in newer fears, fears fueled by media reports, economic shifts, and the constant drone of criticism, fears that have to do with race, crime, and the economy.

In *Governing through Crime: How the War on Crime Transformed American Democracy and Created a Culture of Fear*, Jonathan Simon argues that contemporary attitudes and approaches toward crime and criminals have shaped how we think about other aspects of public life, including education. According to Simon, crime has come to serve as an explanation for and mode of understanding phenomena, such that new forms of authority can be more easily imposed. "[I]t is crime," he argues, "through which other problems are recognized, defined and acted upon" (2007, 14). So, for example,

> it is not a great jump to go from (a) concerns about juvenile crime through (b) measures in schools that treat students primarily as potential criminals or victims, and, (c) later still, to attacks on academic failure as a kind of crime *someone* must be held accountable for, whether it be the student (no more "social passing"), teachers (pay tied to test scores), or whole schools (closures as a result of failing test scores).
>
> (4–5)

Crime, according to Simon, became an explosive political issue, first during the civil rights era, when white, southern politicians used it to resist the civil rights movement, and then later during the 1960s and 1970s when it was associated with riots and student revolts. President Johnson, recall, defined crime as one of America's most urgent problems, and by the 1970s Nixon's law and order campaign pushed even Democrats to stop talking about the causes of crime and start talking about harsher penalties, victims' rights, and the end of "coddling" criminals. In the 1980s under Reagan and then Bush, the war on drugs and the war on crime were mobilizing issues for the right, and crime and criminals received increasing attention in the media, not in terms of the causes of crime or the rehabilitation of criminals but in terms of punishment and victims' rights. The push for tougher laws or standards intensified in the 1990s when, for example, California passed the three strikes law, and zero tolerance policies were widely instituted.

Whereas the intensive "war on crime," which Simon interprets as one of the many attacks on the New Deal and the civil rights movement, has led to the largest incarceration of "a definable group of Americans . . . on a more or less permanent basis, in a state of legal nonfreedom"(6) since the abolition of slavery, with present trends pointing to the prospect that "nearly . . . one in three black men, one in seven Hispanic men, and one in 17 white men will go to prison in their lifetime" (141), the war on crime has also affected education.

Although there has been violence in schools, "concentrated in zones of hardened poverty and social disadvantage" (210), most "experts agree that, [in general] schools are among the safest places for school-age children to be" (228). In fact, much of the fear about violence in schools is directly related to media fixation on the issue. Dorfman and Schiraldi (2001) found that in several categories, ranging from school safety to the difficulty of test taking, parents with personal experience in their local schools were much more likely to rate schools safe and doing a good job than were parents who relied on the media for their information about schools.

Furthermore, according to Simon, "crime's relevance to the discussion of school reform is dependent not on its actual prevalence but on its success as a rationale for recasting governance" (228); in other words, it has "provided a 'truth' of school crime that circulates across whole school systems" (210) and directly affects them. Simon writes:

> When a problem for 10 percent becomes the paradigm for all, it is the mark of the hold of crime over our contemporary political imagination . . . The framing of the danger as a national problem facing schools everywhere is an essentially political act that has consequences for schools environmentally, physically, pedagogically, and in terms of governance.
>
> (213)

One consequence, according to Simon, is that students as a population have been reframed as "a population of potential victims and perpetrators" (209). We saw the victim status in Bush's speech quoted in Chapter 4. The recent attention to bullying and to the seemingly random killings of students at colleges and suburban high schools has reinforced this perception. Another problem is that approaches to the unfounded perception that school violence is always waiting under the surface to erupt, mirror approaches to crime and criminals taken in the larger society: tougher laws, more sanctions, increased surveillance, and crackdowns, as opposed to attempts to understand the roots of the violence and take steps to address these. So, for example, we have "the growth of a professionalized security apparatus within schools and the routines and practices of using them" (175). We also have the following statistics: In 1996–1997 96 percent of public schools required visitor sign-ins; 80 percent had closed campus policies; 22 percent had a police officer or law enforcement official on premises; 19 percent conducted drug sweeps; and 1 percent had metal detectors (208). In 2000 over 75 percent of schools included prevention curriculum instruction or training and "had architectural features of the building to prevent crime or deal with problem behaviors"; over 50 percent had security and surveillance systems (208).

My point in mentioning Simon's work is not to remind us of the inequities of the prison/industrial complex (Davis, 2003) or to suggest that schools are like prisons (McCormick, 2004). Nor is my point that the fear of crime and criminals, particularly as that fear has been racialized and spread in the media, provides a backdrop for the fears that many teachers have, particularly white teachers who work in predominantly minority neighborhoods. Although I don't disagree with these points, they don't account for why teachers have embraced the discourses and practices of standards and accountability. I would argue, in fact, that many teachers in

urban public schools with predominantly minority populations, despite finding the scanning, police presence, surveillance cameras, and at times prison-like conditions of the schools minimally reassuring, more often find them dehumanizing.

The point I want to make is that the discourses and practices constitutive of audit culture provide a sense of control that is not explicitly coercive. Rather they recode the fears teachers normally have about teaching *and* the fears of violence, particularly black violence, fears reinforced by the media, in terms of procedures that are presented as helping kids. The result is not a heavy-handed, three strikes and you're out policy, although zero tolerance and other such approaches are prevalent. The result rather is a system that reconstitutes disciplinary control in terms of monitoring and ensuring academic achievement. Three strikes and you are out, tough love, holding kids accountable, ensuring there are consequences for not reaching the standard, keeping kids under surveillance and monitoring behavior—these practices and language are part of "governing through crime," but translated into education they become the language and practices of standards and accountability. High stakes testing, and the promised predictability, routine, certainty, and success that audit practices and policies promise, provide methods of control while allaying any qualms of conscience about imposing punitive punishments that smack of criminalizing students.

Given the fact that student discipline problems are the second major reason teachers give for leaving teaching, coming only after low compensation (Liu and Meyer, 2005), it is understandable that teachers would turn to the available language and practices of criminology—thus the talk of zero tolerance—but such a direct causal explanation ignores the fact that so many teachers, whereas they may feel frustrated by and fearful of the discipline problems in schools, also are repelled by the idea of treating kids like criminals. The management techniques proffered by audit regimes, however, offer a less explicitly punitive way of addressing those fears and frustrations, and, in fact, recode these fears as fears of students' academic problems, which those same techniques promise to address.

Whereas the metal detectors through which students must pass at the Bushwick School for Social Justice irk the students and make them feel like suspects, they also affect the teachers and visitors, reminding them that violence always lurks around the corner, raising the possibility that "these kids" may be carrying knives, box cutters, or guns, and that if teachers aren't watchful, things could get out of control. The required pass to enter Brooklyn College's campus may provide a sense of security, but it also subtly reminds everyone who enters that one must be on guard. I would argue that such a state of watchfulness, the presence of a low-level fear of potential violence, and, for white teachers, the fear of confrontation with a black student, these fears mix with the normal fears teachers

have, and produce a constant low-level fear, which can be addressed by audit practices because these promise security and, while subtly mirroring polices and practices associated with "the war on crime," allow teachers to rest easy that they are not treating students as perpetrators.

Like those policies governing crime, the language and practices of standards leave out any political or social analysis of why black and Latino/a students don't do as well as white students on standardized tests or why so many kids in poor communities do not succeed in schools at the rates more affluent students do or why there are these discipline problems in urban schools. As Simon writes, "A generation ago, racial inequality served as the pivot around which a vast reworking of governance of public schools took place . . . Today, crime in and around schools is playing a similar role as the problem that must be confronted" (2007, 207). Replacing a substantive focus on the roots of these problems, the language of standards and accountability recodes a call to action on a social level as the need for "highly qualified" teachers. Crime itself is recoded as low test scores: you don't pass the test, you don't graduate or move to the next grade; you don't pass the test, your teacher will be held accountable and docked a merit pay increase; the fact that black kids are disproportionately represented among dropouts and low scorers is a result of faulty parenting, poor teachers, low expectations, psychological problems, low self-esteem, a Eurocentric curriculum, or poor test preparation. Rather than look at the complexity of inequities in resource distribution, we recode that problem in terms of putting a "qualified teacher in every classroom," where quality is measured by test scores. We do not confront head-on the skewed distribution of funds and resources, but accept the "reality" of their shrinkage and accommodate. The fear of violence, however, is not the only fear that I believe has led teachers, educators, and administrators to embrace the language, logics, values, and practices of the marketplace. There is another fear—the fear of dwindling resources.

When the School of Education at Brooklyn College was preparing for the NCATE visit, one of the apparent benefits of the accreditation, we were told, was that the report we prepared and NCATE's own evaluation could well lead to new faculty lines. Initially that proved true, but as budgets have dwindled, lines have become scarce. At the time of our preparing for NCATE, one of the speakers whom we invited to address faculty and administrators about shrinking budgets was Alan Guskin, president emeritus of Antioch University and co-director of the Project on the Future of Higher Education at Antioch University. His talk focused on how to restructure higher education in a climate of scarce resources and recapitulated many of the points he makes in his co-authored article, "Dealing with the Future Now: Principles for Creating a Vital Campus in a Climate of Restricted Resources." Although Guskin and Marcy (2003) write in the article about colleges and universities, much of what they say

holds for public K–12 schools, particularly now that we are in a recession and as public high schools in New York City have just learned that their budgets have been severely cut.

Guskin and Marcy (2003) claim that because colleges and universities—I would add public schools—are "facing dire budgetary circumstances" (1), in order to "assure quality student learning and decent faculty work life" (2) we need to "fundamentally restructure" our schools. Attributing the budget shrinkage to an eroding tax base and explosion in health care costs, he argues that money will not be pouring in any time soon. It is not news that resources for public education have never been luxuriant, or that the salaries of teachers and professors are a source of perennial complaint. For public school teachers, poor compensation is the main reason they leave the profession. But according to Guskin resources are only going to get tighter.

In order to address the cutbacks and shrinking financial resources, Guskin recommends a kind of downsizing that involves the following: defining very specifically learning outcomes; employing distance learning; creating entrepreneurial centers that devote themselves to fundraising; introducing auditing practices wherever possible; increasing class sizes; focusing on faculty productivity by reducing the amount of time faculty spend on each student; establishing common institution-wide assessment systems that measure demonstrated learning; instituting mastery-based credentialing and life experience credits; diversifying roles of faculty so they are mentoring, lecturing, leading discussions, assessing student mastery, and administrating; aligning the curriculum so it is not redundant and so it is reduced in its overall size; outsourcing computing, counseling, and basic administrative services; and providing faculty development in terms of how to design and assess learning outcomes and perform their new functions.

Whether or not Guskin's predictions about continuing shrinking budgets are correct, and I believe they are, what is crucial to understand is that the constant fear of dwindling resources leads educators to import practices from the business world, as if that is our only choice. Given, however, a culture in which teachers and professors are now "shareholders" in the stock market and have their fortunes tied to the ebbs and flows of corporate America, and given the esteem lavished on business leaders, it is not surprising that it is to the world of business and finance that administrators turn when confronted with scarce dollars. What do I mean?

In his monumental history of Wall Street, *Every Man a Speculator*, Steve Fraser (2005) traces the decline of public confidence in the Street after the Great Depression. According to Fraser, between 1940 and 1980, the stock market and corporate America maintained a low profile and often were the objects of the public's suspicion. Ronald Reagan's election changed that. Fraser's history of the return of confidence in and then

devotion to the Street is consistent with Harvey's history of the rise of neoliberalism. Both scholars trace the phenomena to the late 1970s and the election of Reagan. Fraser concludes that "beginning with Ronald Reagan . . . the Street reemerged as a site of . . . a counterrevolution against the New Deal" dismantling "every piece of government regulatory apparatus it could lay its hands on" (xx). Today we can call America a "shareholder nation," although as Fraser is careful to point out, the profits from those shares go disproportionately to the wealthy. Important to note here is that as the market regained its luster, as annuities and stocks grew in importance, teachers came increasingly to see the market, not as a risk, but as a way to protect their future. Business and the world of finance seemed to be the star to which everyone's future was hooked. As Fraser puts it, "The stock market . . . became the medium in which one discovered freedom and truth: the freedom to determine your own fortune and fate; the truth that resided in the inexorable and all knowing operations of the unencumbered marketplace" (587).

Once individuals, institutions, and organizations bound their fate to the market, the movers and shakers in that market took on a veneer of wisdom. The millionaires and billionaires, and those who worked for them, seemed to know something everyone else either wanted to know or respected. And if individuals, institutions, and organizations found that times were tough and that fears of further calamity swirled round, then the best way to deal with the fears and the problems was to apply the same methods used by those in whose hands our financial fate lay. Furthermore, the very politicians to whom educators went to beg for money had more often than not come from the world of business or corporate law. When these politicians asked for evidence of success, they demanded evidence produced by the very procedures with which they were familiar: evidence shown by the bottom line, by quantitative data, by numbers.

Important to keep in mind here is that whereas politicians and business men raise alarms about a nation at risk or imminent catastrophe and blame educators for these, those same politicians demand much stricter accounting and obeisance from those educators than they ever do from corporations, which have been plagued by scandals, or from a military, which, at least in the last half century, cannot claim many victories or wise decisions. At the spring 2008 senate and house hearings at which General Petraeus and Ambassador Crocker testified, clear delineation of benchmarks and targets, accountability for a rising death toll and a stymied operation, and adherence to standards of warfare seemed elusive, and yet monies were promised and senators and representative fell over themselves expressing their admiration for the general and the men and women who serve (Kaplan, 2007). One can only imagine the scenario if representatives from AACTE or NEA asked for more money but refused to set any goals or provide any plans for success or evaded questions

about standards. Furthermore, as we have seen, when warnings of a crisis in education are raised, it is not educators and teachers who dominate the conversation about such a crisis but rather the private corporate sector. Should there be a crisis in the military or in the stock market, however, the experts in those fields are charged with addressing it. Endless funding seems available for the military and Wall Street, just not for education, which, remember, is charged with solving our economic, racial, and civic problems.

While educators and teachers have clutched at the practices and logics of the business world as a way to alleviate or address explicit and unspoken fears, teacher educators have been driven by another fear—the fear that schools of education would be privatized. Certainly leaders of the American Association of Colleges for Teacher Education have expressed those fears as have many deans of colleges of education. One of the justifications for turning to NCATE was that it offered a bulwark against privatization. That bulwark has proved a leaky dike, as NCATE has moved to accredit its first distance learning program, Western Governor's University, and ponders accrediting for-profit institutions (Keller, 2006). More important though, the fear of having to close their doors has prompted teacher educators to claim a professional status modeled on medicine and engineering in the hope that such a claimed status would yield greater respect in the form of resources and protection from privatization. The assertion that education and its practices are based on a body of scientifically sound protocols and proven knowledge and that teaching can be measured with numerical data has not led to greater autonomy, more resources, a halt to privatization, or the ebbing of corporate intrusion into education. On the contrary, as Imig's and Ravitch's comments at the beginning of this chapter attest, that claim has eventuated in the erosion of teacher autonomy and public education.

My point is that the fear of diminishing resources for teachers and schools, the fear of cutbacks in budgets, and the fear of privatization have led educators to adapt the very methods prevalent in the world of business and high finance, a world in which educators and educational institutions are heavily invested and that they trust as knowing how to handle financial problems. Not unlike a kid who asks for a raise in allowance and hears from his parents that he must raise his grades to get it, so educators ask politicians for money and are told they had better raise their test scores. The difference is, of course, that educators are a bit too old to be wards of the state, yet so often they go sheepishly and outdo one another trying to please those legislators, as if self-flagellation would convince those controlling the purse strings that we were good enough for a raise.

And finally, there is in schools a kind of fear that results from the actual implementation of audit practices. One begins to feel under surveillance,

although, as we saw in Chapter 5, it's not as if anyone is peering over one's shoulder. One senses there is never enough time to do everything, that one can never be good enough, and one begins to feel that responding to the newest directive is equivalent to thinking about teaching and curriculum.

In a climate of scarce resources, when faculty members are overburdened, they lack the time and help to reflect. In such a climate time speeds up, a sense prevails that one can only respond to the next crisis, and feelings of disorder and chaos mount. In schools of education, more and more time is spent in meetings, on committees, working on public documents, and less time is spent alone or with others in tranquil contemplation, scholarly research, and speculative discussions. In K–12 schools it seems harder and harder to bring any order to the situation, so necessary aspects of a school are neglected, such as addressing real questions of what it means to teach writing to our students or how we might make public statements about the current state of affairs in education or what the questions are about small school reform, field-based education, or the resegregation of schools. There is no time for faculty to engage in discussions about their own writing, their own interests, or even their own approaches to teaching and curriculum. Instead the race to achieve higher scores or ratings takes hold. Because teachers, professors, and administrators spend their time racing to respond to the newest requirements or mandates, over which they have no control, there follows a sense of things being "out of control." As school districts "decentralize," administrators don't know whom to ask for advice. Left to their own devices as they strive to meet production goals, they reach for the most available answers. Faced with a sense of chaos, teachers, administrators, and teacher educators can find the packaged curriculum, the rubrics, the data aggregation systems, and the "best practices" very compelling.

But fear is not the only force propelling us to embrace or surrender to the alluring language and practices of the business world. We educators also don't appear to have enough faith in our field and ourselves to resist the lure. It is not surprising given how much we are made to feel ashamed of our work.

Shame

> [P]ersons were to be governed not through imposing duties, but by throwing a web of visibilities, of public codes and private embarrassments over personal conduct: we might term this government through the calculated administration of shame. Shame here was to entail an anxiety over the exterior deportment of the self, linked to an injunction to care for oneself in the name of the public manifestation of moral code.
>
> —Nikolas Rose (2003, 73)

> The loud voiced rumour, mother of my shame.
>
> —Sophocles, *Ajax*

2008 was the twenty-fifth anniversary of *A Nation at Risk*. For a quarter of a century, no matter what the state of the economy has been, regardless of the ups and downs in student test scores and graduation rates, in spite of consistent cutbacks in funding for public education, a decline in real wages, and the consistently widening gap between the wealthy and the poor, public school teachers, teacher educators, school administrators, and professors have been charged with failing to adequately prepare students for the workforce, for democracy, or for academic success. Whether, as *A Nation at Risk* charged, teachers are a kind of fifth column—remember "if an unfriendly foreign 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" (quoted in Gordon, 2003, 167)—or, as Secretary of Education Rod Paige, referring to the NEA, claimed, in the midst of a "war on terror," terrorists, we teachers have often been blamed for whatever ails the nation. We have been held responsible for racial problems in the U.S., for the increasing incarceration rates of minorities and the poor, for the purported failures of our students and workers in the past, for the assumed failures in the present, and for those projected in the future. We have been accused of incompetence, stupidity, and political indoctrination. We have been chastised for "dumbing down" the curriculum, for goldbricking on tenure, for teaching "Mickey Mouse" courses, for doing a disservice to poor and minority children, and for spewing out elitist folderol. If test scores are low, we haven't taught; if they are high, we are guilty of grade inflation. We are too theoretical or not theoretical enough. The language we use is too arcane and esoteric or simply the nonsense of "edu-speak." Overall, we inadequately prepare our students and fail to educate our teachers.

For our purported shortcomings, failures and inadequacies we are not only publicly pilloried in the media, but also shamed by league tables, and school report cards, and lists of the most dangerous teachers. We are threatened with school closings, withdrawal of accreditation, and the withholding of merit pay if we fail to meet production standards. We are often objects of contempt or condescension. We are told that if we don't shape up, public education will go the way of welfare or health insurance or unions. In other words we'll all be working for private corporations or out of work. And we are subjected to a barrage of advice from individuals who have never taught, but apparently, because they went to school or made money or run a business, feel entitled to tell us how to teach, what to teach, and how to organize schools, classrooms, and curricula.

It appears, however, that only teachers and schools of education are held responsible for the current and future condition of those whom they

serve. When was the last time anyone blamed business schools for the failing economy or corporate scandals? The idea that if there were a major financial crisis, business schools would be lectured to by educators and teachers and held accountable by politicians advised by, for example, curriculum theorists, is unimaginable, unless, of course, one recalls that the reverse is exactly what has happened in education. Have there been any recent articles blaming medical schools for high infant mortality rates or levels of obesity in the U.S.? When did you last read an expose holding seminaries responsible for sexual abuse of parishioners or for the moral character of the nation? When did you last hear ministers being held accountable for their parishioners' sins or physicians blamed for their patients' illnesses or defense lawyers held accountable for the high rates of incarceration? Conversely, can you remember when you last heard of educators who—apparently responsible for young people's levels of civic responsibility, work ethic, and intellectual prowess—wielded power on the boards of advertising agencies, media corporations, apparel businesses, or food suppliers, all of whom target the youth of our nation? Do you remember reading countless articles in the late 1990s, when the economy was booming, attributing that success to teachers? In all those reports on how meretricious popular culture is, do you recall praise for all the teachers who champion values other than those of the marketplace? It appears teachers, teacher educators, and professors hold the privilege of being the scapegoat and the whipping boy for the nation.

And yet at the same time, there are those individuals among us, such as Jaime Escalante or Rafe Esquith or Erin Gruwell, whose stories, often depicted in Hollywood films, popular books, and countless articles, are held up as exemplars of "great teachers," teachers who "make a difference." These individual teachers, like their fictional counterparts, are used to substantiate claims that the most important factor in whether or not students learn is the teacher, that education is "all about the kids," and that if each of us just worked as hard as these heroic teachers, used the methods or "best practices" they used, cared about the kids as much as they did, then our nation's young would finally get a great education and many of our problems would be solved. Adding irony to the romantic fictionalization of teaching is the depiction of these teachers as rebels, who, bucking the straightjacket of systematized teaching, find a way to "reach the kids."

On one hand, then, we are held up as saviors, rescuers, saints, and angels, and on the other cast as buffoons, sadists, milquetoasts, or incompetents. These images or versions of teachers circulate in the public imaginary, fueling feelings of shame. Psychoanalysis speculates that shame, as opposed to guilt, results from failure to live up to our ego ideal or the ideal image we hold of ourselves. Certainly we teachers are presented daily with versions of such an ideal. Posters in the subway call us to teach

because teachers are remembered, teachers "make a difference," teachers shape the next generation. Of course as one rides on the subway, one can read in the daily newspaper accounts of how poorly teachers do on their exams or how little they know or how silly their education classes are or how inadequate they are in preparing their students. Here are just two reports that appeared in the paper of record, the *New York Times*, in one month. They are typical.

On April 25, 2008, Edward Fisk on the Op-Ed page of the *New York Times* wrote:

> To put it bluntly . . . American education is in turmoil. Most troubling are the numbers on educational attainment . . . We are failing to provide nearly one-third of our young people with even minimal education required to be functioning citizens and workers in a global economy.

On April 22, 2008, Bob Herbert, a regular *New York Times* Op-Ed columnist, warned, "Ignorance in the U.S. . . . is widespread." In the article he uncritically cited the comments of Allan Golston, the president of U.S. programs for the Bill and Melinda Gates Foundation, who said, "[r]oughly a third of all American high school students drop out. Another third graduate but are not prepared for the next stage of life . . . And by the 12th grade, U.S. students are scoring generally near the bottom of all industrialized countries."

These articles, implying that teachers could if they only would or would if they only could fix the economic future of our country, constitute a tiny percentage of the daily reports, articles, essays, and books on how teachers hold our youth in their hands but keep dropping them. These versions of teachers as ministering angels or mindless slackers have no particular political allegiance; one finds them on the right and the left. Nor are they fostered and sustained only by those outside the field of education.

The construction and presentation of the ideal teacher and the concomitant teacher bashing provoke an enormous sense of shame among educators, such that teachers are almost surprised when one reminds them that there is no other profession committed to keeping alive among the nation's youth the dying flame of intellectual curiosity and offering perhaps the only public place where the hegemony of the market can be questioned. Particularly disturbing is that the very representations of teachers that serve to shame them come from educators themselves. Let us consider a few of these.

First, we have Arthur Levine's *Educating School Teachers*. A scathing critique of schools of education, the report exemplifies the kind of alarmist rhetoric, derogatory view of teachers and teacher educators that can provoke feelings of worthlessness in the face of what is supposed to

be. I would argue that the very shame such reports evoke make teachers particularly vulnerable to the "recommendations" that are then advanced to address the failings outlined. Levine, the ex-President of Teachers College at Columbia University, begins by repeating a refrain we have heard before:

> More than ever before, it is imperative to have high-quality teachers. In today's information economy, education has become the engine driving the future of the country and of our children. To obtain a decent job and support a family . . . [t]o compete in a global marketplace and sustain a democratic society, the United States requires the most educated population in history. For these reasons, the future is in the hands of the nation's teachers. The quality of tomorrow will be no better than the quality of our teacher force.
>
> (Levine, 2006a, 11)

That's quite a responsibility. The economic and political future of our country, as well as the future of its individual citizens, rests in the hands of teachers, and even though the greatest number of jobs are in the service sector, teachers must prepare all children to be the most educated of any generation. Here is the ego ideal presented in all its grandeur. Unfortunately, and here comes the bashing, according to Levine, U.S. teachers are ill equipped for such a responsibility.

The report states, "The nation's teacher education programs are inadequately preparing their graduates to meet the realities of today's standards-based, accountability-driven classrooms, in which the primary measure of success is student achievement" (Levine, 2006b, 1). Sounding like Lee Shulman (see Chapter 4), Levine calls teacher education a kind of "Wild West, unruly and chaotic" (2006a, 109). Standards for admission are low, the curriculum is motley and incoherent, and students graduate without the skills and knowledge necessary to teach. Based on surveys of alumni and principals, Levine found that students were dismally unprepared to work with parents and students from diverse backgrounds, to help students with limited English proficiency, to implement curriculum and performance standards, to use proper assessments, to integrate technology, and to manage a classroom. Furthermore, insufficient quality control, faculty whose research lacks rigor, and disparities in academic quality of the institutions housing teacher preparation programs have collectively produced weak teachers.

Faced with such a harrowing picture, how should programs improve? First, they should become professional schools focused on school practice. Second, they should focus on student achievement tracked over time and then use this data on achievement as a way to ascertain the impact

of a particular teacher education program. Three, programs should make sure teachers major in a subject other than education. Four, they should ensure teacher accreditation organizations measure success in terms of student achievement. Five, if they don't measure up, they should be closed. Finally, the report concludes by warning that if teacher preparation programs do not heed the advice they "face the very real danger that they will disappear" (Levine, 2006a, 114).

So, what we have here are the following: an unrealistic and grandiose view of teachers' responsibilities, that is an idealized version of teacher as savior of our nation, coupled with a conclusion that teachers are failing to live up to such an ideal because they are so badly prepared. If they were just better prepared, all would be right. Although the report focuses on new teachers, the fact that teacher preparation programs have been educating teachers for generations and are today more aligned with Levine's recommendations than ever implies that most, if not all, teachers are failing. Aside from linking test scores to teacher success, assuming education is equivalent to those scores, and assuming our nation's economic competitiveness and health are determined by how well students do on "bubble tests"—all assumptions that are questionable and that have been challenged—there is something incredibly sadistic about this report, as there is about so many of the reports that proliferate.

Consider for example, *Teaching at Risk: A Call to Action*, Lou Gerstner's 2004 alarm, or *The Trouble with Ed Schools*, David Labaree's (2004) lament over the purportedly deserved low status of schools of education, or NCTAF's *Building a 21st Century U.S. Education System*, in which Bob Wehling writes that "everything Thomas Friedman envisions in *The World Is Flat* is true," that "our future economy and the availability of well paid, career ladder, full benefit jobs for our children and grandchildren depend upon radical improvement in the outcomes of our public education system," and "that dozens of other countries . . . are making significantly better progress than we are" (Wehling and Schneider, 2007, 1). Even the recent—April 2008—report *Democracy at Risk: The Need for a New Federal Policy in Education*, written by such educational progressives as Linda Darling-Hammond, John Goodlad, Gloria Ladson Billings, Deborah Meier, Pedro Noguera, and Ted Sizer, opens with "The welfare of our nation rests heavily upon our system of public education" (Forum for Education and Democracy, 2008, i) and warns that "educational achievement and attainment have fallen" (ii). Although the report's focus on resources and increased spending, and its commitment to public education are admirable, the report sustains a belief that if we "reform" the schools, teachers, and curriculum, our democracy will be saved—a rather grandiose claim.

Another recent article, one written by Linda Darling-Hammond, subtly positions the teacher as responsible for keeping young people out of

prison and off welfare. In the October 2006 issue of *Educational Researcher* appears the 2006 DeWitt Wallace–Reader's Digest Distinguished Lecture by Linda Darling-Hammond. Darling-Hammond begins by summarizing the current state of inequality in education in the U.S. today. She writes

> International assessments reveal that America's schools are among the most unequal in the industrialized world in terms of spending, curriculum offerings, teaching quality, and outcomes.
>
> (2006, 13)

> [S]chools serving large numbers of students of color have significantly fewer resources than schools serving mostly White students . . . Such profound inequalities in resource allocations are supported by the increasing resegregation of schools over the decades of the 1980s and '90s . . . [R]acially segregated schools are almost always schools with high concentrations of poverty.
>
> (14)

Darling-Hammond goes on to suggest the link between poor education and crime and welfare dependency: "Because the economy can no longer absorb many unskilled workers at decent wages, lack of education is increasingly linked to crime and welfare dependency" (14). Many states, she points out, spend more on prisons than on schools. As a result poor and minority students are deprived of "skilled teachers and other resources that could enable them to become literate and ultimately, gainfully employed" (14). Without skilled teachers, the students don't learn, don't become literate, and don't get jobs. In her own research in South Carolina, she tells us, she found that "measures of teacher qualification alone accounted for 64% of the total variance in student outcomes" (16). Our task then is to make sure every student has a qualified teacher. A qualified teacher is someone who ensures students learn. Learning is measured by tests.

> How do we create strong teachers? By relying on standard-setting by professional bodies . . . [S]tandards for program accreditation, candidate licensing, and advanced certification comprise a "three-legged stool" (NCTAF, 1996) that supports quality assurance in the mature professions.
>
> (18)

As examples she cites the National Board for Professional Teaching Standards (NBPTS), Interstate New Teacher Assessment and Support

Consortium (INTASC), and particularly the National Council for Accreditation of Teacher Education (NCATE). The standards that these organizations set, she claims "examin[e] teaching in the light of learning[;] these new standards put consideration of effectiveness at the center of practice" (18).

So let's review what has happened here. First, we hear of the "savage inequalities" in public education. These adversely affect poor, working-class, and minority students and contribute to those populations' being disproportionately represented in prisons and on welfare rolls. Educators can do something about the racism and class war implicit in these realities. What can they do? They can do a better job of educating themselves, training themselves, because the single most important factor in a child's success, i.e. learning, is the teacher, who, if properly prepared can ensure that the student will do well on exams and not wind up in prison or on the welfare rolls. Unprepared teachers lead to imprisonment and unemployment. Prepared teachers lead students to gainful employment and socially acceptable behaviors. How do we prepare teachers? By holding them accountable and ensuring they use "best practices." What do we hold them accountable for? Their results and their students' results on exams.

Racism, poverty, class warfare, political corruption, as well as specific individual and local problems are translated into lack of qualified teachers, who can be produced if we just have the right standards and practices in place. Furthermore, we'll know we have succeeded by the results on tests taken by the teachers and by the students. Progressive educational projects are transformed by translating them into rationales for greater accountability and by reconfiguring pressing social and political issues as the responsibility of teachers, who can only meet that responsibility by surrendering to disciplinary technologies and audit practices, such as those required by NCATE or NCLB or state and local educational regulatory agencies. Social, political, and economic problems have been resignified as the fault of bad teaching, which in turn is held responsible for the quantifiable failure of students to learn. That failure lands students in jail or on the welfare rolls or in the ranks of the unemployed and destitute.

It's a remarkable sleight of hand. The best way we educators can address serious social, political, and economic problems is to comply with regulatory agencies and their mandated audit practices, subject ourselves to control from afar, render ourselves and our situations as quantifiable data, and surrender to normalizing discourses that drain our subjectivities.

My point in mentioning these documents, and in particular Arthur Levine's, is to suggest that the unrealistic expectations placed on teachers, teacher educators, and schools lead only to more teacher bashing, and create a vicious cycle of shaming. In turn that shame leads teachers and

educators to aspire to the professional status held by medicine or engineering or law or business. With that aspiration comes a willingness to adopt the language and practices of standards and accountability, which are presented as central to professionalization, as a way to secure scarce resources, as a way to protect us from the contempt of the media and our academic colleagues, and as a guarantee that we can regain the public's trust that has apparently been lost. I say "apparently" because polls continue to show that teachers are the most trusted of all professionals, way above the politicians and business leaders who whip us with accusations of lack of accountability.

But the shame teachers feel is not only a result of how we are represented. It is also provoked by the fantasies of grandiosity and worthlessness that, although perhaps exacerbated by others, also seem to inhere in the psyches of teachers.

Fantasies

> [F]antasy tells me what I am to others.
>
> —Slavoj Zizek (1997, 9)

In *Teach Like Your Hair's on Fire: the Methods and Madness Inside Room 56*, a fifth grade teacher, Rafe Esquith (2007), who works in an inner city L.A. school, describes an incident involving himself, one of his students, and a chemistry experiment. Esquith writes,

> In trying to get [the student's] alcohol burner to light, I set my hair on fire and didn't even know it until the kids started screaming. But as ridiculous as that was, I actually thought, if I could care so much I didn't even know my hair was on fire, I was moving in the right direction as a teacher—I realized that you have to ignore all the crap, and the children are the only thing that matter.
>
> (2)

Literally immolating himself, Mr. Esquith clearly believes sacrificing oneself for the children is essential to good teaching, and whether we take his hair as synecdoche or symbol, the "crap" Mr. Esquith ignores refers to himself or his own power. On one level his life is clearly worth less than the lives of his students. On another level, however, like so many teachers in narratives of sacrifice, salvation, and rescue, he emerges as heroic. Fantasies of grandiosity and feelings of worthlessness unite in the commitment to sacrificing oneself for the students, who are all that matter.

This focus on the student is, of course, nothing new. The primary focus of education has historically been on students: their learning,

their development, their well-being, their behaviors, their socio-cultural backgrounds, their deficits, their assets, their needs, and more recently their brains. When we do turn our attention to teachers, now deemed by so many educators to be the crucial factor in student learning, we do so in order to improve teachers' dispositions or abilities, so they can better intervene in students' learning processes—think of the standards and rubrics for the obligatory critical self-reflection in teacher education programs. We assume teaching is a service profession and that our *raison d'etre* is to serve the learning needs of students. As Robert Coles (1993) in *The Call of Service* writes, without any sense of irony, about the nine-year-old African American girl who integrated the New Orleans school system, we have "connected a civic moment . . . with a larger ideal, and in doing so . . . learned to regard ourselves as a servant, as . . . called to service" (6). It is interesting in passing to note that the word "serve" is etymologically associated with both slavery and adoration—worthlessness and grandiosity.

We can understand the tunnel vision focus on students, the positioning of teachers as responsible for their success or failure, and the equation of teaching with self-sacrifice and service in several ways. For example, we can interpret them in terms of the historical association of teaching with women and the consequent collapse of a professional ethos into the ideology of what Virginia Woolf termed the "angel in the house," that is the drive to sacrifice oneself daily, to sympathize with the minds and wishes of others, and to be utterly unselfish (Grumet, 1988). One wonders if Levine has such a view in his bashing of teacher education and how much the sadism of his and others' critiques is a function of misogyny (Pinar, 2004). Or we might see the focus on students and call to service as a way for self-identified heterosexual male teachers to compensate for their own sense of feminized and therefore suspected homosexual identity—my work is so important, I am so central to the lives of these students, that my sacrifice allows me to occupy the archetypal position of the solitary hero who, like Shane, rides in, saves the day, and leaves to entreaties of "Come back, Shane." That so many young, particularly white, male teachers leave high school teaching after a few years lends a particular gravity to this latter interpretation.

However we read them, the focus on students, the belief that student success depends on teachers, and the valorization of self-sacrifice have, today, ironically contributed to the disappearance of teachers into an assemblage of "best practices." Audit culture's assumption that if it can't be measured, it doesn't exist, and neoliberalism's assumption that the only good identity is an entrepreneurial one, lure teachers into sacrificing their autonomy, inner life, and political engagement for the promise of certainty, professionalism, and local celebrity. This is a very different sacrifice than the one that Mr. Esquith had in mind, but they are connected.

The claim that only the children matter and the belief that teachers become not only good but heroic by sacrificing themselves for the kids sustain as they mask powerful fantasies of omnipotence. Those fantasies defend against feelings of humiliation and worthlessness, yet, paradoxically, provoke those very feelings. Furthermore, the logics of sacrifice and the claim that education and schooling are and should be "all about the kids" result in the embrace by teachers of their own surveillance and control by audit practices, which in turn exacerbate these feelings of inadequacy.

Fantasy, as it is generally used in psychoanalysis, falls into two categories. The first category contains *conscious* fantasies. The second category contains *unconscious* fantasies. I am concerned here only with conscious fantasies. These can be pleasurable or disturbing. Psychoanalysis argues that in either case, fantasies, like dreams, reconfigure or respond in a disguised fashion to some repressed wish or defend against some repressed ideation or feeling. Furthermore, according to psychoanalytic theory, fantasies, whether pleasing or disturbing, also support and sustain our understanding of reality, the sense that somewhere it all means something. For children, to take one example, the fantasy of parental omniscience or invulnerability protects their psyche from the pain and confusion of realizing they may be dependent on a vulnerable adult. For an adult, to take another example, the fantasy that if we only had *x* we would be happy sustains our sense of a secure and meaningful reality, even if it is one not in our possession. For teachers, fantasies, that if we just find the right practice or the right curriculum or the right way to educate teachers *all* students will learn, sustain the sense that our work is or at least could be meaningful. Such fantasies suggest that we will finally be recognized by what the French psychoanalyst Jacques Lacan (2006/1970) referred to as the big Other, that is society or God or some agency that we presuppose can guarantee our worth. These fantasies assume a coherent world, where answers lie with those presumed to know, where solutions and blame are clear but exist external to us. They defend against the lack within our selves and the fallibility of the big Other, against a sense of meaninglessness, against the possibility of our own freedom, and against the knowledge of our complicity in our own suffering.

The fantasy that classroom success lies in "best practices" can defend paradoxically against the fear that one's own interests are not enough to form a curriculum or against feelings of aggression towards the students or a sense of insignificance. Wouldn't it be easier if one's choices were determined by someone else? Safer to go the NCATE way, safer to focus on previously established student needs, safer to withdraw into comforting fantasies, than to take the risk of following one's own interests or acknowledging one's own ambivalent feelings about particular students.

Furthermore, as we have seen, teachers work under conditions that

remind them regularly of their worthlessness, hear others tell them constantly that their efforts are meaningless. What *can* feel as if they give teachers' work meaning are the very sacrifices that they make, because those sacrifices seem to guarantee through presupposition that there really is a consistent big Other in whose gaze their work does have meaning. How much safer it is to imagine that one's self-sacrifice confers meaning on what one does, how much better to enjoy the fiction that we are the most crucial factors in our students' learning, how much more satisfying it is to tie our students' learning to our work and our sacrifices than it is to acknowledge that there is no final meaning in our work other than the meaning we make of it! And how seductive are the claims of those educators who tell us how central we are to students, how it's all about the students, and they are all about us—and how easily we are led from there to a very different sacrifice—that of our very subjectivity as we disappear into the "best practices" that sustain our fantasies of omnipotence, provoke our sense of emptiness, and hystericize us as we turn more and more to student evaluations, performance evaluations and the gaze of the big Other to tell us who we are and how we are doing.

Is it any wonder that so many educators have embraced accountability and standards and have found in neoliberal audit practices the guarantee of their identity? According to Slavoj Zizek (1989), who is following Lacan here, a particular ideological formation, such as that signified by standards and accountability, holds us by offering at the level of fantasy a particular irrational enjoyment. The enjoyment offered by neoliberal audit practices accompanies the very fantasies those practices sustain and provoke: fantasies of grandiosity and self-abasement, fantasies of knowing and becoming what the big Other wants, and fantasies of control.

Let us take the language and logics I presented in Chapter 4. They tell me that I am the most important factor in a child's success in school; that if I abide by the rules I will be highly qualified and thus gain professional status; that if I really promote myself and produce results I'll earn more and be recognized by those who know what good teaching is; that I can close the achievement gap, i.e. solve the race problem, and ensure students' economic success, i.e. solve the class problem; and finally, that the sacrifices I make for the children will ensure my nation's gratitude. Teachers know that these claims ring hollow and yet there is no wholesale rejection of these policies or the organizations that promulgate them. Why? On one level they sustain the fantasy of grandiosity and worthlessness and thus provide the enjoyment these fantasies offer. I am a true professional now, like a physician, recognized by those in the know, and possessing scientifically based research practices. I am saving poor kids of color. We are making sure those terrible failing schools will be held accountable. Oh, but my classes are not going so well, kids are not passing their high

stakes exams, what a failure I am. I'd better focus even more on the tests, data, and best practices.

The question arises then, what would it mean to give up the fantasies that sustain feelings of worthlessness? What would it mean to renounce claims that "it's all about the kids," that we are central to students' learning, and that self-sacrifice and service provide our identity? It would mean in part renouncing support for our projects in the big Other. In other words, it would mean facing our own flaws, passions, desires, and the fact that there is no final arbiter to provide meaning or a guarantee of our endeavors. It would mean facing our own possible freedom, sinking into the messiness and arbitrariness of what we do, and finding meaning not in self-sacrifice, not in "best practices," not in fantasies of being adored, but rather in our own intellectual journeys in teaching. It would mean understanding teaching not as social work, or missionary work, or service or servitude. It would mean not confusing self-sacrifice with professional dignity.

Crucial to understanding how so many educators came to embrace the policies and practices of accountability is that fantasies of grandiosity and worthlessness, fantasies that perhaps inherently are part of what it means to be a teacher, are provoked, intensified, and sustained by the language of these policies and practices. How wonderful to believe that one can exert profound influence over another human being and on the future of the nation. How compelling to believe that we can solve the problems afflicting the United States, our cities, or our neighborhood through our teaching. How dispiriting to find that our influence was less than we presumed, that our efforts were not as successful as we had hoped. A sense of failure sets in. A sense of loneliness abides. But if we follow "best practices," if we hold ourselves and our students to the standards set by those who know more than we, if we standardize our teaching and curriculum, then we will not fail. If we give kids the right medicine, if we apply the right measurement and build solid foundations, if we abide by the protocols, we'll succeed, particularly if we sacrifice ourselves. When we don't, there will be other sure-fire methods that work, and there will be more sacrifices we can make, because if we don't ensure that all students learn, we have failed. Darling-Hammond, Bransford, and Le Page write,

> [A] central part of being a professional teacher is a commitment to help all students succeed. Educators who have made a commitment to help all students succeed have demonstrated that it is indeed possible to do so . . . but it has taken a great deal of work.
>
> (2005, 6).

The fears, the shame, and the fantasies that teachers experience, which are fomented by the media, by politicians, by business people, and by

educators, certainly contribute to educators' acquiescence to the language of standards and accountability and audit practices. I want to suggest that there is another reason they have been willing to surrender their autonomy, and that reason has to do with a real sense of loss.

Loss, Guilt, and the Melancholic Embrace of Audit

> The silence on this question . . . makes it all the harder to reopen the discussion of apartheid education on a scale and with an unembarrassed honesty that can ignite a badly needed national debate.
>
> —Jonathan Kozol (2005, 309)

During the preparation for NCATE, even though I was working hard to ensure we passed the accreditation, it was not unusual for me to engage in discussions in which I would voice my criticism of NCATE and the process. I remember one exchange with a colleague who believed NCATE was helping the School of Education by forcing us to talk about teaching and curriculum. I objected to the idea that NCATE led to substantive discussions. I suggested that the pressure to focus on narrow performance outcomes kept us from addressing larger issues, such as the failure of integration or the increase in poverty. My colleague's response was, "Those problems are too big. They are beyond our control."

My colleague's comment is interesting for several reasons. On one level she was, of course, right. Any massive social problem or issue is "too big" for us to "control," although the rhetoric of the educational establishment suggests teachers are quite capable of curing the economy or at least staving off economic disaster, ensuring our democracy, and closing the racial achievement gap. On another level, the comment suggests a certain anxiety. We shouldn't talk about those things we can't control; doing so would be a waste of time. But why is talking not "doing something" and how do we decide what is "beyond our control"?

Among the many successes we can attribute to the triumph of right-wing political agendas, neoliberalism, and neoconservatism has been the acceptance by so many people that certain ideals are no longer realizable—they are the silly dreams of the 1960s or naïve beliefs of aging hippies or should be left to the idealistic young. Although we may admire idealism, we often use "idealistic" to mean unworkable. Other ideals, however, are phrased as realistic. These latter are not even considered ideals; they are presented as pragmatic decisions or important principles or tough-minded policies. Thus, for example, the Bush administration as well as the media presented the crusade to democratize the world as principled and realistic, but depicted efforts to ensure that everyone in

the U.S. has the right to vote and that each vote counts equally as pie in the sky dreams. The effort to dismantle the welfare state—to end welfare as we know it—was depicted as pragmatic; a movement to end poverty is unthinkable. The privatization of all public services makes practical sense; open borders make no sense whatsoever. I am sure you can come up with your own list. For educators two examples of this particular phenomenon are apposite: racial integration and equalizing resources. Whereas the Bush administration, politicians, business people, and educational leaders could tout as perfectly sensible, principled, and realizable the most radical transformation of public schools since their creation, the goal of integration has been excised from public conversation. Such a goal "is beyond our control" except insofar as it is recoded as standards of diversity or cultural sensitivity.

Whereas the same cheerleaders for the transformation in education could argue for the pragmatism and possibility of preparing all students to succeed in the global market, those same groups deemed NCATE's failure to take a stand on the ideal of social justice understandable in the light of practicality. And when was the last time the educational establishment took a serious stand against growing economic injustice, other than to say teachers were the most important component in getting kids jobs and keeping them out of prison?

I want to argue that the loss of these ideals—ideals of racial integration and an equitable economic system—has affected teachers, provoking in them a melancholia, which is intensified by other losses. But to understand how the loss of these ideals may have led to such melancholia and contributed to teachers embracing the educational reforms I have been discussing, we must take a slight detour, a detour through the work of Louis Althusser and Judith Butler.

In "Ideology and Ideological State Apparatuses," Althusser (1994/1970) sketches the power of ideology to constitute subjects. He theorizes how the individual becomes a subject through interpellation, that is through being hailed. The example he gives is of an individual being hailed by the police.

> I shall . . . suggest that ideology "acts" or "functions" in such a way that it "recruits" subjects among the individuals . . . or "transforms" the individuals into subjects . . . by that very precise operation . . . called interpellation or hailing, and which can be imagined along the lines of the most commonplace everyday police (or other) hailing: "Hey, you there!"
>
> Assuming that the theoretical scene I have imagined takes place in the street, the hailed individual will turn around. By this mere one-hundred-and-eighty degree physical conversion, he becomes a subject. Why? Because he has recognized that the hail was "really"

> addressed to him, and that "it was really him who was hailed" (and not someone else).
>
> (130–131)

For Judith Butler, that hailing by the law or as constitutive of interpellation is complicated, because it's not clear to her why the individual turns to it. She argues in *The Psychic Life of Power* that in part the individual turns out of guilt. As she writes, "To become a subject is to be continuously in the process of acquitting oneself of the accusation of guilt" (1997, 118). But what makes for the guilt? And how does such guilt lead to the turn to the law?

According to Freud, in "Mourning and Melancholia" (1995/1917), individuals fall into melancholy when they have unsuccessfully mourned the loss of a person or ideal. One of the reasons Freud offers for the lack of successful mourning is that an ambivalent attitude structured around love and hate was initially held toward the person or ideal. That hate or that ambivalence, which may result from previous hurts or angers or may result from the actual loss of the loved one, is denied or repressed; it is too painful to allow into consciousness. The individual feels too guilty for harboring such feelings. Instead they play out in the unconscious. "The loss of a love-object is an excellent opportunity for the ambivalence in love-relationships to make itself effective" (250–251). Thus, when the loss occurs, the individual internalizes the relationship, and as a result a punitive dynamic is set up, in which the conscience, or super-ego, berates the ego with the same energy that the individual originally unconsciously or partially consciously manifested toward the object. Freud writes, "We perceive that the self-reproaches are reproaches against a loved object which have been shifted away from it on to the patient's own ego" (248). He continues:

> If the love for the object—a love which cannot be given up though the object itself is given up—takes refuge in narcissistic identification, then the hate comes into operation on this substitutive object, abusing it, debasing it, making it suffer and deriving sadistic satisfaction from its suffering.
>
> (251)

If, rather than a person, the loss is of an ideal, then the original ambivalence and guilt about that ambivalence one has felt are turned into aggressive attacks on oneself or, as Freud put it, on one's ego. Freud (1995/1914) develops this idea in "On Narcissism," where he argues that the aggression toward the ideal and its inability to be fulfilled is turned inward, and this self-aggression becomes the primary structure of conscience.

For Butler and Althusser, this formation of conscience constitutes and is concurrent with the turn to the hailing of the law and interpellates the individual. The guilt that turns the individual toward the law's hailing is in part a result of the loss of an ideal about which the individual was already ambivalent. The law offers a reprieve from the resulting guilt and at the same moment provides a defense against the ambivalent feelings.

To give a concrete example, according to Althusser, after he strangled his wife, he ran out into the street and called for the police. Here is an example in literal terms of the individual calling the law to punish him or perhaps to offer a reprieve for his action. My point is that it is the loss of an ideal, and the unexamined ambivalence about that ideal itself that helps create a sense of guilt, which then leads to a turn to the law and allows for the interpellation of the subject. But at the very moment the subject is interpellated, a conscience is formed, an interiority created. As Butler (1997) writes,

> [T]he loss of ideals is compensated by the interiorized ideality of conscience. An . . . ideal may be lost by being rendered unspeakable, that is lost through prohibition or foreclosure: unspeakable, impossible to declare, but emerging in the indirection of complaint and the heightened judgments of conscience.
>
> (196)

That subjectivity is shot through with a sense of dependence on the law—on that very hailing that brings it into existence. Now what does this have to do with teachers and with audit culture?

There are many losses that educators in general have experienced over the years, for example resources, status, and even power. I want to speculate that the loss of two particular ideals once held dear by progressives, liberal and radical educators, about which we are prohibited from talking, ideals impossible to declare any more, ideals "rendered unspeakable," ideals that were never fulfilled, and about which we had ambivalent feelings to begin with—that the loss of these ideals has thrown many progressive educators into a melancholy suffused with feelings of guilt that then make those same educators susceptible to audit systems. Those ideals are the ideals of racial integration and economic equality. Let us first look at racial integration.

All the recent studies on school integration clearly show that our schools are more segregated today than at any time since *Brown* vs. *Board of Education* (Orfield and Eaton, 1997; Rothstein, 2004; Kozol, 2005), and yet it is almost impossible to hear a discussion of this fact. There is a deafening silence when it comes to a national discussion about integration or what a segregated school system signifies. We hear a good deal of talk

about diversity, and Standard 4 of NCATE's review process is actually called Diversity, but one would assume from reading the standard that we live in an integrated society, where diversity is really only about being sensitive to the Other's cultural differences. We also hear much about closing the achievement gap but not about closing the economic gap or closing the racial divide. These latter have been recoded in terms of differences in exam scores. Audit culture, like the law, offers a reprieve from the feeling of guilt caused by the loss of the ideal of integration, and allows us to talk about diversity while remaining silent about the loss of an ideal.

It is important to remember that according to Freud, the loss of an ideal about which we initially felt ambivalent but to which we felt passionately attached can result in a splitting and an internalization consisting of the formation of an often punitive conscience on one hand and the ideal or object-identified ego on the other. That punitive conscience holds one side of the ambivalence, the unacknowledged anger, frustration, and resentment originally directed at the lost ideal or person. Both white and black progressive educators were initially ambivalent about integration. White educators harbored fears, resentments and anger about mixing with the Other and potentially losing status as they mixed with blacks, and black educators felt ambivalent because they resented losing jobs and control of their children's education. These reactions are well documented (Haney, 1978; Pinar et al., 1995; Zacharia, 2004). I am speculating that the ambivalence toward integration and the passionate attachment to it were internalized with the loss of the ideal of integration. Thus, a melancholia suffused with enormous guilt results from this loss and resonates with the unremitting voices that accuse one of doing the wrong thing, of hurting children, of causing the sorry state in which we find ourselves.

That guilt is intolerable. What the discourses and practices of standards and accountability offer is the opportunity to find reprieve. So for example, the tenet that teachers are most responsible for student success, and that by holding schools of education and teachers accountable we will be able to close the achievement gap between whites and blacks and Latinos, offers those who feel guilty an opportunity to *talk* about diversity and through the implementation of standards and high stakes testing to feel they are really doing something about racism. On this level, standards of diversity are reminiscent of the beggar in Jean Genet's (1965) *Miracle of the Rose*, who places an artificial wound over the actual suppurating hole in his leg so passers by will throw him a coin without being repelled. The standard of diversity in NCATE or the attention to diversity in so many "best practices" masks the real problems of racism and economic inequities in U.S. society.

But on a deeper level audit culture offers the interpellated subject a reprieve and the opportunity for atonement by following clearly specified rules. For example, NCATE offers a reprieve by ensuring that, in this

case, racial integration will not be discussed. Furthermore, the sadism inherent in so much of audit culture, and in teacher bashing, resonates with the sadistic and masochistic pleasure Freud pointed out we derive from our own psychic response to the lost ideal.

In much the same way as they do about segregation, NCATE and the proliferating policies and practices associated with standards and accountability keep silent about economic injustice while inducing teachers to believe that in following the standards and adopting audit practices they are helping poor and working-class students get jobs. Remember Thomas Friedman's admonition—if our kids are going to stay competitive they must be held to standards, we need accountability. Recall all those policy statements, white papers, commission reports insisting that the way to keep our economy humming and citizens employed was by holding teachers accountable. Nary a word appears about the horrifying disparities between the wealthy and the poor, skyrocketing CEO salaries, the stagnation of salaries, or the high unemployment rates, particularly among black males, other, of course, than reminders about how teachers are responsible for keeping the poor and blacks out of prison and out of poverty. Thus class warfare against the poor is recoded as the need to prepare students for the twenty-first-century global market.

One can get a sense of just how lost the ideal of economic equality is when one takes seriously the call that all children be given equal educational opportunities. Today this means a qualified teacher in every classroom, i.e. a teacher who can raise test scores, but what could such a call really mean? If all students were meant to receive an equal education, if equality of educational opportunity were really the aspiration, then why should the education afforded the sons and daughters of the wealthy not be the benchmark of a good education? That would be utopian thinking and, although perhaps unrealizable, would allow us to see the hollowness of the reform efforts under way and the empty rhetoric of those who talk of equal opportunity for all our children. To offer students in public elementary and secondary schools small classes, extensive tutoring, elaborate enrichment programs, physical education opportunities, arts programs, personal counseling, college advisement, travel abroad programs, and a panoply of intellectual opportunities ranging from AP courses to small tutorials, in other words to offer what is available in even the poorer prep schools, would do more to improve education than New York City's Ramp Up to Literacy or NCATE's attempts to ensure qualified teachers can possibly do.

Such equalization of educational opportunity doesn't guarantee equal results—socio-economic status and its effects have more to do with that—but ensuring all students have the resources provided by Miss Porter's or Exeter or Lawrenceville, or even Sidwell Friends, would go a long way to equalizing outcomes. Of course, such a demand, such a utopian vision

is not even considered or made today. The closest we get to such a vision are the small school movements across the country that often tax teachers with additional burdens, don't provide a substantive infrastructure, and certainly come nowhere near providing the resources available in prep schools. Today such utopian thinking is absent and thus there is no way to know what we want; we only know what we have. It is not that I labor under the illusion that such a demand would or could be met, but in making it, we can return to the concrete world of schools and see what is missing. In *The Seeds of Time*, Fredric Jameson writes that the epistemological value of utopia

> lies in the walls it allows us to feel around our minds, the invisible limits it gives us to detect by sheerest induction, the miring of our imaginations in the mode of production itself, the mud of the present age in which the winged Utopian shoes stick, imagining that to be a force of gravity itself.
>
> (1994, 75)

Such thinking allows us to bump up against the limits of our imagination and illuminate what is really lost when we collapse our aspiration for equality of resources into providing qualified teachers.

But such thinking is no longer encouraged today. Our difficulties in imagining a world beyond standards and accountability, in engaging in utopian thinking, are the very indices and features of our standardized reality. They are also a result of the fear and guilt such utopian thinking provokes. Had there been no initial ambivalence about a more equalized economic system, the loss of such an ideal in our conversation about education and the resulting guilt-suffused melancholia would not have occurred. The very fact that so many in the working class and so many teachers for several reasons, some of which have been discussed in the previous chapter, had fears of falling backwards (Ehrenreich, 1990) and thus worried about losing what little economic advantage they had over the poor, provoked a certain ambivalence. That ambivalence fueled a dynamic that led us to turn to the very discourses and practices that exclude such utopian thinking.

One last point. Freud consistently theorized that the conscience he described in "Mourning and Melancholia" was voracious. The more one tried to satisfy it, the more demands it made. For the interpellated subject of audit culture, for the progressive or liberal or radical educator who embraces standards and accountability, the enjoyment derived from complying with the demands of audit, demands that externalize the demands of the conscience or super-ego, drives auditees to greater and greater efforts to comply.

Fears, shame, fantasies, and unacknowledged loss have certainly rendered educators susceptible to the discourses and practices of accountability and standards. Promising certainty, control, professional status, and a heroic identity of self-sacrificing service, these discourses and practices have, however, exacerbated the very fears and shame they were meant to alleviate and have intensified fantasies of worthlessness as they foment fantasies that displace and substitute for the lost ideals of racial integration and economic equality. It is worth taking another look at the auditee whom Michael Power (2003) describes. She is "depressed," "exhausted," and "nervous." Fearful of the future and worried that she is not trusted, she feels a sense of loss and begins to feel worthless. All that is missing from this sketch is her fantasy of how powerful she could be. She "colludes in amplifying audit mandates" (199–200).

Whereas such feelings and fantasies have contributed to educators' embracing the discourses and practices of audit and in turn have been sustained by that embrace, they would never alone have led teachers to acquiesce to the logics and values of the marketplace. Teachers at all levels are resistant to the intrusions of corporations into the classroom and public education. Something else was needed to create a situation in which, as David Imig and Diane Ravitch stated in the quotes at the opening of this chapter, teacher education was being commercialized and public education was being dismantled. Some switch point had to be in place such that educators could adopt the logics, language, and practices of the business world without feeling they were selling out. There needed to be a language familiar to educators, a language that could recode or translate the linguistic coin of the market, such that corporate values, logics, practices and discourses would appear in a different lexicon, one that carried a certain status, and one that had had a long relationship with the field of education. The language that provided the translation was the language of psychology, particularly the language of the learning sciences, and it is to the learning sciences that I now turn.

Chapter 7

Intellectual Capital

How the Learning Sciences Led Education Astray

> [T]he cognitive revolution . . . lies at the center of the post-industrial society . . . The new capital is know-how, forecast, [and] intelligence.
>
> —Jerome Bruner (quoted in Noble, 1991, 192)

> Public education thus becomes . . . the site for the . . . design and manufacture of "intellectual capital" . . . needed by corporate enterprise.
>
> —Douglas Noble (1989, 34)

> I say moreover that you make a great, a very great mistake, if you think that psychology, being the science of the mind's laws, is something from which you can deduce definite programmes and schemes and methods of instruction for immediate classroom use . . . To know psychology, therefore, is absolutely no guarantee that we shall be good teachers.
>
> —William James (1958, 23–24)

> [T]here is very little of importance for educators that can be gained from the study of such things as learning theory, child development and personality.
>
> —Robin Barrow (quoted in Pinar, 2004, 24)

In an editorial appearing in the *New York Times* on May 2, 2008, the conservative columnist David Brooks opined that the central force driving economic change today is not globalization, but rather "the skills revolution." We in the United States are living at the beginning of what he termed "the cognitive age," an age that will require people to "become better at absorbing, processing and combining information" (A24), and to develop the ability to understand information and to "exploit it" (A24). Brooks claimed that in the cognitive age the emphasis is on "psychology, culture, and pedagogy—the specific processes that foster learning." Aside from the fact that Brooks's column reprises the call by politicians, policy makers, business leaders, and educators to provide the nation's youth with twenty-first-century skills for the global marketplace, what is interesting about this short piece is its translation of politics, economics, and

education into cognitive skills and learning. With a brief nod to culture, which can easily be collapsed into managing diversity, Brooks brings into view the relationship between psychology, particularly cognitive psychology, and learning and teaching. It appears that the learning sciences, with their focus on learning and their home in psychology, have truly arrived, at least in the ruminations of a conservative, corporate-identified columnist, but then, perhaps, it is not so surprising.

Of the various branches of knowledge that have taken as their object of study the individual human mind, none has exerted greater influence on education than psychology. As Ellen Lagemann concludes in *An Elusive Science: The Troubling History of Education Research*, it was not Dewey's work that would shape how education in the United States would come to be understood, but the work of Thorndike and his descendents (Lagemann, 2000, 22). David K. Cohen and Carol A. Barnes echo that view when they write, "Dewey's ideas never became a regular part of the research and graduate education mainstream . . . [These] were instead largely defined by Thorndike's views, his agenda for inquiry, and his graduate students" (1999, 20). Although I don't disagree with these conclusions, the current dominance of the learning sciences and their allegiance to cognitive psychology suggest that Wilhelm Wundt, who subjected mental phenomena to "precise analysis" (Bransford, Brown, and Cocking, 2000, 6), might be a more influential *paterfamilias* to the learning sciences. In any case psychology certainly triumphed over philosophy and, more generally, the humanities as the dominant influence on education.

The evidence of psychology's appropriation of the field of education is hard to refute. Several scholars (Cochran-Smith and Fries, 2005, 77; Sproul quoted in Lagemann, 2000, 209; Heath quoted in Lagemann and Shulman, 1999, 215) have pointed out that the American Educational Research Association has long been dominated by psychologists. Since 1980 at least half of the presidents of AERA have come from the field of psychology or measurement. Teacher preparation programs now require courses on human development, learning theory, or educational psychology, and some states, for example New York, have mandated such courses for teacher certification. Influential texts, such as Linda Darling-Hammond and John Bransford's *Preparing Teachers for a Changing World: What Teachers Should Learn and Be Able to Do* (2005), assume that the work of the learning sciences is central in the preparation of teachers. The movement to raise the status of teachers and place them on a par with doctors and lawyers, a movement Cochran-Smith labels the "professionalization agenda," has been profoundly influenced by "the emerging 'learning sciences' . . . and other lines of research on human development" (Cochran-Smith and Fries, 2005, 44). Demands by the Bush administration and the National Research Council for "scientifically based research" and its complement "evidence based education" (Cochran-Smith and

Fries, 2005, 46) have led educators to look to the learning sciences to provide the content of and the "gold standard" for research. Finally, the fact that "learning," the theory of which has effectively been hegemonized by psychology, is now taken as *the* purpose of curriculum and teaching, and that currently the overall goal of education "is to teach in ways that optimize learning for all students" (Bransford, Darling-Hammond, and LePage, 2005, 6) attests to the influence of psychology and more specifically the learning sciences. In many respects teaching and curriculum have collapsed into applied psychology.

I have no intention of repudiating wholesale the contributions psychology and the learning sciences may make to our understanding of teaching, curriculum, and schooling. I do want to argue that the language and practices of the learning sciences and the assumptions they make about learning and education have led educators to uncritically embrace discourses and practices imported from the business world, and in some cases the military, discourses and practices that in turn have paved the way for teachers' own loss of autonomy and paradoxically threatened their claim to intellectual stature. As I shall argue, the learning sciences provided the switch points or transfer points that allowed the discourses and practices associated with the business world to enter education. In order to understand how the learning sciences came to be complicit in the corporatization of education, we need to consider briefly the history of the learning sciences, some of their key concepts, and how they view learning.

The Learning Sciences: A Brief History

> Cognitive science may be read both metaphorically and literally as a theory of technological worker-soldiers.
>
> —Paul Edward quoted in Noble (1989, 21)

The learning sciences have emerged in the last twenty years as an interdisciplinary endeavor that draws from cognitive science, neuroscience, computer science, human development, educational psychology, linguistics, sociology, and anthropology (Bransford, Brown, and Cocking, 2000, 8). The *Journal of the Learning Sciences* (*JLS*) was established in 1991, and a handbook of the learning sciences was published in 2006. Subsuming cognitive science, which had by the 1970s come to replace behavioral approaches to the study of teaching, the learning sciences have continued to focus on "understanding the ways in which people acquire, process, use, and represent knowledge" (Lagemann, 2000, 212).

One way to understand the learning sciences is through Hegel's notion of *Aufhebung*, sometimes referred to as "sublation." The word refers to

the process whereby that which the whole surpasses is also preserved within it. It is an overcoming that preserves what is overcome. Nothing is lost. As the learning sciences have surpassed cognitive science, which had itself assimilated information technology and cybernetics and had surpassed cognitive psychology and behaviorism, many of the terms and assumptions of these have been preserved, as have traces of affiliations, dating from after WWII, that cognitive psychology and behaviorism had with the military.

When we consider the learning sciences then, it is important to understand how their work has been informed by and carries assumptions, theories, terms, and traces from sources that go unnamed. It is also important to understand that the site from which the learning sciences emerged was a nexus of psychology, information technologies, computer sciences, and the military. The reticulation of these domains, accompanied by massive funding, eventuated in research findings, and specific discursive and non-discursive practices that would make their way into education, come to dominate approaches to teaching and curriculum, and eventually serve as conduits for the discourses and practices of the marketplace.

The Military, Psychology, and Computer Science Nexus

Although psychology has had a long history of involvement with the military, dating back to the Army Alpha and Beta intelligence testing used during WWI, and the consequences of those initial tests are obvious in today's testing mania, little has been written about the post-WWII relationships among the military, information technologies, behavioral and cognitive psychology, and the learning sciences. Even less has been written about the influence of that relationship on education. One scholar who has studied the topic is Douglas Noble (1989, 1991). Noble has extensively researched the entanglements of psychology with the military and has traced "the interwoven histories of postwar military training research and postwar experimental psychological research" out of which "emerged a new cognitivist paradigm for psychology" (1991, 26).

In *The Classroom Arsenal: Military Research, Information Technology, and Public Education*, Noble (1991) argued that after WWII the U.S. military needed to update its training methods to achieve maximum efficiency in minimum time and to train military personnel to adapt to accelerating advances in technology (35). To achieve these ends, the military turned to psychologists, particularly to those in the American Psychological Association's Division 19, the Society for Military Psychology, which had been established in 1945. Those psychologists were at the time predominantly behaviorists, which is not surprising, given that in the mid-twentieth century "it would have cost a career to publish on mind, consciousness, volition or even energy" (Kimble quoted in Hunt,

1994, 263). Glover and Ronning (1987) note the dominance after the war of behavioral psychology in the "area of educational psychology . . . concerned with industrial and military training" (8).

Military training required the "rigorous specificity of training with task assignment" (Hitchens quoted in Noble, 1991, 49). It also required "uniformity, standardization and quality control in order to ensure the mastery of precise skills for appropriate performance within each assigned task" (Noble, 1991, 49). Such requirements necessitated "careful analysis of job tasks and subtasks, rigorous standards of curriculum construction, exhaustive delineation of instructional objectives, and precise criteria of skill mastery" (49). Psychologists, schooled in behaviorism, easily accommodated their focus on visible behavior and on stimulus–response to military exigencies. The simplicity, predictability, and control promised by behaviorism appealed to a military oriented to a strict regime of rewards and punishments and desirous of training personnel in new technology.

Out of the partnership between military personnel and psychologists emerged more detailed and developed approaches to training. According to Noble, "military training research [was] responsible for the fullest development of the use of behavioral objectives, task analysis [and] criterion-referenced measurement" (49). It has also been the prototype for models of "mastery learning," developed "through wartime and postwar military training efforts of such researchers as Robert Miller, Robert Gagné, Robert Mager, and John B. Carroll" (49).

The names of Gagné, Mager, and we can add Robert Glaser, who was also intimately involved in military training, are familiar to educators. They were responsible for many of the influential educational texts that appeared in the 1950s, 1960s, and 1970s on the conditions of learning, instructional technology, instructional design, instructional objectives, outcomes-based education, goal analysis, and the nature of expertise. Their work would eventually be central to the research agendas of psychologists such as Lauren Resnick and Ann L. Brown, and learning scientists, such as John Bransford, all of whom have made significant contributions to the field of teacher education.

Important to understand is that the work of Mager, Gagné, and Glaser that spread into education did not originate as a response to the problems of public school educators or public education. Rather it developed in relation to military needs for a specific kind of military training, involving, for example, speedier ways to assemble a gun or more generally how best to integrate humans with machines, such that technology could be better used. The work also evolved as it came into relationship with information processing, artificial intelligence (AI), and cybernetics. Initially, however, the work's behaviorist origins were more apparent.

Because the work focused on man–machine systems and the accomplishment of discrete tasks in a specified amount of time, behaviorism's

dismissal of the unpredictability of human subjectivity, human relations, and individual personality, and its optimism that behavior could be "conditioned," lent itself to the command-and-control emphasis of the military. Because training served the purposes of adapting humans to endless technological and scientific advances needed by the military and produced by what a half-century ago Eisenhower referred to as the military–industrial complex, psychological approaches to learning and teaching placed "a great emphasis . . . on rigorous determination of training objectives in conjunction with exhaustive task analysis and task taxonomies" (Glaser, 1962, quoted in Noble, 1991, 49). This emphasis, as well as the "characteristics of efficiency, specificity and uniformity, reflecting the military need for total control of the training process" (Noble, 1991, 50), shaped and was implicit in the training programs psychologists were developing, programs that would migrate to education.

The military's influence on the work of Mager, Gagné, and Glaser is apparent in their writing about education. In his 1997 edition of *Preparing Instructional Objectives: A Critical Tool in the Development of Effective Instruction*, Mager asserted that successful instruction requires the instructor to precisely define the objectives to be accomplished. "A useful objective includes . . . what the learner is expected to be able to do . . . the conditions under which the performance is expected to occur . . . and the level of competence that must be reached" (52). In order to measure whether the objective is met, the instructor needs to phrase it in terms of demonstrable behaviors. A change in behavior suggests successful instruction. Developing a curriculum consists of listing tasks, analyzing tasks, deriving skills from the tasks, drafting objectives, constructing a hierarchy of skills, and deriving a curriculum from these procedures (39–41). The breakdown into discrete tasks necessary for training military personnel to master particular technological skills, and achieve fixed demonstrable outcomes, ignores the complicating effect of emotions, contextual contingencies, and the always potential contestation of knowledge that we associate with the curricula of high schools and higher education. And yet Mager's work would profoundly influence views of education and teaching, as would Robert Gagné's.

Gagné's work does not differ dramatically from Mager's, and just as one sees the residues of Mager's work in the current obsession with performance outcomes, one can find in classrooms around the country transubstantiations of Gagné's work. Following are Gagné's (1965) "nine steps of instruction": (1) gain attention—here are the "Do Nows" that pervade New York City's high school lesson plans; (2) inform learners of the objectives, or, in other words, inform students what you are going to do—thus the "Aim" that covers blackboards in New York City high school classrooms; (3) stimulate recall of prior knowledge—the first part of the KWL, so popular in schools; (4) present the material through

sequencing and chunking material—the scope and sequence approach to curriculum; (5) provide guidance for learning by informing students of the best approach to the material—this will eventually lead to metacognitive strategies; (6) elicit performance or demonstrable behaviors through "hands-on" activities; (7) provide feedback through tests, quizzes, or verbal comments; (8) assess performance through tests to determine if the lesson has been learned; and finally (9) enhance retention and transfer by informing the learner about similar problem situations, and providing additional practice.

It is important to keep in mind that Robert Gagné was involved for fifty years in military training and research and development and "was instrumental in defining a framework for effective military training" (Spector, 2000, 213). In a brief autobiographical statement (1987), Gagné claimed that one of the four greatest influences on his work in psychology was his "wartime experience . . . in the assessment and training of human capabilities" (397). He wrote:

> We were asked to participate in the weapon systems planning of the Air Force by forecasting requirements for selection and training for personnel. To accomplish these aims, we had to devise novel methods of analyzing man–machine systems, of describing projected jobs, and of deriving requirements for selection and training of personnel . . . As contributions to the field of educational psychology, the techniques of task description, task analysis, and the specification of instruction have been of considerable value, [particularly] . . . [t]he linkage they make with instructional objectives.
>
> (398)

Gagné's nine steps, with their focus on aims, sequencing, and assessment, were, for example, applied to the problem of training military security personnel in handcuffing procedures and other technical problems (Spector, 2000, 216). According to Spector, "Gagné said trainers need to guide learners when the learning goals were specific and well structured, as is typically the case in military training" (219) and that "open-ended learning environments follow principles of irrationality" (219).

Both Gagné's work and Mager's instructional objectives, as well as the work of several other prominent psychologists who exerted enormous influence on education, not only originated in work with the military but also, in their initial incarnations, circulated in various training programs in corporate management (Reiser, 2001, 61–62) and meshed nicely with the auditing practices that would increasingly be implemented in the worlds of business, finance, and accounting and then in education.

That the work evolved in the military is not in itself the problem. It would be too easy to condemn the work simply because of its military

associations. Rather, the problem lies in the fact that in response to military needs, the work construed teaching solely in terms of training, and curriculum solely in terms of specific tasks and outcomes, the achievement of which could be easily measured. The initial influence of these post-WWII behaviorists on education emanated from and was organized to meet military exigencies that were qualitatively different than those of public education or those emerging in the public school classroom. To take another example, in response to demands for sorting and selecting military personnel for specific jobs (Dick, 1987, 184), Robert Glaser's work led to his development of criterion-referenced testing (Reiser, 2001, 60). But it was not only the fact that educators came to adopt practices developed to meet particular military needs that posed a problem.

The metaphors and analogies used to articulate these practices also carried particular assumptions and approaches associated with warfare, weapons systems, and the military. At the famed 1959 Woods Hole conference sponsored by the National Academy of Sciences, the Air Force, the Rand Corporation, the U.S. Office of Education, the American Association for the Advancement of Science, and the Carnegie Corporation (Pinar et al., 1995), psychologists, mathematicians, and research scientists met to determine how best to teach science to young students. A memo, written by Jerome Bruner, summarized one of the many panels' reports. Bruner wrote,

> [W]e introduced this subject for discussion today by suggesting the analogy to a weapon system—proposing that the teacher, the book, the laboratory, the teaching machine, the film, and the organization of the craft might serve together to form a balanced teaching system.
> (quoted in Rudolph, 2002, 10)

According to John Rudolph, in "From World War to Woods Hole: The Impact of Wartime Research Models on Curriculum Reform," "The modern cold war weapon system was, in the minds of the reformers, the epitome of rational instrumentation—a model to be emulated in seeking solutions to educational problems" (10).

Although psychologists such as Gagné, Glaser, and Mager, who were responsible for importing training methods developed in the military into education, initially considered themselves behaviorists, many were moving in the 1950s and 1960s away from the behavioral paradigm of Skinner to embrace cognitive psychology. In part that turn was a direct result of their military work, which brought together military personnel, psychologists, and those researchers working in computer science, AI, cybernetics, management systems theory, and information technologies.

Noble traces the emergence of cognitive psychology to the availability after the war of the languages of information processing and management

decision making and the military needs resulting from the boom in newer technologies. In particular he locates it in the collaboration of Herbert A. Simon—the Nobel Prize-winning economist famous for saying "there are now in the world machines that think, that learn and that create, [and] the range of problems they can handle will be coextensive with the range to which the human mind has been applied" (Simon, 1966, quoted in Crevier, 1993, 44)—and Allen Newell—who sought to develop a unified theory of cognition. Their efforts, funded primarily by the Air Force, led to the creation of several computer languages and programs and, according to Noble, provided "the transparent 'processes' of what Ulric Neisser eventually labeled 'cognitive psychology'" (Noble, 1989, 42). "[T]he redefinition of human cognitive functioning in terms of computer processing . . . eventually became the theoretical basis for the entire field of cognitive psychology" (Noble, 1991, 80). Morton Hunt supports this claim in *The Story of Psychology*: "The information-processing (IP) or 'computational' model of thinking has been the guiding metaphor of cognitive psychology ever since the 1960s" (1994, 516).

The nexus of psychologists, military personnel, information-processors, cyberneticists, and researchers in AI not only eventuated in the rise of cognitive psychology but also produced approaches to learning that relied heavily on the mathematization of behaviors. In 1957 the Advisory Panel on Psychology and the Social Sciences of the Office of the Director of Defense Research and Engineering, on which sat Robert Gagné, a "leader in military automated training at the Air Force Personnel and Training Research Center," focused on "problems in the human use of information processing systems" (Noble, 1991, 117). They recommended that defense management needed a technology of human behavior "based on the advances in psychology and the social sciences" (117). C. W. Bray, a leader in human engineering, defined technology of human behavior as including "new concepts about people, expressed mathematically . . . and information about people expressed in formulas, tables and graphs" (117). According to Hunt, cognitive psychologists envisioned the mind "as an information processing program" that first transformed perceptions and "other incoming data into mental representations," and then "step by step" evaluated them, decided which among them would be most helpful in reaching the goal, added those to memory and then retrieved them when they were needed again (1994, 516). The instructional objectives promoted by Mager and the sequencing and aims promoted by Gagné were translated in collaboration with information technologies from a behavioral paradigm to a cognitive one. The emphasis began to shift from a strict focus on behavior to internalized representations of that behavior, but the focus on discrete tasks, expediency, and end results remained, since the military's need for command and control, predictability and efficiency only intensified with its procurement of innovative

technologies. In addition, the easy quantification of behavioral outcomes articulated nicely with the metrics of computer processing and the statistical norms and values already incorporated in psychological research.

Eventually the linkage among cognitive psychology, AI, information processing, cybernetics, and military research merged into cognitive science, which sublated cognitive psychology, behaviorism, and its military origins. According to Noble "[t]he term 'cognitive science' came into use in the mid-1970's when AI researchers" received an infusion of funding from the Sloan Foundation (1991, 43), which as Lagemann (2000, 218) and Noble point out had begun providing millions of dollars to the new sciences of cognition. The full embrace of AI by the learning sciences accelerated research into the use of computers as models for thinking. As Lauren Resnick, a well known cognitive psychologist and past president of AERA, stated in an interview:

> It has proved helpful to build computer models that "learn" more or less the same material and in much the same way that a child does . . . They help us devise strongly specified theories of what children might be thinking.
>
> (Brandt, 1989, 14)

The synergy between computer scientists, information processors, and cognitive psychologists not only generated new metaphors to describe thinking and behavior but also resulted in conceptualizing knowledge as information.

The reduction of knowledge to information may have fitted with the new information sciences and with metaphors that turned thinking into information processing, but it also hid the labor and desire involved in the creation of knowledge, its historical context, and its complexity, contingency, and ambiguity. The "messier" or less predictable and controllable aspects of education gave way to the certainty and expediency promised by practices that guaranteed or measured the accumulation, retention, retrieval, and transfer of information. Such practices ranged from scripted teaching to high stakes testing to the application of rubrics, check sheets, and the aggregation of numerical data, all of which would eventually be implemented in the name of ensuring that all students learn.

Artificial intelligence, computer science, and management decisions also combined with cognitive psychology to produce a new concept, "metacognition," which would become central to the learning sciences. According to Noble, "Developmental psychologist John Flavell (1977) originated the discussion of 'metacognitive strategies' in the mid-1970's" (1991, 183), although ten years later he "assert[ed] that no one knows 'what metacognition is, how it operates, [or] how it develops' " (quoted

in Noble, 1991, 183). In spite of Flavell's reservations, metacognition achieved prominence in the science of learning. As it did so, it increasingly forced the withdrawal of a focus on content and replaced it with attention to process or thinking skills or strategies. One learned how to think critically, how to make decisions, and how to solve problems. Problem solving became the goal as opposed to a means to greater understanding. The problems solved, the content "critically thought about," and the matters to be decided were of much less import than the metacognitive skills that could be trained. These metacognitive skills, which psychologists came to call "executive functions" or "executive routines," just as they were labeled in computer programs (Noble, 1991, 183), were transported by cognitive psychologists into education as a potential knowledge base for the profession. As Robert Glaser put it, "By focusing on the processes that lead to the acquisition of knowledge and cognitive shills and by applying this knowledge to prototypical instructional situations, . . . researchers are developing a knowledge base on which highly effective instructional strategies can be firmly grounded" (quoted in Noble, 1991, 175). Or, as John Bransford would state, "A 'metacognitive' approach to instruction can help students learn to take control of their own learning by defining learning goals and monitoring their progress in achieving them" (Bransford, Brown, and Cocking, 2000, 18).

The promotion and normalization of such self-monitoring parallels the self-regulatory practices and surveillance from afar that help make up audit culture. They also preserve a focus on demonstrated behaviors, since they render knowledge and curriculum in terms of observable behaviors—skills, strategies, and techniques.

Noble's history of the rise of cognitive science and the intimate relationships between the military, computer scientists, and psychologists is important in helping us understand the roots of our current situation. Psychologists generated "an enormous body of psychological literature on learning and training" (Neumann, 1979, 87) to help the military meet its needs, particularly those for efficient and expeditious training. The conclusions they reached, as well as the language in which findings about learning and training were framed, would quickly make their way into education through the influence of psychologists involved in both the military and education.

It is clear that those psychologists who had one foot in the military and one in education contributed to the development of the learning sciences and to the importation into education of the language of outcomes, performance objectives, and information processing (Dick, 1987, 184). They served as switch points or transfer stations between several domains: psychology, the military, information processing, systems management, and of course education. Their work was instrumental in recasting teaching in terms of training and management, learning in terms of accomplishing

stated objectives, outcomes and tasks, and mastering decontextualized skills, curriculum in terms of sequencing and metacognitive skills, and knowledge in terms of information. Carried in their work were traces from its genesis in addressing military problems and needs: the endless quest for certainty (Creveld, 1985), the desire for command and control, and the focus on training personnel to adapt to and adopt the flood of technological innovations provided by the military–industrial complex. Lingering in their work were also echoes of behaviorism and information processing, cybernetics and AI.

These traces appear today in the transformation of education. We can detect them in the emphasis the learning sciences place on the need for STEM education and to produce scientists and engineers. This emphasis is amplified by corporations, desirous of profits generated by new technologies. The stress "on problem-solving, decision-making and 'higher order' thinking" (Noble, 1991, 171) slides into "corporate demands for employees who can 'think' and 'problem-solve,' 'reason,' and 'learn'" (192). We can register the traces and echoes in the way students emerge as information processing machines and in "the computer models of human cognition and learning [applied] in the service of improving children's 'thinking skills' and 'learning strategies'" (28). Perhaps we can sense it most clearly in a statement appearing in an article written by Ann L. Brown, a psychologist and former president of AERA, and Joseph C. Campione. In "Psychological Theory and the Design of Innovative Learning Environments: On Procedures, Principles, and Systems," they wrote, "people are excellent all-purpose learning machines" (1996, 289).

It is interesting, also, to note that another recent president of AERA, Eva Baker, continues the tradition of working within the nexus of the military and information technologies. According to the National Center for Research on Evaluation, Standards, and Student Testing's (CRESST) winter 2005 newsletter, Professor Baker is "helping to design sophisticated testing of performance assessment in large-scale environments for both military and civilian education" (*CRESST Line*, 2005, 5).

That same issue reports, under the headline "United States Marine Corp Rifle Marksmanship Coaches Toolset," that "CRESST is partnered with the University of Southern California's Behavioral Technology Laboratories to develop instruction and assessment software that will improve military Marksmanship" (3). According to the Assistant Director of Technology, the Coaches Toolset "will allow a Marine Corps trainer to manipulate a virtual marksman on a computer display, assess proper shooting position, and improve performance" (6). Three separate assessment modules are being developed as part of the toolset and "USC is developing a marksmanship data book-training module" (6).

It's a short distance from this "toolset" to the toolkit John Bransford refers to when he writes, "In teaching as in carpentry, the selection of

tools depends on the task at hand and the materials one is working with" (Bransford, Brown, and Cocking, 2000, 22) or when he promotes the Thinker Tools Curriculum for teaching physics "in an interactive computer environment" (21) or to the "tools" President Bush talked about in his address to presidential scholars (see Chapter 4). One hears in these comments circulating within the learning sciences traces of the relationships among the military, information technologies, cognitive psychology, and education. One also detects the stunning ahistoricism and amorality of these discursive and non-discursive practices emerging within the military–psychological nexus. How "tools" and "tool kits" are used, to what purpose, is not the concern of the learning sciences. Whether they are used to forward the agenda of a military in time of war or neoliberal policies in a time of economic inequities, the learning sciences appear not to care. The work they produce not only has been influenced by these agendas and policies but also has supported them.

My intent in briefly tracing the origins of the learning sciences has been to suggest that their approaches to teaching and curriculum and to understanding education have been transported from other areas that demanded specific solutions for problems that were dramatically different than those in public education. Although the drive for control, certainty, prediction, efficiency, and expediency has always existed in the field of education—one need only remember the work of Bobbitt and Charters or the eugenics movement—the particular problems the post-WWII military faced and those raised by information technologies required and produced solutions that, when transported into education, dismissed, ignored, or simply denied the emotional life of classrooms, the contested nature of knowledge, the unpredictability of subjectivity, and the vicissitudes of the unconscious. The learning sciences, in sublating behaviorism, cognitive psychology, and the early research in information processing and AI have implicitly and indirectly carried the work of those fields forward, as well as their emphasis on performance outcomes, training, executive functioning, programmed instruction, instructional design, information processing, and the rationalizing of the curriculum.

The language of the learning sciences dovetails with the policy language and the language of audit that I presented in Chapters 4 and 5. Policies, language, and practices informed by corporate agendas and the language and practices of the marketplace translate seamlessly into the language of learning objectives, information processing, metacognition, and performance outcomes, which were forged in a nexus of military personnel, psychologists, and computer scientists and programmers. In turn what Eisenhower called the military–industrial complex requires the accelerated production of information technologies. As Thomas Friedman pointed out in *The World Is Flat*, the demand for innovative technologies, a demand not confined to the military but amplified by their

needs, particularly in a time of war, fuels the race to compete for wages and contributes to the incessant demands for STEM education, for better education in twenty-first-century skills, for more globally competitive students, and for better teacher education. And finally, closing the circle, these demands are answered by the discursive and non-discursive practices promulgated by the learning sciences.

In order to fully appreciate how central the learning sciences have been in paving the way for corporate intrusion into education, however, we need to consider the view of learning promoted by the learning sciences. It is the arrogation of learning by the learning sciences that has enabled them to exert such influence on education. Before we turn to what the science of learning actually means, however, we need to consider three concepts that are central to the learning sciences: environment, motivation, and behavior. Each of these concepts helps organize the discourse on learning. Each acts as a kind of switch point between the language of audit and the marketplace and the discourse of education. Each transmutes the complicated work of teaching and curriculum and the complex life in classrooms into purportedly manageable components. Those components are presented as constitutive of successful teaching and learning; they can be and increasingly are, however, turned into commodities.

Three Concepts: Environment, Motivation, and Behavior

> Education is a form of human engineering.
>
> —Edward Thorndike (quoted in Pinar et al., 1995, 91)

> A rather insistent demand for an adequate psychology of motivation has always been made by those who are interested in the control of human nature.
>
> —F. A. C. Perrin (quoted in Danziger, 1997, 114)

Following the work of the French historian of biology Georges Canguilhem (1991) and the archeological work of Michel Foucault (1972), I employ "concept" to refer to the way observations and heterogeneous phenomena are grouped and given particular significance under specific circumstances. For Foucault concepts emerge within a particular discursive network and among relations "established between institutions, economic and social processes, behavioral patterns, systems of norms, techniques, types of classification, modes of characterization" (1972, 45). Thus, a concept such as "environment" transforms and is deployed differently over time, and names various phenomena whose grouping may

be vulnerable to contestation. Perhaps we can understand this better by looking quickly at the concept "earth." Thomas Kuhn (1975) writes:

> Consider for another example, the men who called Copernicus mad because he claimed that the earth moved. They were neither just wrong nor quite wrong. Part of what they meant by "earth" was fixed position. Their earth, at least, could not be moved. Correspondingly, Copernicus's innovation was not simply to move the earth. Rather it was a whole new way of regarding the problems of physics and astronomy, one that necessarily changed the meaning of both "earth" and "motion." Without these changes the concept of a moving earth was mad.
>
> (149–150)

The concept "earth" then, like an empty signifier, is hegemonized through a series of operations that fill it in, changing both its referents and its function. With this in mind let us turn then to the concepts that have become a mainstay in the learning sciences: "motivation," "environment," and "behavior." To explore these concepts I shall focus on their use in the work of John Bransford, one of the preeminent learning scientists, and one who has had a significant influence on how we have come to understand teaching and curriculum.

Environment

According to Morton Hunt's voluminous study of psychology, the concept of environment didn't appear in psychology until the twentieth century, when, borrowed from biology, it began to assume its meaning of external surround, consisting of the stimuli with which the organism interacts. Gerald Young in his history of the use of the concept in "Environment: Term and Concept in the Social Sciences," suggests "The very notion of environment" divides the world into inside and outside, with environment referring to all that is outside (1986, 83). Within the field of behaviorism, environment referred to the locus of external stimuli—rewards and punishments—that could be studied, categorized, and controlled. It was analogous to the environment of natural science. The organism existed in the environment, was part of it but was clearly distinct from it. In that sense the environment of the organism could be studied apart from the organism as well as in terms of the effects it had on the organism. Those effects were read in the behaviors of the organism.

Cognitive psychology, and later the learning sciences, attempted to address the dualism of such a concept of environment by positing a third "space" that joined the two, the space of mental representations and the

inscription of those representations at the neuronal level. It is important to understand that the concept of environment precludes the subjectivity of the one in the "environment." Given the behavioral origins of the term within psychology, this is not surprising. An environment is never subjectivized; it assumes a "reality" outside human meaning, a reality that affects humans but is not contingent on the meanings humans ascribe to it. An environment remains untouched by or resistant to the contingent, unpredictable, and endless meanings that would, in, for example, existentialism, transform it into a situation.

Unlike the environment, a situation is already suffused with subjectivity. For Sartre, for example, "situations are neither objective nor subjective" (Simpson, 2002, 165). The situation cannot be "considered from outside" (Sartre, quoted in Simpson, 165). David Simpson (2002) in his work *Situatedness, or, Why We Keep Saying Where We're Coming From*, argues that unlike environment, which has the connotation of objectivity and knowable externality, situation connotes a position that can never be disinterested and cannot be objectively known. It cannot be grasped only subjectively either, but it is the place we all inhabit.

To talk of a classroom environment, then, is already to turn the classroom into an object that exists as a knowable space outside the subjectivities of those who occupy it. In *How People Learn: Brain, Mind, Experience and School*, co-edited with Ann Brown and Rodney Cocking, and again in *Preparing Teachers for a Changing World: What Teachers Should Learn and Be Able to Do*, co-edited with Linda Darling Hammond, John Bransford elevates environment to a central place in the science of learning. Bransford argues in these books for the importance of "designing classroom environments" (Bransford, Brown, and Cocking, 2000, 23). These environments have four characteristics that must be cultivated: (1) they must be "learner-centered," meaning teachers should determine what knowledge, skills and dispositions, cultural backgrounds, and ideas about learning students bring to the classroom and build on these; (2) they must be knowledge-centered, which means that the curriculum should be well organized and developmentally appropriate and provide opportunities for students to demonstrate their understanding of what is taught; (3) they must include formal and informal assessments, which are student friendly; and (4) they must provide a community for learning where students link learning to their lives and where students work cooperatively (23–26).

At first glance there is nothing in these four characteristics that one could find objectionable, other than perhaps the assumptions implicit in the admonition that curriculum should be "developmentally appropriate." Basically, Bransford, Brown, and Cocking urge teachers to get to know their students in more than superficial ways, to plan the curriculum

taking into account students' interests, to provide ways to evaluate student work, and to develop a classroom ethos. The problem with such prescriptions, however, is the use of the concept of environment.

Bransford, Brown, and Cocking could as easily have written about designing classrooms. Why introduce the concept of environment? The reasons, I would venture, are that the learning sciences implicitly preserve their unspoken origins in behaviorism, that they aspire to the status of the natural sciences, and most important, that in their pursuit to control and predict, they must exclude human subjectivity, the life of the psyche, and the effects of meaning making. In bringing students' backgrounds and prior knowledge, good assessments, useful activities, and the organization of the curriculum under the umbrella concept of the environment, Bransford, and the learning sciences in general, posit these as fixed, predictable, and/or objectively knowable. They are cast as immune to the unpredictable swirls of emotions and private meanings circulating in a class, the contingencies of autobiographies or the complexity of situations. Ignored are the minor shocks and pleasures that penetrate the psyche and color and shape whatever happens in a particular class on a particular day. In constructing the classroom as environment, the learning sciences open it up to interventions that can be presented as "best practices" that promise learning, when, in fact, there is no guarantee whatsoever how particular practices, on particular days, will be received by particular students. Although one can generalize and come up with averages, these have nothing to do with the individual student, who is seen through a veil of norms, and thus reduced to an exemplar or anomaly.

Perhaps the clearest example of this elision of human subjectivity is in the research that suggests children and students do better and have more developed brains if they inhabit more stimulating environments. Based on animal studies and linguistic studies of word counts, such conclusions sustain the view that middle-class or upper-class environments offer more stimulation than economically impoverished environments. Bransford, Brown, and Cocking write, "Animals raised in complex environments have a greater volume of capillaries per nerve cell . . . than caged animals . . . In this way experience increases the overall quality of functioning of the brain" (118). Such studies are deployed to buttress arguments that more stimulating environments provide more developed brains and, ipso facto, classrooms should be "rich environments." Or to take another example, Martha Farah, a researcher at the University of Pennsylvania, used "the tools of neuroscience to calculate exactly which skills poorer children lack and which parental behaviors affect the development of those skills" (Tough, 2006, 48). She concluded "that the 'parental nurturance' that middle-class parents, on average, are most likely to provide stimulates the brain's medial temporal lobe, which in turn aids the development of memory skills" (quoted in Tough, 2006, 48). Remarkable about such

studies of environment is the view that an environment, whether defined as parental behaviors or material resources or the constellation of stimuli, can be measured apart from the subjectivity of those involved or without taking into account the multiple and complicated ways social and political forces suffuse an "environment" with meaning, such that it cannot be considered apart from these, any more than the observer can. We can say that the conditions for the poor are often brutal, hard, and oppressive, but those same conditions may also, when experienced by a particular kid on a particular evening, appear as magical and mysterious as the fireflies jarred in a back alley filled with crack needles.

Finally, in postulating the environment as the organizing concept for a plethora of phenomena that occur *outside* the student or teacher, the power to provoke responses resides in the environment, not in the students. Questions of learning are reduced to questions of competition among stimuli as to which of them will be the most potent in successful learning. The subjectivity and agency of both student and teacher are removed at the same moment when the teacher is held responsible for choosing the best stimulus. A teacher's knowledge of his or her students translates into knowledge of which stimulus will work best. In this sense the concept of environment turns teaching into manipulation, or the best way to motivate and control students.

Although use of the concept of environment in the learning sciences carries traces of its origin in behaviorism and sustains an aspiration to scientific objectivity that diminishes the psychic lives and thus the subjectivity and autonomy of teachers, two other concepts also conspire in their association to mechanize teachers and students: motivation and behavior.

Motivation

The concept of motivation, according to Kurt Danziger (1997), entered the discourse of psychology in the late 1920s and from then on grew in importance in the field, although Russell noted in 1970 that "[o]f all the central issues in psychology, none has proven as recalcitrant to human understanding as those dealing with motivation" (quoted in Glover and Ronning, 1987, 9). Danziger attributes the initial ascent of the concept of motivation to the following factors present in the early part of the twentieth century: popular interest in finding out what makes people tick, that is their motives—an interest provoked by psychoanalysis; the "expansion and rationalization of the education system" (1997, 111), which required some explanation beyond intelligence for why students were not paying attention; the boom in the advertising industry, which was preoccupied with "inducing new needs and desires among potential consumers" (112);

and, finally, the turn by industry to scientific experts, whose knowledge of rewards and incentives promised greater worker efficiency.

As motivation emerged as a mobilizing concept in psychology and education, it "signaled a profound change in the understanding of human subjectivity" (114).

> There had always been words referring to different facets of human intentionality, wish, desire, want, will, motive, and so on. These were usually invoked when it was a matter of accounting for one's own, or others' deviation from the automatic habitual patterns of action that characterize everyday life. "Motivation," however, depart[ed] from this usage in setting up an abstract category that group[ed] all the older referents together, implying that they all had something important in common. All action, no matter how trivial or habitual, [was] motivated, according to those who were selling motivation.
>
> (114)

What they had in common, however, was not abstracted "from a variety of terms referring to inner experience but from a variety of terms used in the context of influencing people" (114). The concept of motivation abstracted from these terms their potential usefulness for manipulating and influencing others (115). In other words motivation was phrased in terms of how we persuade people to do something or want something. Initially, then, motivation concerned incentives located in the environment that could control or condition individuals. The concept soon broadened its purview.

Danziger goes on to trace how the concept of motivation moved through different incarnations within different fields of psychology, for example at one time circulating within behaviorism as connected to drive or to stimulus–response and then, at another time, emerging as need, for example within the human potential movement as the need for self-actualization (122–123). As the explanatory power of motivation has shifted from a locus of extrinsic incentives tied to specific behaviors, to the site of physiological causes for discrete behaviors, to locating intrinsic incentives as the cause of particular behaviors, to the place of cognition as a necessary and sufficient cause to motivate individuals, the earlier mechanistic assumptions and overtones of manipulation have been preserved. Bransford, Brown, and Cocking (2000) are explicit about the residues of behaviorism when they state that motivation to learn is built on the "process of forming connections between stimuli and responses" and is "driven primarily by drives, such as hunger, and the availability of external forces such as rewards and punishments (e.g., Thorndike, 1913; Skinner, 1950)" (6). They go on:

> Motivation affects the amount of time that people are willing to devote to learning. Humans are motivated to develop competence and to solve problems . . . Although extrinsic rewards and punishments clearly affect behavior . . . people work hard for other reasons as well.
>
> Challenges, however, must be at the proper level of difficulty in order to be and to remain motivating: tasks that are too easy become boring; tasks that are too difficult cause frustration. In addition, learners' tendencies to persist in the face of difficulty are strongly affected by whether they are "performance oriented" or "learning oriented".
>
> (61)

Implicit in these statements are residues of behaviorism: behaviors are primarily a result of intrinsic or extrinsic rewards and punishments. More important, however, is the fact that motivation itself can be defined only retroactively: one can be said to have been motivated only if one has persisted for a specified amount of time on a particular task. Furthermore, the "too" in the claims about level of difficulty renders the sentences tautological: the task can only be defined as too easy if the person became bored, too difficult if the person grew frustrated. Individuals are performance oriented if they don't persist in the task; learning oriented if they do. But the reason they persist is that they are learning oriented and the reason they don't is that they are performance oriented. The cause and result are the same. Furthermore, the remnants of behaviorism "black box" the subjectivities of the students and teachers. How? Because motivation is determined and defined by demonstrated behavior: I cannot say I am motivated to do X and not do it. I can say I am engaged in thinking about X, that I want to do X, that I desire X, that I am curious about X, that I wish for X, that I am involved in X, or even that I am driven to do X, and I can make these claims without doing X. I cannot say, however, that I am motivated to do X and, assuming there are no impossible obstacles present, not do X. Motivation, as it is defined and determined, requires demonstrated behavior, which in turn defines and determines the level of motivation.

Finally, because the concept of motivation as it is currently used preserves its behavioral traces, it is deployed to lend to a variety of policies the aura of objectivity. In a 2003 report entitled "Engaging Schools: Fostering High School Students' Motivation to Learn" sponsored by the National Research Council's Committee on Increasing High School Students' Enjoyment and Motivation to Learn, and supported by a grant from, among others, the Carnegie Corporation of New York, the authors offer ten recommendations for motivating students. According to

the report, "the committee drew on psychological research on motivation" (Committee on Increasing High School Students' Enjoyment and Motivation to Learn, 2003, Executive Summary, 2) They found that "a common theme among effective practices is that they address underlying psychological variables related to motivation, such as competence and control, beliefs about the value of education, and a sense of belonging" (2). The effective motivational practices engaged in by schools and teachers include "providing challenging instruction and support," conveying "high expectations," offering choices, making "the curriculum relevant to adolescents' experiences, cultures and long-term goals," "personalizing instruction," "showing an interest" in the students, and creating a supportive . . . environment" (4–11). These all lead to learning.

What is striking about these claims that are presented as ways to motivate students is that the concept of motivation is so completely superfluous to their point. The report here and in its ten recommendations argues that a host of policies and practices will result in students learning, and therefore these policies motivate students to learn. The causal connection is both unnecessary and unsupported and the reasoning is again tautological. We assume someone was motivated to learn because they learned and they were motivated to learn because they were treated, let us say with respect, by a teacher. Although there may be a correlation, there is certainly no reason to claim a causal relationship. Furthermore, can we even say with any reasonable certainty what led a student to learn or behave in a certain way?

Whereas we might argue that small class size, an intellectually and aesthetically complex and varied curriculum that takes into account students' interests and experiences, and a varied and extensive extracurriculum provide more opportunities for students to learn, and we might claim a safe and respectful classroom ethos offers students some calm in otherwise hectic lives, we cannot claim that these motivate students to learn. The very concept of motivation, by assuming nomological causality, again strips teachers and students of not only subjectivity but also agency. Social engineering masked as social engagement renders teachers and students invisible, and replaces them with mechanistic patterns of predictable and controllable behaviors.

Behavior

The last concept I want to analyze here is behavior, because the concept is used frequently in writing about education, although its antecedents in behaviorism frequently remain unacknowledged. According to Raymond Williams (1983) the concept of behavior emerged in the nineteenth century as an umbrella term for the various actions that could be observed of an organism, particularly animals. As the term migrated into experimental

psychology, it preserved its connotation of being observable. Later, observable was "modified to 'experimentally measurable,' various kinds of 'mental' or 'experiential' data being admitted under conditions of controlled observation" (44). Eventually behavior collapsed into interaction with the environment and responses to stimuli, thus ignoring intention or any psychic component that might lend itself to hermeneutical interpretation.

Danziger (1997) considers the concept of behavior to be the foundational category that psychology used "to define its subject matter" (86) and traces five phases of its evolution. The last phase he locates in the behaviorism of the 1940s, when "behavior had come to mean any aspect of human activity that could be predicted and controlled by psychologists" (101). When we approach education, teaching, and curriculum we must add to this meaning the fact that behavior has also become both the determinant and the measurement of what constitutes successful pedagogy and curriculum. It is the determinant insofar as specific teacher behaviors are said to determine what is deemed learning: teachers who operationalize their objectives, provide detailed rubrics, move around the room, all those behaviors that, for example, INTASC deems necessary to successful learning. Behavior also constitutes the measurement of learning in that the performance of learning—the demonstration in behavior—constitutes the definition of learning. Teachers demonstrate successful teaching and students demonstrate successful learning by *behaving* in particular ways that can be observed and that conform to particular standards. We are back to accountability and standards.

It should be clear that the three concepts I have analyzed preserve their origins in and assumptions germane to behavioral psychology and in particular behaviorism (Hunt, 1994). The learning sciences, however, while deploying these concepts have sublated behaviorism. Currently cognitive science and neuroscience rein supreme, but they replace behaviorism with representations of stimuli and responses, offer a lure of agency in a constructivist agenda, and displace onto neuronal structures the various processes of classical and operant conditioning. Important to note is that in ignoring considerations of subjectivity, the unconscious, or even the vicissitudes of emotions and in replacing situation, desire, and activity by environment, motivation, and behavior, the learning sciences have provided a lingua franca for educators, but one that translates and imports the language and practices of the marketplace into the domains of teaching, curriculum, and education. Central to that language is the theory of learning.

Learning

> It must be emphasized that "learning" is a postulated concept. There is no such "thing" as "learning." Learning theory is postulated as an explanation of how certain aspects of behavior are changed.
>
> —Dwayne Huebner (1975b, 240)

> Mental philosophy is, in a sense, a psychology, but a psychology of beings who never display anything even resembling psychic life.
>
> —Vincent Descombes (2001, 10)

These days the phrase "all children can learn" appears in every major educational policy statement, along with the implicit demand that teachers ensure all students do learn. A focus on learning strategies, learning styles, learning communities, learning outcomes, and learning environments shapes our approach to teaching and curriculum. In education courses and in professional development, the main criterion for evaluating curriculum and pedagogy is their impact on student learning. As the learning theorists Bransford, Brown, and Cocking (2000) claim, "teaching practices must be based on a core set of learning principles" (22–23). Even the rationale for emphasizing critical self-reflection for teachers is phrased not in terms of the teacher's psychic exploration but in terms of its effects on student learning. So central has learning become to our view of education that it seems ludicrous to question, let alone challenge, the assumption that a teacher's value is synonymous with a student's learning. As Jane Pollock writes in *Improving One Teacher at a Time: Improving Student Learning*, a successful ASCD publication, "[Y]ou are an effective teacher if all your students learn," which for her means meeting "the school's expectations or benchmarks" (2007, 2).

Even in higher education, where until recently discussions focused on the content of a liberal education, the canon, and issues of interdisciplinary studies, today, more often than not, one hears talk of measuring learning. In a May 2008 "Point of View" article in the *Chronicle of Higher Education*, Stanley K. Katz, Princeton University's director of the Center for Arts and Cultural Policy Studies, argued that "we can begin to evaluate the learning outcomes of a general education" (A32) and that "norms and benchmarks . . . will begin to help institutions help themselves improve learning" (A32). What exactly the learning is that will be assessed and improved is unclear, but measuring *it* helps measure the success of the curriculum and teaching. Deployed as the lynchpin for a host of discursive and non-discursive educational practices, used to justify national, state, and local educational policies, and placed as the focus of vast academic and commercial projects, "learning" emerges as both the telos of and synonym for education.

Today "learning" is defined and articulated primarily by the learning sciences. If learning is now what education is about, then the learning sciences, claiming as they do to be a science of learning, command the respect once given to behavioral psychology and then to cognitive science. The difference is that although in the past psychology exerted a disproportionate influence on the policies regulating teaching, curriculum, and teacher education and although they constituted the dominant discourse on education, there were alternatives. Today the alternatives have all but ceased to be heard. Even the alternative labeled by Marilyn Cochran-Smith and Kim Fries the "social justice agenda" (2005, 45) has been largely subsumed by the discourses of inclusive education or reduced to the performance standards of NCATE's Standard 4: Diversity. Multicultural education and social justice, phrased increasingly in terms of cultural background and cultural sensitivity, have emerged in terms of their contributions to or justification for the focus on student learning (Darling-Hammond and Bransford, 2005).

Learning itself, as Kurt Danziger (1997) points out, has had a long association with behavioral and then cognitive psychology. "The laws of learning," Danziger writes, "represented the fundamental principles of scientific psychology" (103). As Huebner suggests in the quote opening this section, the belief in such laws relied on a constructed category that grouped various "learning" phenomena and unified them according to a single set of regularities (Danziger, 1997, 103). In other words, psychologists subsumed under learning "categories such as association, habit, imitation, memory, education, training and so on" (103), and undertook "experimental studies that used both rats and humans as subjects in research on the learning process" (107). Soon statistical abstractions based on behavioral responses functioned as the "practical counterpart of the conceptual abstraction involved in the category of learning" (107). The learning process that was abstracted consisted not of, for example, education's emphasis on study, or the relationship between habit and physiological reflex, or memory's distinction between remembering and memorization, but rather of a demonstrated and observable change in behavior that could be said to have resulted from a stimulus. That behavior could be measured.

For much of the twentieth century, according to both Danziger and Hunt, learning referred to the ability of the organism to demonstrate a change in behavior. Theories of learning thus remained firmly in the hands of behaviorists. After World War II cognitive psychologists, through the introduction of metaphors from the world of computer science, widened the scope of learning to include the individual's ability to retrieve and store information, construct new knowledge based on prior knowledge, move step by step up structural hierarchies supposedly inherent in disciplinary knowledge and thinking, employ metacognitive strategies, and

demonstrate comprehension and transfer of learning. Nevertheless, whatever the internal processes psychologists postulated were, they needed to be demonstrated in individual behavior. Learning "was always a phenomenon of individual change, never one of co-change among several individuals sharing a social field" (Danziger, 1997, 108), and the change had to be shown to be an effect of an earlier intervention.

As I have noted, the discourse of outcomes based education, mastery learning, competency-based education, educational objectives, instructional design, and learning environments influenced the conversation on education in the 1960s and 1970s, but at the time there were alternative discourses to these. The free school movement, open education, the reconceptualization of the curriculum field, the civil rights and feminist movements' critiques of education, and, later, the discourses of identity politics (Pinar et al., 1995), as well as the views of writers such as James Koerner (1963), Allan Bloom (1987) and Diane Ravitch (2000, 16–17), who argued for a focus on an "academic curriculum," offered views of teaching and education that focused on academic content, politics, sociocultural change, and the internal life of teachers. Only when learning began to replace teaching and curriculum as the object of attention, and when "teacher education [was] constructed as a learning problem" (Cochran-Smith and Fries, 2005, 88), did the influence of the learning sciences on education swell. Furthermore, it was only in the alliance with neuroscience that the learning sciences could, in their attempt to merge with the natural sciences, proclaim a material basis for their presumptive claim to be a science of learning.

That learning did ascend to the preeminent position it holds today in education is related to the constellation of forces we have examined in the previous chapters: the rise of neoliberalism and audit culture; the increasing flagellation of teachers in the media; the withdrawal of resources from public education and rise of conservative attacks on educators; the transformation of education into a lucrative market; the sense of loss teachers have felt in the face of the erosion of the public space and the neglected ideals of racial integration and economic equality; teachers' fears of economic instability, school violence, and racial tensions; and the self-lacerating attacks on teachers and educators by members of their own profession. The discourse of and practices promoted by the learning sciences were available to respond to these forces. They promised and promise certainty, status, and a defense against the turbulent unpredictability of the classroom. They claim that if they are followed, all students will succeed, and social problems will be solved. They assert that all students can and will learn, and they contend that learning is and should be the primary focus of education and teaching. Given its centrality to their pronouncements and programs, the question is: How exactly do the learning sciences define learning?

In general, learning scientists define learning in terms of the retention, retrieval, transmission, and transference of predetermined skills, dispositions, or knowledge. At times learning scientists will talk about learning with understanding, but understanding is defined as " 'usable knowledge' . . . organized around concepts" (Bransford, Brown, and Cocking, 2000, 9), which can be demonstrated in contexts other than those in which the original learning occurred—in other words the application and transfer of what is learned. Knowledge they define as information, facts, concepts, and disciplinary methods and structures. Occasionally they mention dispositions, as in knowledge, skills, and dispositions, the NCATE mantra, but generally dispositions are translated as conduct in the classroom.

Learning itself is construed as the outcome of cognitive and neurological processes taking place inside the individual, generally the individual's brain, although learning scientists often point out the importance of social conversation in cognitive development. But because these processes are only postulated, to know if learning has occurred, there must be some demonstration of it. And because to know if what is demonstrated equates with what was taught, teachers must formulate, as precisely as possible, learning outcomes and rubrics that align with learning objectives, such that the learning outcomes mirror the learning objectives. Thus, teaching emerges as the most expeditious method to move students from point A, the learning objective, to point A1, the learning outcome or performance outcome, a kind of conveyor belt with checks along the way. The end of teaching (perhaps all too literally) is to ensure students can demonstrate what is called for in the learning objective and operationalized in the learning outcome or performance outcome, which means that teachers teach to the outcome and students demonstrate their learning through either a change in behavior or, as brain science more aggressively stakes a claim in the learning sciences, a change in neurological structures.

I want to turn now to the assumptions implicit in the learning sciences' theory of learning. These assumptions not only affect approaches to teaching, but also open a conduit between education and the logics and language of the marketplace.

The first assumption that informs the learning sciences is that learning means learning something that can be demonstrated or reproduced. The something can be a behavior, skill, disposition, or piece of information; the content is not important. This is why *How People Learn* and *Preparing Teachers for a Changing World* can simply ignore questions of content other than to discuss its organizational structure. The only criterion is that whatever is learned must be known in advance and must be aligned with learning outcomes. Learning cannot be random. If years after taking a class, a student says he or she learned from the teacher never to voice a personal opinion, that "learning" cannot constitute learning in the sense in which it is meant in the learning sciences. If it did, learning would be

a subjective experience that would always be occurring. Everyone would learn all the time, since we can always say we learned something or many things from an experience. Within the learning sciences, learning must be contained, defined, limited to the actual demonstration of that which has been specified in advance by the learning objectives. In this sense learning is always the learning of that which precedes it, the learning of what is meant to be learned.

The second assumption is that learning is in fact equivalent to the old classical and operant conditioning, only now relocated to the cognitive and, with the assimilation of neuroscience, to neuronal levels. One hears this in Eric Kandel's (2006) discussion of learning in terms of classical conditioning, habituation, and sensitization or in Antonio Damasio's (1994) reliance on the language of stimulus and response rephrased at the level of chemistry or in Bransford, Brown, and Cocking's definition of metacognition as "people's abilities to predict their performance on various tasks (e.g. how well they will be able to remember various stimuli)" (2000, 12). Learning, as defined by the learning sciences, follows specific rules governing the process itself. It occurs in predictable ways, can be controlled, and unfolds according to set neurological and cognitive processes, which may be wired into the brain but certainly can be activated or enhanced through specific interventions.

The third assumption is that learning must be retrievable or demonstrable on demand. The knowledge, skills, or dispositions defined by objectives and isomorphic with the outcomes and rubrics must be demonstrated in a specified time. The time of learning is the time of providing the right answer. It is the time of stimulus and response. The time of learning is terminable. The time of learning is the time of short-term memory. The student who successfully demonstrated his retention of the causes of World War I on the New York State Regents exam is said to have learned those causes, even if that student doesn't remember them a month later. The student who missed the Regents question but, years later, found him or herself drawn to and oddly familiar with a novel or essay on trench warfare is not. The paradox of equating learning with memory was beautifully captured by Kafka, when he wrote:

> I can swim like the others only I have a better memory than the others. I have not forgotten my former inability to swim. But since I have not forgotten it, my ability to swim is of no avail, and I cannot swim after all.
>
> (quoted in Phillips, 1998, 2)

What counts is what is demonstrated.

The fourth assumption is that the content of learning is learning itself. Rather than traditional content being the focus of the learning sciences,

learning strategies, thinking skills, critical thinking, decision making skills, and adaptive expertise, all of which are often grouped under metacognitive strategies, become the content. The reason content is collapsed into process is that these skills and strategies can be demonstrated and thus measured. For example, studying verb forms or developing a love of Keats's poetry or imagining new dances are worthwhile projects in which teachers and students can engage, but these can enter the discourse of the learning sciences only if they are recoded as performance outcomes: the student will demonstrate a knowledge of verb forms by editing a piece of writing with errors in tense, the student will decide on and read two volumes of Keats's poems, and explain her reasons for the decision in an essay aligned with specified rubrics, or the student will choreograph and present a dance piece, explaining the choices made. In each of these the focus is on the reasoning, the critical thinking, or the metacognitive strategies used to achieve measurable results, and although the performance outcomes are what is measured, the thinking processes are placed under surveillance.

Because metacognition requires students to "monitor their current levels of mastery and understanding" (Bransford, Brown, and Cocking, 2000, 12) as if these were analogous to blood levels, a focus on metacognition pushes students to engage in constant surveillance of how they think—often referred to in schools as "think-alouds." The problem here is that the monitoring of audible thinking turns it into auditable thinking, and accustoms students to a view of education as monitoring their own thinking skills, irrespective of content or the problematic issues surrounding those skills. Furthermore, education or teaching comes to focus on *controlling* thinking rather than on the messy, complicated give and take of struggling with questions and problems.

As defined by the learning sciences, metacognition recodes thinking in terms of skills and strategies that are portable. They can be transferred from location to location, context to context, much like Latour's immutable mobiles discussed in Chapter 5. The ability to transfer skills and strategies or applied knowledge from context to context is extremely important in the learning sciences, since it defines learning as understanding, as opposed to simply retention, retrieval, and reduplication. Interestingly, however, learning scientists such as Bransford claim metacognitive strategies are "not generic across disciplines which means they are specific to disciplines" (Bransford, Brown, and Cocking, 2000, 19). In other words, metacognitive skills or strategies or approaches to organizing knowledge are generic in abstract form, i.e. they are decision making skills, planning skills, retention skills, retrieval skills, rehearsal skills, and transfer skills, but these skills themselves take different forms within the specific disciplines. Apparently how historians remember, retrieve, plan, and decide is different than how geologists do. This slide from the abstracted, generic

metacognition into disciplinary methods and disciplinary content, however, poses problems.

If "defining learning goals and monitoring one's progress in achieving them" and "understanding one's own thinking and developing strategies for planning and analyzing, and gaining more knowledge" (Hammerness et al., 2005, 376) are specific to the disciplines, then there is no way to discuss them in a meaningful way outside the disciplines. They are context-specific. But if that is the case, then there is no need for the addition of the concept "metacognitive," since disciplinary specialists have always been engaged in the procedures of their discipline, and extrapolated those procedures in terms of, for example in English, New Criticism or reader-response theory, or in history, archival research or Marxist interpretive lenses, or in chemistry, protocols for experiments and quantitative methods of research. The point is that the criteria for what constitutes knowledge in these disciplines and how one posits, approaches, and articulates the object of study differ, but not, except in the most banal sense, in terms of (1) developing a plan of action, (2) maintaining the plan, (3) monitoring the plan, and (4) evaluating the plan, which are the basic elements of metacognition.

In several respects on closer inspection either metacognition equates with study skills or, as Brown (1987) indicates, metacognitive training is really a new term for the infinite regress of learning to learn. What has actually happened then is that specific processes or skills, today often phrased as the twenty-first-century skills needed for the global marketplace, are extrapolated from the disciplines and then returned to them as if they were the central components of those disciplines. This brings us to the fifth assumption the learning sciences make.

The fifth assumption is that there are intrinsic or inherent structures in the disciplines. This idea was actually rejected by Bruner some time ago (Pinar et al., 1995, 160), but it lingers on in the learning sciences where disciplinary expertise "provides important information on how knowledge should be organized" (45). Learning such expertise will lead, Darling-Hammond and Bransford claim, to "adequate transfer of training" (Bruner, 1960, quoted in Bransford et al., 2005, 45). According to Darling-Hammond and John Bransford, "How knowledge is organized . . . affects how information is retrieved" (45). Citing Bruner as a source, they argue that "knowledge should be taught by prioritizing it into categories that range from 'enduring ideas of the discipline' to 'important things to know and be able to do' to 'ideas worth mentioning' "(Darling-Hammond and Bransford, 2005).

The claim that there are set disciplinary methods and "ways of knowing" *inherent* in the disciplines advances a view of epistemology and the disciplines that most sociologists of the disciplines as well as most

academics would reject. Can we really say that Edward Said (1993) approached literature in the same way that Harold Bloom (1994) does or that Leo Bersani (1986) does? Are the objects of literary studies popular literature, comic books, visual artifacts, or the canon? The canon wars in literature and history, and the debates over postmodernism within sociology and over imperialism within anthropology, suggest that knowledge and modes of knowing are contested even within the disciplines. Paradoxically, the learning sciences' response to the contested nature of knowledge and the politics of the academy consists in abstracting from the disciplines generic skills, similar to Bloom's taxonomy, and then in reintroducing these skills back into the disciplines, conflating them with disciplinary methods and knowledge, when in fact they are little more than study skills.

Furthermore, to assume that an elementary, middle, or secondary school education should be modeled on the academic disciplines assumes the objective worth of academic vocationalism. Should we really be preparing English majors in high school English classes? That has been the approach since the 1892 Committee of Ten's recommendations resulted in the college major determining, with the exception of social studies, the organization of the high school curriculum. But this is a political decision, not a scientific fact and to take it as a given is worrisome, because it assumes unanimity of view within the discipline, promotes academic vocationalism, and assumes epistemological hierarchies. Furthermore, the lingering question about hierarchies is: Do the grand concepts that Bransford, Brown, and Cocking argue distinguish experts' knowledge sit at the top of the hierarchy, in which case, contrary to what they argue, teaching them to neophytes would present problems, or do the finer, granulated, pieces of disciplinary knowledge lie at the top, in which case their definition of experts would not hold?

The final assumption the learning sciences make is that there are inherent cognitive structures in the mind/brain. Although the term is not used much any more, these structures or conceptual architecture, a term recently revived, closely resemble schema and schemata or, in other words, "a problem solver's general mental representation of the structure of the problem" (Dahlin, 2001, 329). Central to the learning sciences, this Kantian link (Kant, 1993) between the sensational realm of appearances and stimuli and the conceptual realm of understanding aspires to the role played by models of atoms and molecules in physics and chemistry. But the latter offer explanations, whereas schema and schemata or concepts as defined by the learning sciences offer only descriptions, although they aspire to explanatory force and nomological certainty. They rely for proof of their existence on either demonstrated skills or verbal descriptions of thinking, which are then read back as examples of these cognitive

processes or they appeal to brain imaging, which is meant to show that the conceptual structures are embodied in a particular part of the brain: when a part of the brain goes dark, a skill is inaccessible, thus apparently demonstrating a causal link between the two. Given such logic, one must wonder whether the crashing of my computer and thus the end of my writing suggests that my computer is causing the writing.

Before turning to what the learning sciences mean for teaching, I want briefly to consider the newest addition to the learning sciences, neuroscience and brain research, although as Bransford et al. state, while "research on the human brain is progressing rapidly, direct connections between brain science and specific teaching practices are not clear at this point" (2005, 63).

Neuroscience

In a 2007 article entitled "Bridging Genomics and Education" that appeared in *Teachers College Record*, Elena L. Grigorenko, an associate professor of Child Studies and Psychology at Yale University, and a recipient of the APA Distinguished Award for an Early Career Contribution to Developmental Psychology, argued that teachers should become familiar with genetics and that *educogeneticists* will one day serve as experts advising teachers on learning. According to Grigorenko, "Genomics is on its way to characterizing every individual in terms of his or her genetic 'script'." Because those scripts influence how one learns, "educators must get involved in the translation of findings from genomics" for three reasons:

> First, . . . educators and psychologists [can] inform geneticists of what aspects of academic skills appear to be sources of individual differences in students, . . . and the information can be used to avoid failure through pedagogical and, possibly, pharmacological interventions.
>
> Second, . . . new and exciting findings linking individual differences in cognition to genetic variation will no doubt be of interest to educators. For example, . . . carrying a particular gene might put a student at higher risk for academic failure; such students might need additional support in developing their working memory, planning, and other aspects of metacognition.
>
> Third, . . . [w]hen parents, informed by genetic findings, come to educators asking for advice and accommodations for their children, educators will be expected to be ready to respond.

If all this sounds a bit like the eugenicist world depicted in the 1997 film *Gattaca*, the dystopia presented in that film, like those presented in

the other three classics of dystopian sci-fi, *Blade Runner*, *Total Recall*, and *Eternal Sunshine of the Spotless Mind,* does seem a logical extension of the work offered by neuro- and cognitive scientists such as Eric Kandel (2006) and Antonio Damasio (1994). I don't think it's coincidental that these authors, as well as Grigorenko, offer disclaimers that their own work does not herald the vision of totalitarian brainwashing and mind control depicted in these films. The question is, though, how *is* their work different? If we can locate in the brain specific memories and stimulate them, as Kandel suggests we will be able to do, we may also one day be able to erase them; if we can stimulate emotional states, behaviors, and accompanying feeling states through electrical current, as Damasio shows is possible, we could plausibly one day engender through chemicals or other interventions various feelings, behaviors, and beliefs, and perhaps—why not—even memories? And if we can enhance memory and concentration, and perhaps strengthen areas of the brain associated with basic literacy and numeracy skills, as Grigorenko suggests, we may one day be able to pharmacologically ensure learning.

Basically, then, if we can intervene at the biological level to produce psychic phenomena and enhance mental capacities, if we can bypass the traditional subject and produce desired effects, whether high math scores or encyclopedic memories, how does such engineering affect our understanding of what it means to be human, what it means to possess an inner life, and what it means to be educated? It's clear that subjectivity as we understand it, like consciousness, becomes in such scenarios what Daniel Dennet (1991) calls a "user's illusion." But if consciousness or subjectivity is superfluous, the question arises: Why do we have it? And indeed consciousness is a sticking point for the neuro- and cognitive scientists whose work informs the learning sciences.

For both neuroscientists and cognitive scientists, consciousness and subjectivity remain a puzzle, what David Chalmers (in Blackmore, 2006, 38) calls the "hard question." What they are unable to offer is precisely the theory of why human beings are destined to ask themselves questions that they cannot answer. The more the learning sciences explain how a certain mental process works the less they need consciousness, and the learning sciences are bent on explaining those processes. What they cannot explain is why we are obsessed with existential questions when we do not need them; why, that is, there is subjectivity.

My tentative answer to this question is that subjectivity arises when something doesn't work. In other words there is some interruption in the homeostatic circuit that exceeds, jams up, or interrupts that circuit. There is some excess, some remainder that cannot be integrated into the smooth functioning of learning as the learning sciences understand it, and thus a gap opens. Let's take the example of the genome and the idea that the

human being can be objectively determined, reduced to a basic formula equivalent to "who one is." One would encounter, oneself, or one's being, as a formula. But would not this encounter, with the formula that one is, open up the gap of subjectivity? Don't we encounter this gap, too, in the student who actually knows what he or she is meant to say or do, but resists, intentionally fails, as if possessed by Poe's imp of the perverse? Do we not meet this gap when we read a text that both startles and compels us with its incomprehensibility, unmooring us from our taken-for-granted reality?

Although the application of brain research to education is becoming increasingly lucrative in terms of both grants and marketable programs, the vocabulary of neuroscience has not yet replaced the cognitive lexicon of the learning sciences. It has, however, promised a material basis for the claims of the cognitive branches of the learning sciences, and in doing so, has furthered a transformation in education that deprives teachers of their autonomy and reduces education to teaching by numbers and learning. Let us turn then to how the learning sciences shape approaches to teaching.

Implications for Teaching

Because the learning sciences drain curriculum of content, replacing it with learning, teaching emerges not as the shared study of the curriculum but as "configuring a sensible sequence and set of activities" (Darling-Hammond et al., 2005, 184), "operationalizing learning goals, and making clear the criteria for good performance" (186). The sequences, set of activities, learning outcomes, and criteria for assessment are based on students' prior knowledge, principles of learning, and standards and their elements.

Teachers' knowledge of how students are thinking, gleaned from thinking made visible (Bransford, Brown, and Cocking, 2000, 78), apparently makes for better interventions. As Bransford, Brown, and Cocking state, "Without carefully considering the knowledge that students bring to the learning situation, it is difficult to predict what they will understand about new information that is presented" (2000, 136). Keep in mind that the learning sciences attend to the interests of students insofar as these will contribute to or predict learning. The determination of students' prior knowledge has little to do with what students or teachers find compelling, since it is elicited about a subject that has already been determined. Like the purportedly motivational "Do Now" of New York City lesson plans, a five-minute exercise often having little to do with what is taught other than to "elicit" prior knowledge, the focus on prior knowledge frames teachers' engagement with students in terms of the performance

outcomes and offers opportunities for manipulating students towards that end point.

The scope and sequencing of the curriculum around which the curriculum is to be organized are themselves phrased in terms of performance standards; input standards, we have seen, have fallen out of fashion. The significance within the learning sciences of these performance standards lies in their regulatory power. The elements of standards tell teachers what they should teach.

> Teachers need to be able to figure out how to organize their curriculum around the most important learning elements implied by the standards and configure a sensible sequence and set of activities for the particular students they teach.
>
> (Darling-Hammond et al., 2005, 185)

> [Teachers] need to know scope and sequence . . . In addition task analysis is important to figure out the prerequisite knowledge and skills that must first be taught if students have not already acquired them.
>
> (186)

Where the teacher's agency is remains a mystery. Within the discourse of the learning sciences, teaching is directed towards the achievement of predetermined and precisely defined learning outcomes through interventions that are targeted at students' presupposed cognitive processes. If those outcomes are predetermined, often by someone other than the teacher, if they are assessed with instruments that are aligned with those outcomes, most frequently standardized tests, if the interventions are directed almost exclusively towards the achievement of those outcomes, then the teacher has less and less to do with the education of students, although that teacher is paradoxically positioned as the primary cause of a student's success or failure to learn.

Several things are worth noting here. First is how similar the learning sciences' conception of learning is to the practices of audit culture, only here the audit is internalized. The language of the learning sciences—"monitoring," "regulatory processes," "sequencing," "performance outcomes," "transfer of skills"—mixes easily with the language of audit, and carries, as it justifies, non-discursive practices imported from the business world. Just as audit culture offers the lure of empowerment through self-regulation, the learning sciences promise to set teachers and students free, with their self-monitoring skills to "match their processing resources to learning task-requirements" (quoted in Noble, 1989, 31). As assessment increasingly becomes a central part of learning within the learning

sciences, quantitative measurement and a focus on numerical data displace the more suspect narrative forms. Students, who are constructed as "goal-directed agents who actively seek information" (Bransford, Brown, and Cocking, 2000, 10), and teachers, who emerge as agents in charge of manipulating, monitoring, and changing behaviors to accord with standards set elsewhere, appear as abstract, two-dimensional, and mechanical models of the flesh-and-blood, complicated students and teachers with whom those of us who work in schools are familiar. As classroom life, education, teaching, curriculum, and study are abstracted into the language of "meta," as prediction and control supplant speculation and open-endedness, and as surveillance of students' thought processes becomes the norm, the learning sciences pave the way for the intrusion of the marketplace.

Bransford, Brown, and Cocking write, "A major goal of school is to prepare students for flexible adaptation to new problems and settings" (2000, 77), because "helping learners choose, adapt, and invent tools for solving problems is one way to facilitate the transfer" of school knowledge to the workplace and home, "while encouraging flexibility" (78). Not only do the learning sciences value and promote flexibility, adaptability, and decontextualized skills that are transferable, they also value expediency: if "[i]n assessing learning . . . increased speed of learning the concepts underlying new material" is key (78), then all those involved in education will want the speediest way to learn the most. We see here the twenty-first-century skills needed for the global workforce or flat world, we see the language of surveillance and self-regulation, and we see the abstraction from lived experience of rationalized skills and the conflation of knowledge with information. We see the gradual construction of abstract figures that can be controlled from a distance. We see the move from information processing to information managing, which is automating our ability to process and communicate data or bits of information (139), but is done most effectively in small learning communities. And, finally, we see the mechanization of both students and teachers.

Since learning has already been defined as the achievement of learning outcomes and the ability to monitor and control or manipulate one's thinking, then content, as we usually think of it, is hollowed out. If lectures, discussions, and learning activities are all directed to developing predefined skills, dispositions, and knowledge as defined by precisely articulated outcomes, then there is nothing to explore, there is only something to repeat, there is nothing to question, there are only answers, there is nothing to create, there is only reproduction. For example, if student discussion of whether love is a revolutionary act in Shakespeare's *Romeo and Juliet* is circumscribed by the outcome of a successful articulation of an answer to this question, and the teacher's focused discussion is in the service of getting students to respond accurately to this in an essay

question evaluated according to specific rubrics, then the exploration of that question has already been narrowed, limited. If, for example the discussion takes off into a discussion of sex before marriage or one student's fight with her father or another's fight with a kid over a girl, that discussion must be brought back to the topic, to the question whose answer is already delimited.

Such a definition of learning cannot tolerate questions that have no final answers, or speculations that raise further questions or that, if you will, make no sense within pre-established rules. Intolerable is talking or symbolizing that originates from or speaks to a place that is not recognized within the boundaries of "learning." Intolerable is thinking that does not match, cannot, within the a priori rules, match, that which is deemed to constitute learning. As Sylvain Sirouis, the director of Babylab at the University of Manchester, said in a recent *Time* magazine article on the brain, learning is "the laborious business of resolving mismatches" (Brunton, 2007, 94). Learning, as defined by the learning sciences, not only is known before it is achieved, but assumes a naïve correspondence between words and things, and intention and meaning. Learning can never, within this view, be understood as saying more than it means or meaning more than it says. An answer or response is equivalent only to itself.

The language of the learning sciences is certainly instrumental. That is not news. What we have to remember, though, is that such instrumental language is not in itself a problem. We all use it whether to build a bookcase or to plan a workout schedule. If the learning that comes to form in such language, however, constitutes the content of education, and we have seen that it does, then education itself, that is teaching and curriculum, emerges as little more than means and ends and as such lends itself to marketing. The means–end rationality of the cognitive view point turns information into a commodity, and individuals into "surveyable information consumers, within market economy conditions" and thus "performs ideological labour for modern capitalist image makers" (Frohmann quoted in Dahlin, 2001, 296).

The means–ends rationality also emphasizes what Lyotard (1989) describes as "performativity":

> [Technical devices] follow a principle, and it is the principle of optimal performance: maximizing output (the information or medication obtained) and minimizing input (the energy expended in the process). Technology is therefore a game pertaining not to the true, the just or the beautiful, but to efficiency: a technical "move" is "good" when it does better and/or expends less energy than another.
>
> (44)

Reduce the input, increase the output, and accelerate the process. As Fred Evans (1993) puts it in *Psychology and Nihilism* "any aspect of the environment . . . that cannot be converted into a problem for the precise, efficient, . . . or 'computational' processes of these standardized techniques" is not considered rational (2). And once rendered as portable skills, information, "best practices," strategies, techniques, and performance outcomes, teaching, curriculum, and education are easily packaged, commodified, and sold to consumers, who increasingly, and, given the media's drumbeat, understandably, want those twenty-first-century skills that will make them marketable in the global economy.

Finally, it's important to recognize that missing from the definition of learning assumed by the learning sciences is, of course, any recognition of subjectivity, understood as a kind of "vanishing mediator whose ineffable presence must be acknowledged in our own construction of reality" (Zizek, 2006, 253), or the power of the unconscious, understood as more than various conditioned responses anchored in biology and more than cognitive software located temporarily out of awareness.

Stripped of autonomy and intentionality, emptied of inner life, reduced to conglomerations of skills that are employed in environments in order to stimulate predetermined responses, teachers can easily be replaced by bureaucrats, mechanics, or machines. Reduced to information and metacognitive skills, the curriculum lends itself to teacher-proof scripts. It is no coincidence that Mark Tucker's Ramp Up to Literacy was informed by Lauren Resnick's work. Furthermore, the focus on learning as demonstrated outcomes means that whoever can achieve those outcomes faster or better "wins" the "consumer." If Kaplan or a privately-run charter school achieves better scores, or if a scoring machine can evaluate writing faster than a teacher, then logic dictates that they are better. If the arduous and complicated work of study and discussion can be reduced to the demonstration of skills or the demonstrated transfer of "knowledge" and the impossible work of education can be reduced to the language of the learning sciences, and if educators embrace such reductionism, it is no wonder, as William James put it, that teachers are perceived as "poor" "servile things," prey "for systematic mystification and pedantification on the part of the paedogogic authorities who write books for them" (quoted in Berliner, 1992, 7).

While the learning sciences' elevation of learning to the primary goal of education has contributed to the spread of audit culture and the corporate penetration of education, it has also kept us stuck on a merry-go-round of educational reforms and it lures us, again and again, into educational cul-de-sacs by promising to alleviate the shame, fears, and losses teachers experience. If learning is the focus of education, then teachers are positioned as primarily responsible for student learning. After all, there might always be a better way, a more efficacious way to get those

students to learn. We've been hearing about those ways for more than a century. The masochistic ecstasy that some teachers engage in around this imposed responsibility is both horrifying and understandable given the focus on learning. The learning sciences offer the possibility that there exists, just beyond reach, that one final way of ensuring learning, for as Bransford, Darling-Hammond, and LePage write, "There are systematic and principled aspects of effective teaching, and there is a base of verifiable evidence or knowledge that supports that work. In that sense it is like engineering or medicine" (2005, 12). Furthermore, "large disparities in achievement between black and white students [are] almost entirely accounted for by differences in the qualifications of their teachers" (15). According to these influential authors, *all* children will learn if they have teachers who know how to teach. No wonder teachers feel heroicized and shamed.

In maintaining education's focus on learning as its goal, we strive to realize and thus privilege the unrealizable fantasy of smoothly functioning teaching. After all, what could be better than the efficacious application of a particular method to achieve student learning? But what if real education happens when something doesn't work? In other words, what if education consists of some interruption in the homeostatic circuit, an interruption that exceeds, jams up, or interrupts that circuit? What if the aim of education is not learning? What if there is no aim to education other than the brief coming together of teachers and students to question, explore, study, compose, create, and experience a kind of life that most will rarely experience again in our market-driven world? What if those odd folks who teach, who often care less about their appearance and certainly less about material comforts and more about discussing plays and formulas and empathy, more about playfulness and ideals, more about understanding our lives than the vast majority of people care about these things and certainly than other professions do, what if those teachers unknowingly deny themselves the full pleasure of their work by focusing on learning? What if the obsession with learning keeps us on track but also keeps us from being educated? These are the questions we should be considering.

Conclusion

The transformation I have attempted to map in this book continues unabated: the School of Education is already preparing new reports for NCATE while the Dean faces cutbacks in faculty lines and resources; the college is waiting to hear from Middle States about its accreditation; teachers at the Bushwick School for Social Justice are working overtime to cram for the Regents exams and the principal and APs worry about maintaining their grade of A. An Op-Ed column appearing on May 17, 2008, in the *New York Times* by the liberal commentator Bob Herbert reported a conversation with the former governor of West Virginia, Bob Wise, in which Wise caterwauled about the abysmal education system and how corporate executives can't find skilled U.S. workers. A week later the *New York Times* reported on the budget cuts affecting public middle and high schools. The spring 2008 AERA conference continued to focus on the shortcomings of NCLB, but raised no criticism of NCATE or the learning sciences. Congeries of new studies, reports, and white papers from various commissions continue to appear demanding that all children learn, that all students achieve levels of proficiency, that students are prepared with twenty-first-century skills and for the global market, and that teachers be held to the highest standards. The drumbeat continues. Is there any alternative to the inexorable testing, the fatuous language of educational policy, the spread of audit culture, the contumely, vatic pronouncements of doom, and recycled solutions spewed forth by politicians and corporate executives presuming to know something about education?

As we teachers continue to be subjected to abuse, like torture victims, we turn to our victimizers for respite from the pain. We imagine that corporate lawyers and executives, accountants, millionaires and billionaires, men and women, although mainly men, who have championed the eradication of social security and unions, cutbacks in funding for social programs, and the breaking of the New Deal have some insight into how we should educate the youth of this country. What they offer are practices culled from business and the logics of the marketplace. And out of shame, fear, fantasies of grandeur and worthlessness, and a profound sense of loss

we are vulnerable to these. But to be fully cozened we first must be led by the language and concepts of the learning sciences into believing that there really are methods and a knowledge base that will ensure all students can learn. If we just use the data, provide the right motivation, design the best learning environment, if we use electronic portfolios, monitor the accountable talk, detail the learning outcomes and accompanying rubrics, if only we implement best practices or focus more on the kids, all will be right with the world. We will become the heroes in the public fantasies spun around individual teachers elevated to iconic status.

Faced with the inexorability of the transformation I have mapped, what alternatives do we have? What can we do given the current state of education? At times the weight of the various practices and discourses constitutive of the transformation has seemed unbearable to me. I have struggled for psychic breathing room. It has often felt as if there were no outside to the state in which we find ourselves, and I have winced when I've heard teachers urged to "think outside the box." Is there an outside any more?

One reason I wanted to try to map the transformation was to see if in performing an immanent critique—boring from within—I could loosen the hold of the constituent discourses and practices, and then perhaps I could gain some breathing space. I am not sure that has happened. The discourses and practices of standards and accountability may at this point simply be too hegemonic. Testing continues, as does the outpouring of policy statements advancing the transformation. Certainly neoliberal policies are not going away, and as Fred Jameson has said, it is "easier to imagine an ecological holocaust than an alternative to capitalism." Education continues to be worth billions of dollars, so I don't expect that corporate interest will shrink. On the other hand, I do foresee continuing budget cuts in education, and the response seems to be more audit not less. The daily excoriations of educators continue in the press, as does Hollywood's churning out of films about lone, heroic teachers. In a recent five-to-four decision, the Supreme Court ruled that school officials in Louisville and Seattle could not try to integrate the schools, but segregation continues out of public consciousness. And finally, I am not optimistic that educators will renounce their attachment to psychology and the learning sciences, given that so many have been trained in these fields. So what is to be done?

Two years ago, I wrote an article entitled "What Is to Be Done in the Age of Accountability?" I had found in Zizek's reading of "Bartleby the Scrivener: A Tale of Wall Street" a possible response, but I am no longer comfortable with it. Nevertheless, it seems worth considering.

In *The Problems of Hegemony*, Simon Critchley asked, "[W]hat should our political strategy be?" (quoted in Zizek, 2006, 332). Critchley argued, following Kristeva (2002), for an intimate revolt, i.e. political action

beginning right where one is. Politics, for Critchley, seemed to require subjective invention and for him such invention required one to occupy the terrain on which one stood. I took this to mean simply that those of us working in K–12 public schools and teacher education programs should focus on the immediately local and essentially live the revolution. This would mean, assuming one found the current state of education as unbearable as I have, that one might organize resistance.

In 2005 I had stepped down as assistant dean at Brooklyn College's School of Education. I had in that position, along with another assistant dean, overseen the school's successful accreditation by NCATE. We were the only school or department of education in the City University of New York to pass unconditionally. I took no pride in that, but I had worked hard fulfilling my responsibilities, and I was fully aware how complicit I had been in implementing the reforms NCATE required. I simply offered faculty "a spoonful of sugar to help the medicine go down," and they were appreciative.

Several months after we passed NCATE, the President of Brooklyn College hosted a party for the faculty to celebrate our achievement. Not invited were the secretaries and support staff in the School of Education, individuals who had done so much to help us gain accreditation. I was shocked. I wrote a note to the President and Provost expressing my dismay. I closed the note by saying that their decision did not seem consistent with social justice, a central part of our school's mission statement and conceptual framework. I closed by writing, "At this point such a hollow celebration only deepens my own sense of the intellectual and ethical hollowness of this entire accreditation process." I suspect, looking back, that my outrage had something to do with the knowledge of and guilt about how much I'd been complicit in the whole enterprise

I sent the letter and then sent a copy to a colleague, who unbeknownst to me, at least on a conscious level, passed it to others with the intent of provoking action. At first there appeared a groundswell of support for boycotting the event. Urgent emails and meetings in the hallways occurred. Soon discussions of strategy apparently surfaced. Perhaps it was not strategic to make a stand on such an issue. Perhaps it would be unfair to ask untenured faculty to boycott. Perhaps, if there were a boycott, the capital gained from passing NCATE would be squandered. Then suddenly the discussion was displaced into whether such a boycott would humiliate the dean or would exacerbate old divisions in the school. The upshot was that all but four faculty members attended. Certainly a boycott, which I had not intended in the first place, would be consistent with Critchley's and Kristeva's calls for local political action. The problem is that the local is often much more threatening. It is easier to march at a rally or send money to a cause or urge one's own students to take action in their place of work than it is to take the risk that intimate, political action of this sort

requires. The upshot of the incident was that the School of Education faculty and administration moved on, resigned to the fact that nothing can be done and passively preparing for the next NCATE visit.

Alan Badiou (2005) offers an alternative to such local resistance, one that Slavoj Zizek elaborates on in his book *The Parallax View*. Badiou suggests that any resistant action at this historical moment, whether local, such as the example I just gave, or more conventional, such as marching in a protest, only sustains the system. Zizek writes:

> Against Critchley's call for modest local "practical" action, I am therefore tempted to cite Badiou's provocative thesis [that] "it is better" to do nothing than to engage in localized acts whose ultimate function is to make the system run more smoothly . . . The threat today is not passivity but pseudo-activity, the urge "to be active" to "participate" to mask the Nothingness of what goes on. People intervene all the time, . . . : academics participate in meaningless "debates" and so forth, and the truly difficult thing is to step back, to withdraw from all this.
>
> (2006, 334)

For Zizek, Critchley's position also "functions as an ideal supplement to the Third Way" or to centrist politics. It is a revolt, he writes, "which poses no effective threat, since it endorses in advance the logic of hysterical provocation, bombarding the Power with 'impossible' demands" (334).

In terms of the current state of education, such provocations would consist, for example, of demanding that a college president reject a particular accreditation agency, or refusing to administer the Regents, or petitioning New York State to change its accreditation standards. Perhaps the most apposite example of this supplement to centrist politics would be organizing a group to attend and "make their voices heard" at one of the state-sponsored meetings, held to get feedback from educators about some new mandate, or mobilizing the faculty to march on NCATE headquarters.

Zizek is taken with Badiou's critique and program of inaction but he adds a slight twist. Zizek calls for the response given by Bartleby: "I would prefer not to." Unlike Hardt and Negri (2000), who see Bartleby's response as a "No!" to Empire and as a prelude to collective construction of the new, Zizek reads Bartleby's "I would prefer not to" not as saying "I don't want to," but rather as an absolute state of withdrawal from the entire contents of his surroundings. For Zizek this equates to a temporary refusal of the "forms of resistance which help the system reproduce itself by ensuring our participation in it" (384). The refusal is "the formal gesture of refusal as such" (384).

But what would such a refusal mean in terms of the current state of education and our own local position within it? At the time I wrote "What Is to Be Done in the Age of Accountability?" I understood such a refusal as not only a refusal, for example, to write outcomes on a syllabus or participate in NCATE, or use any of the audit practices so pervasive. I understood it not just as a refusal to fill out the numerous forms required of high school teachers. Rather it also seemed to constitute a refusal to engage in any form of resistance that might help the system to perpetuate itself. Thus, for example, it meant refusing to assume that particular teaching practices were causally linked to learning, or to subscribe to the idea of learning styles, or to assume that relevance is easily determined, that social justice is transparently obvious, that diversity, meaning tolerance of social identities, necessarily opens up thinking, that culture and cultural sensitivity are unproblematic, that critical pedagogy and cultural studies escape their own ideological biases, that we know what a good teacher is, that we know for sure that the banking method is bad, that we know the causes of racism and how to end it and bring about social justice, and that reflective practice makes for good teaching.

I read Zizek as calling for a withdrawal from an entire field, which in our case is constituted by both the discourses held together by standards and accountability and the discourses that purport to resist these. I read it as meaning that I needed to withdraw in some fundamental way from the current educational landscape. As I understood it, that did not mean leaving the field or taking up a kind of Buddhist detachment, both of which would in fact have sustained the educational reforms. Zizek was not calling for a contemplative moment.

What I understood him to be calling for was a move to live in the gaps between the transformation and the critiques of that order. That required a kind of decathecting from the answers and certainty offered by both the educational establishment and its critics. I went on in the paper to enumerate the various withdrawals involved. In some ways I took my own advice. I continued to work at the Bushwick School for Social Justice, and teach, but I also started to direct a program not connected to the School of Education.

Since I wrote that paper, I have come to see Bartleby's passive resistance, his No! in a different light. I see it now as an important step, but not a permanent one. I believe now that our work is to articulate alternatives to the current state of education. Bartleby's refusal can allow us to withdraw our emotional investments in both extant educational reforms and critiques of them, so that possibly, and only possibly, our alternative is not overdetermined by the transformation it rejects.

I needed to write this book, not only as a way to gain some breathing space but also as a way to disgorge the years I had spent immersed in, complicit with, and overwhelmed by audit. I no longer feel quite so

suffocated. I also believe that there are alternatives to the discourses and practices of accountability, but at this point I also think any move to offer an alternative must be tentative. The danger is that the alternative itself may be linked to the very discourses to which it is posed as an alternative.

The title I chose for this book focused on the transformation I have tried to map. We have come to a point where we have been seduced into teaching by numbers. I wanted to expose the ways that happened. I hope that by clearing a space we may now be able to turn to alternatives, but we must first be willing to let go of our attachments to practices and discourses that participate, even from an ostensibly opposing position, in the logics, language, and practices of standards and accountability.

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