The Context and Call for Continuous Improvement

<div style="text-align: right">**1**</div>

The future ain't what it used to be.

—Yogi Berra, 2001

A relationship, I think, is like a shark. You know? It has to constantly move forward or it dies. And I think what we have on our hands is a dead shark.

—Woody Allen as Alvie Singer in *Annie Hall,* 1977

There are at least two ways to interpret Yogi Berra's famous aphorism about the future. One is the way that the iconic New York Yankees catcher himself explained it, "Honestly, I don't think much about the future—not like I used to—but just enjoy life. It's too short to worry about" (p. 162). Another way to interpret the aphorism is that the future we expect is not likely to be the future we will experience. In relatively stable times, our expectations for the future—derived from presumptions past and present—stand a decent chance of coming to fruition. But in turbulent, rapidly changing times, those chances can be long shots. Thus, the aphorism can be understood to warn us that the future we experience ain't likely to be the one we expect it to be.

The latter interpretation lies at the heart of a current argument about schools. There are three basic parts to this argument. First, these are rapidly changing and unpredictable times. Populations, economies, and employment; communications and technologies; geographic boundaries; the nature of communities and social relationships; civic, social, and religious institutions—all are changing in unprecedented and often contested ways. To many, these changes are threatening and destabilizing. [1]

Old beliefs and assumptions that once guided, governed, and gave meaning no longer work so well. Ambiguity is ascendant. The future will be defined by rapid change, systemic uncertainty,

even chaos. Where it will all lead, no one really knows. Former U.S. Secretary of Defense Donald Rumsfeld's (2002) now infamous statement about the early stages of the war in Iraq makes the point well:

> [T]here are known knowns; there are things we know we know. We also know there are known unknowns; that is to say, we know there are some things we do not know. But there are also unknown unknowns, the ones we don't know we don't know. . . . [I]t is the latter category that tend (sic) to be the difficult ones (sic).

So too does the remark he made a year later to deflect criticism that the Bush administration lacked an effective reconstruction plan for "post-war" Iraq, "Stuff happens!" (Rumsfeld, 2003).

The second part of the argument is that schools are not prepared for such a future. Most of today's schools are yesterday's schools, built for purposes and contexts disappearing or gone. They are oriented toward the past, not the future. They are built to promote stability and to be stable themselves, not to change on their own or to be changed very easily by others. They are not oriented or organized for the types and magnitudes of change that are occurring now and that will likely occur in the future. In short, they are ill suited to a future that ain't what it used to be.

This leads to the third part of the argument. Schools must change in fundamental ways in order to perform effectively in this future. They must become more flexible and adaptive, better able to deal with increasing complexity and ambiguity, more proactive than reactive, and reoriented toward different objectives. As change accelerates around them and as demands on them intensify, schools must begin to move and keep moving. They must improve and keep improving. Otherwise, the argument concludes, they will become like Woody Allen's shark—if not dead, then moribund and largely ineffectual.

And thus the call for schools to take on organizational properties and adopt the processes of continuous improvement. Continuous improvement is a concept that has a long history and a variety of meanings. The definitions, the logic, and the history of continuous improvement are explored in Chapter 2. This first chapter sets the stage. It examines the context and the call for continuous improvement by exploring several contexts or "terrains" of schooling that are changing dramatically and will likely continue to do so. In particular, I look at growing demands for schools to promote new types of learning, to improve performance continually, and to be more accountable.[2] From this discussion, I turn to the challenges these changes pose to schools and to an analysis of schools' current capacity to respond. And then, I introduce the call for continuous improvement.

SHIFTING TERRAINS OF SCHOOLING

The contexts in which schools operate are changing dramatically. William L. Boyd (2003) observed that we are in the midst of broad social, political, economic, and demographic transformations that portend crisis for public schools as we know them now. He saw schools as having entered a period of "trial" that will challenge them at their core. He argued that a "paradigm shift" has been developing in the United States since the 1980s:

This shift is marked by a change in focus from inputs *to* the system to the outcomes and accountability *of* the system, by a shift in the attitudes of key constituency groups, and by a critical reexamination of what public education means and how it can or should be delivered. (p. 7)

It is unclear where such changes will lead. At minimum, they will create a future for schools that is more complex, more contested, and more demanding. As Boyd (2003) saw it, these changes may constitute an "unusual convergence" of institutional forces that not only makes "deep changes" in schools possible but perhaps inevitable. What transformed schools might look like and how transformed schools might function in this future is not particularly clear. This raises the very difficult question of how schools might organize themselves and operate now for a future that is certain to be uncertain and a future in which schools' form and function are part of the unknown.

There are several areas in which changes are occurring that are especially salient to schools. These include (a) jobs for which schools prepare students; (b) politics and control of education; (c) school funding; (d) the characteristics and conditions of children and youth; and (e) demands on schools for new learning, higher performance, and greater accountability. There are other areas that might be examined, but these represent particularly important dimensions of a future that schools will confront. I adopt the language of "shifting terrains" that Lugg, Bulkley, Firestone, & Garner (2002) used to analyze the increasingly complex, variable, and volatile contexts facing educational leaders at the beginning of the 21st century. Important to their analysis and to mine is the idea that these contexts are not independent or mutually exclusive. Instead, they constitute a dynamic, unpredictable, systemic environment in which schools must find ways to succeed.

The Transformation of Jobs

Jobs in the United States are undergoing fundamental transformation. There have been and will continue to be substantial changes in the nature of work and substantial shifts in employment among different sectors of the economy. These shifts are due to a number of broader changes that include but are not limited to the explosive development and expansion of computer, robotic, and information technologies; the rapid pace of globalization of markets and work; and deregulation of key industries (Lerman & Schmidt, 1999; Levy & Murnane, 2004).

Economists Frank Levy and Richard Murnane (2004) tell us that between 1969 and 1999, the proportion of adult workers in managerial or administrative positions and in professional occupations (e.g., teachers, lawyers, engineers) rose from 8% to 14% and from 10% to 13%, respectively. The proportion of adult workers holding service-related jobs (e.g., janitors, cafeteria workers, security guards) rose from 12% to 14%, and the proportion in sales-related jobs rose from 8% to 12%. At the same time, the proportion of adult workers in blue collar, manufacturing, and administrative support positions fell from 56% to 39%.

Some of these changes in percentages seem small, but they represent tens of millions of jobs. In more a more recent analysis, for example, Murnane (2009) found that between 2000 and 2006 the number of jobs in production and manufacturing fell by almost 2.1 million, and the number of jobs in office and administrative support fell by 1.6 million. At the same time, jobs in service

occupations, in the professions, and in management, business, and financial operations rose by 3.2 million, 2.5 million, and almost 1.3 million, respectively. Such changes will only continue.

The U.S. Bureau of Labor Statistics (2007) projects that the number of goods-producing jobs (e.g., manufacturing, mining, construction) will fall 3% between 2006 and 2016. This follows a 4% decline in these jobs that occurred between 1996 and 2006. At the same time, the number of service-producing jobs (e.g., trade, professional and business services, educational and health care services, etc.) will increase by 13%, adding to 17% growth in these jobs the previous decade.

These trends are reflected in the U.S. Bureau of Labor Statistics' (2007) projections of the industries that will experience the largest employment increases and declines between 2006 and 2016. The 10 industries with the largest projected employment increases are mostly professional, managerial, and heath service industries, and elementary through postsecondary education. The 10 industries with the largest projected job losses are in all areas of manufacturing (from apparel to computer equipment, to motor vehicle parts), crop production, and industries supporting print and wire communications. Overall, the number of manufacturing jobs is projected to fall 11% during this period.

Politics and Control

Lugg and her colleagues (2002) map a political terrain of schooling that is "increasingly marked by contests at the local, state, or national levels [over] resources, as well as over the scope and direction of public education" (p. 21). They observe that as a "contested public good," education involves a large and variable cast of stakeholders and constituencies competing to determine "who gets what, when, and how" (p. 21; see also Wirt & Kirst, 2005). This cast includes but is not limited to students, parents, educators and their unions, civic leadership, policy makers, and the general voting public. It also includes vast networks of suppliers and vendors, publishers, consultants, and other members of what Brian Rowan (2002) calls the "school improvement industry." Lugg and her colleagues contend that this terrain has become and will continue to become increasingly contested with regard to funding, governance and control, and even the general purposes of schooling. Contests will be waged not only on the basis of economic interests, exacerbated by growth in the privatization of public services and market-based reforms, but also ideology.

Boyd (2003) observed that in the past few years, efforts to cast the future direction for public education have come largely from outside the education system. More and more, recommendations for reform reflect "the thinking of corporate leaders, policy analysts, foundations, and critics of public education" (p. 1). Boyd argued that American public education is caught up in a "double crisis" of performance and legitimacy and this crisis is providing the foundation for a fundamental shift in control of schools. The performance crisis is based on critiques of low student performance and poor preparation of students for the needs of a global "knowledge-based 'information society'" (p. 3). The issue of performance is discussed in more detail later in this chapter. The legitimacy crisis comes from difficulties the educational system has had to accommodate the "demands of an increasingly diverse society divided by 'culture wars'" (p. 3).

Boyd (2003) also argued that as the country becomes more diverse, multicultural, and multilingual, "and at the same time more unequal," the "character, values, and legitimacy of our society and of its public school system are increasingly called into question" (p. 12). He observed that globalization is

forcing states to recognize growing pluralism and, as a result, tensions are mounting as public education's universalistic system tries to accommodate increasing diversity without betraying its "common school" history and philosophy. Boyd saw the politics of education intensifying as social change becomes more obvious and unavoidable. "Put another way," he concluded, "there is less social consensus, more 'pluribus' than 'unum,' and the 'one best system' approach to public education has collapsed along with the 'myth of the unitary community'" (p. 12).

Accompanying these changes in social and political dynamics have been shifts in the governance and control of public education. Lorraine McDonnell (2008) observes a clear evolution of governance relationships characterized by growing centralization of control at federal and state levels and greater devolution of responsibility for compliance to the local level. This shift is perhaps best illustrated in the growth of state standards-based accountability reforms of the 1990s, culminating in 2001 with the *No Child Left Behind* reauthorization of Title I of the federal Elementary and Secondary Education Act. These reforms raise the bar for local school performance and outcomes and introduce sanctions for non-compliance. At the same time they leave it to local districts to find the means and resources to comply. McDonnell observes that with increasing centralization has come greater fragmentation. There are larger numbers of actors with a greater range of economic agendas and political stakes that represent a growth of potential sources of external political influence. Such expansion adds to the fragmentation of control but also increases the prospects of growth in total external influence over public schools.

Shifts in and expansion of control are manifest in other ways too. Boyd (2003) observed that the historical separation of educational and municipal governance in big cities is beginning to disappear as more and more districts are moving toward mayoral control. Superintendents are being replaced with greater frequency not by other educators but by people outside of education, including city government officials, military leaders, and corporate executives. Charter schools and choice and voucher plans are growing in number while home schooling is flourishing. Boyd also forecast the development of more online learning and "cyber-schools." Each of these developments contributes to the "externalization" and fragmentation of influence and control over schools to a wider array of sources.

School Funding

Total revenue for public elementary and secondary education in the U.S. schools has been increasing steadily since the mid-1980s (Education Finance Statistics Center, 2005b). Between 1985 and 1995, total revenue, which includes all revenue received from federal, state, and local sources, increased almost 40% from $249 billion to $348 billion. Between 1995 and 2005, total revenue rose another 40% to nearly $488 billion.

The vast majority of total school revenue comes from local and state sources. A relatively small percentage comes from the federal government. Overall, the federal share has gradually increased since 1990 (Zhou, 2008). The increase since 2001 may be due in part to additional revenues associated with *No Child Left Behind.* In fiscal year 2006, 90.9% of all revenue came from the state and local levels, and 9.1% came from the federal level. Trends and variations in federal, state, and local "shares" of public school funding are perhaps best seen at the regional level (Education Finance Statistics Center, 2005a). Across different regions of the country, the federal share has varied by as much as four

percentage points. Trends in state and local shares vary even more across regions. These differences are indicative of a number of broader demographic and economic changes occurring across the nation. They suggest a growing need in some regions for states to assume a larger share of school districts' general operating expenses as districts experience difficulty raising revenues from property taxes and other local sources (Lugg et al., 2002). But as discussed later, states are experiencing their own economic troubles and may find it increasingly difficult to "make up the difference."

Perhaps a more meaningful way to assess changes in school funding is trends in per pupil revenue. According to the Education Finance Statistics Center (2005b), average revenue per pupil has risen since 1985 but at a smaller rate than total revenue. Between 1985 and 1995, revenue per pupil rose 24% from $6,348 to $7,894. Between 1995 and 2005 it rose another 27% to $9,995. Yet wide disparities in per pupil revenue can be seen at the state and district levels (Hill & Johnson, 2005; Zhou & Gaviola, 2007). In 2005, for example, median school district revenues at the state level ranged from $6,823 to $17,865 per pupil and district-level per pupil revenues ranged from $7,021 to $19,680 (Zhou & Gaviola, 2007). These disparities are likely to continue well into the future if not addressed.

District-level funding can vary tremendously, even within the same states, depending on local districts' political will and "ability to pay." Because district-level revenues are tied closely to property values and other sources of local taxation, low-income communities are often at a tremendous disadvantage. Jason Hill and Frank Johnson (2005) found that in 2003, differences between highest- and lowest-funded districts exceeded 200% in five states. They found differences between 100 and 200% in another 19 states.

Several studies have documented wide gaps in funding among school districts serving large and small concentrations of low-income students. In one recent national analysis, Carmen Arroyo (2008) found that districts serving the highest concentrations of low-income students received, on average, $938 less per pupil in state and local revenues than districts serving the lowest concentrations of low-income students, a gap unchanged since 1999 (adjusted for inflation). When "commonly used" adjustments of costs of educating low-income students were applied, Arroyo found that the gap increased to $1,532 per pupil. With this adjustment applied, the nationwide funding gap between districts serving the highest and lowest concentrations of minority students was $1,275 per pupil. This study also found substantial variation among states in per-pupil funding gaps between high- and low-poverty districts.[3]

A recent study from the Center on Budget and Policy Priorities (McNichol & Lav, 2008) suggests that despite trends in revenue growth, there is likely to be trouble ahead to fund education adequately and to address funding inequities such as those described before. This study identified 29 states facing revenue shortfalls for fiscal year 2009 and three more states expecting to experience shortfalls in fiscal year 2010. These shortfalls are attributed primarily to loss of tax revenue and growth in spending obligations. Local property tax revenues, once a relatively stable source of revenue for school funding, are now expected to decline with long-term structural problems in housing markets. Local governments and school districts will be looking for more and more to states to help relieve the squeeze on general operating and education budgets.

This will place additional pressure on states that are wrestling with their own shortfalls. According to the Center on Budget and Policy Priorities (McNichol & Lav, 2008), as many as 34 states have begun to cut "real per-pupil aid" to elementary and secondary school districts. This has resulted in districts having to raise local fees, shorten school days, lay off personnel, and reduce

student transportation. States have also begun to use funds that would have gone in the past to education to cover other costs such as health care for state employees and entitlement programs such as state Medicare. In some states, health costs now surpass education costs for the first time. Furthermore, notes the Center's report, "Many states never recovered from the fiscal crisis in the early part of the decade. This fact heightens the potential impact on public services of the deficits states are now projecting" (p. 4). In the future, earlier reductions in state education funding are not likely to be made up. Indeed, reductions are likely to continue. The report ends with a rather dismal conclusion that states have few options to avoid further reductions. Their "rainy day funds" and other reserves are depleted, and public service spending has been cut substantially, leaving tax increases as the most viable financial option but the least viable political option available to them.

It is important to note that these studies of school funding were conducted before the recession began at the end of 2008.

Characteristics and Conditions of Children and Youth

Substantial changes are also occurring in the characteristics and conditions of children and youth. The population schools serve is growing larger and is becoming more diverse racially, ethnically, culturally, and economically. Large proportions of children come to school without early educational experiences and without particular academic readiness skills. Moreover, the systems of support available to many children and youth are changing.

The U.S. Bureau of the Census (2004) predicts that between 2000 and 2050, the population from birth through age four will increase by 46%, and the population between the ages of 5 and 19 years of age will increase by 32%. There will be 28.6 million more children and youth below the age of 20 in 2050 than in 2000. Increases can already be seen in school enrollments (Hussar & Bailey, 2007). Between 1991 and 2004, the number of students enrolled in pre-kindergarten through 12th grade rose 15% from 47.7 million to 54.9 million students. Enrollment is expected to increase another 9% between 2004 and 2016 to 59.8 million students.

School enrollments will continue to become more racially and ethnically diverse (Orfield & Lee, 2007). Between 1968 and 2005, the number of white public school students fell nearly 20% while the number of African American students rose 33%, and the number of Latino students rose 380%. In 2005, public school enrollment across the United States was 57% white, 17% African American, 20% Latino, 5% Asian American, and 1% American Indian. Growth in racial and ethnic diversity has occurred at different rates in different regions of the country with the west and the south experiencing the greatest increases.

Growth in diversity has occurred throughout the country. Between 1993 and 2002, minority proportions of public school enrollments in central cities rose from 56% to 65%. In the urban fringe, it rose from 31% to 37%. In towns it rose from 22% to 30% and in rural areas it rose from 17% to 21% (Kewal Ramani, Gilbertson, Fox, & Provasnik, 2007). In 2007, one in 10 of the nation's 3,141 counties had a population that was more than 50% minority, an increase in "majority-minority" counties from the year before (U.S. Bureau of the Census, 2007a).

The U.S. Department of Labor (1999) projects that by 2050, immigration will account for almost two-thirds of the nation's population growth. Net migration from abroad—immigration less emigration—added 5.5 million persons to the population between 1990 and 1997 and another

4.1 million between 1998 and 2002 (U.S. Citizenship and Immigration Services, 1998). In 2005, 4.3% of children under the age of 18 were foreign born (Kewal Ramani et al., 2007). That year, almost 11% of Latino children were foreign born as were 23% of Asian American children.

With increasing immigration and ethnic diversity comes greater language diversity. In 2004, almost 20% of children 5 to 17 years of age spoke a language other than English at home (U.S. Bureau of the Census, 2007b). About two-thirds of all Latino and Asian American children spoke a language other than English at home. Among children who speak Spanish at home, 28% speak English with difficulty (National Center for Education Statistics, 2007). Among children who speak Indo-European and Asian and/or Pacific Islander languages at home, 21% and 28% respectively speak English with difficulty.

The proportion of children living in poverty has increased in recent years with growing differences among racial and ethnic groups. Between 2001 and 2005, the proportion of children under the age of 18 living in poverty rose from 15.8% to 17.1% (U.S. Bureau of the Census, 2007b). The proportion of white children living in poverty rose from 12.8% to 13.9% while the proportion of African American children living in poverty rose from 20.0% to 34.2%. Across this period, approximately 27% of Latino children lived in poverty. In 2005, 41% of all American 4th graders were eligible for the federal government's free or reduced-price lunch program (Kewal Ramani et al., 2007). About 24% of white 4th graders but 70% of African American and 73% of Latino 4th graders were eligible that year.

Family structures continue to change. According to the U.S. Bureau of the Census (2007b, 2009), smaller proportions of children under the age of 18 are living with both parents. Between 1990 and 2006, the proportion of children living with both parents fell from 73% to 67%. Proportions of children living with only their mothers increased from 21% to 23% and with only their fathers from 3% to almost 5%, as did the proportion of children living with neither parent. There are substantial differences in family structure among children of different races and ethnicities. In 2006, 74% of white children, 66% of Latino children, but only 35% of African American children lived with both parents. Eighteen percent of white children lived with their mothers compared to nearly 51% of African American children. Children in female-headed households are more likely to live in poverty than children in two-parent households (Kewal Ramini et al., 2007). White children are eight times more likely to live in poverty if they live in female-headed households than in two-parent households. African American children and Hispanic children are, respectively, four times and about three times more likely to live in poverty if they live in female-headed than in two-parent households.

Growing proportions of young children are involved in early educational experiences (U.S. Bureau of the Census, 2007b). Between 1970 and 2005, the proportion of young children enrolled in preprimary programs (e.g., nursery school, kindergarten) rose considerably. Still, substantial proportions of young children across the country do not have these experiences. In 2005, about 35% of white children, 38% of African American children, and 44% of Latino children were not enrolled in such programs. According to the U.S. Bureau of the Census (2007b), substantial proportions of children between three and five years of age have not developed certain "school readiness skills." About 25% of children in this age group cannot recognize letters, and about 40% cannot count to 20 or higher or write their names. Almost 30% have not begun to read or cannot pretend to read storybooks. Sixty percent of children lack three or more of these skills. White children are generally "better prepared" for school in terms of these indicators than African American or Latino children. Moreover

the readiness skills of children living in poverty are less well developed than the skills of children not living in poverty.

Between 1995 and 2005, the number of children and youth diagnosed with physical and mental disabilities increased 20% from 5.1 to 6.1 million (U.S. Bureau of the Census, 2007b). The largest proportions, between 45% and 51%, have specific learning disabilities. About 20% have speech or language impairments. And in 2007, 8.1 million or 11% of children in the United States under the age of 17 had no health insurance, and 4.4 million or 6% had no regular source of health care (Federal Interagency Forum on Child and Family Statistics, 2009).

Demands on Schools

In addition to these changes in jobs, politics, control, funding, and characteristics and conditions of children and youth, demands on schools are increasing. There are demands to promote new types of learning. There are demands for improving levels of performance and outcomes. And there are demands for greater accountability. These demands are intensifying and they are not completely in sync. There are tensions and contradictions among them that create additional challenges for schools.

New Learning

In the future, schools will need to change course from promoting student learning that might have been appropriate in the past to promote learning that will be required in the future. In the introduction to its seminal report *How People Learn,* the National Research Council (2000) laid out the change this way:

> In the early part of the twentieth century, education focused on the acquisition of literacy skills: simple reading, writing, and calculating. It was not the general rule for educational systems to train people to think and read critically, to express themselves clearly and persuasively, to solve complex problems in sciences and mathematics. Now, . . . these aspects of high literacy are required of almost everyone in order to successfully negotiate the complexities of contemporary life. The skill demands for work have increased dramatically, as has the need for organizations and workers to change in response to competitive workplace pressures. Thoughtful participation in the democratic process has also become increasingly complicated as the locus of attention has shifted from local to national and global concerns. . . . Above all, information and knowledge are growing at a far more rapid rate than ever before in the history of humankind. . . . More than ever, the sheer magnitude of human knowledge renders its coverage by education an impossibility; rather, the goal of education is better conceived as helping students develop the intellectual tools and learning strategies needed to acquire the knowledge that allows people to think productively . . . [to become] self-sustaining, lifelong learners. (pp. 4–5)

This imperative for new learning is echoed by many others. According to Robert Lerman and Stefanie Schmidt (1999), most economic analysts believe that employers will seek different skills than in the past. They observe that changes in the occupational and industrial structures of the

economy that took place between 1960 and the mid-1980s led to a growth in demand for cognitive and interpersonal skills and a decline in demand for motor skills. They report the findings of a recent survey of firms in major U.S. metropolitan areas that among lower-level workers holding jobs that do not require a college education, 70% must work directly with customers, 61% must read and write paragraphs, 65% must perform arithmetic operations, and 51% must use computers.

Levy and Murnane (2004) argue that the general nature of work has been shifting for some time from routine to nonroutine. They report that between 1969 and 1999, the number of jobs requiring routine manual tasks—those organized around *a priori* rules—declined 3%. The number of jobs requiring routine cognitive tasks declined nearly 8%. On the other hand, jobs requiring nonroutine tasks increased substantially. The number of jobs requiring expert thinking—solving problems for which there are no rule-based solutions—rose 14% while the number of jobs calling for complex communication—for example, interactions with other people to acquire information, explain it, and persuade them of its implications for action—rose 9%.

Levy and Murnane (2004) also maintain that the growth of computer and information technologies has had its most negative impact on blue collar and clerical workers in rule-based jobs. This "bias" against "less-skilled" workers will continue, they predict, and will expand to other jobs with large rules-based components, such as tax preparation and computer programming. They suspect that "the major consequence of computerization will not be mass unemployment but a continued decline in the demand for moderately skilled and less skilled labor" (p. 152). Job growth will be greatest in higher-skill occupations in which computers complement expert thinking and complex communication.

Consistent with the National Research Council's (2000) statement, Thomas Friedman (2006) argues in his best-selling book *The World Is Flat* that young people will need to develop new sets of skills and attitudes to prosper in the future. The first and foremost is the ability to learn how to learn, "to constantly absorb and teach oneself new ways of doing old things or new ways of doing new things" (p. 302). While one's intelligence quotient (IQ) will still matter, Friedman believes that the importance of continuous learning will make curiosity and a passion for learning imperative. Having good "people skills" will be even more important in the future. Friedman contends that "there are going to be a whole slew of new middle jobs that involve personalized, high-touch interactions with other human beings—because it is precisely those personalized high-touch interactions that can never be outsourced or automated and are almost always necessary at some point in the value chain" (p. 306). Finally, the future will demand substantially greater development of "right-brain" capacity such as "forging relationships rather that executing transactions, taking novel challenges instead of solving routine problems, and synthesizing the big picture rather than analyzing a single component" (p. 307). Jobs that can be reduced to a set of "rules, routines, and instructions" are migrating overseas to less expensive labor markets and are being supplanted by new technologies. Friedman concludes that if workers in other countries can do such "left-brain work" as well and for less money, "we in the United States must do right-brain work better" (p. 308).

Others have argued for the need to expand learning beyond that required for employment. Levy and Murnane (2004) contend that in addition to developing new skills that will be required for the labor market of the future, it will be imperative to prepare young people for the "challenging political time" that will accompany economic and occupational changes and the redistribution of wages

that will follow. The skills needed to excel at expert thinking and complex communication in work are skills that will also be important for engaging myriad social and political issues that lie ahead. They conclude, "The skills critical to expert thinking and complex communication are just as important to meeting [social and political] goals as they are to earning a living in a work world filled with computers" (p. 156).

Psychologist Howard Gardner (2006) is even more explicit. "The world of the future," he argues, "will demand capacities that until now have been mere options" (p. 2). Gardner speaks of the need to cultivate five minds for the future. The first is the *disciplined mind*. It will be important for persons to master at least one distinctive mode of thinking, of cognition associated with a particular scholarly field or discipline, craft, or profession. The second, the *synthesizing mind*, allows one to take information from disparate sources, understand and evaluate it objectively, and put that information together in ways that make sense to the person and to others. The capacity to synthesize will become even more crucial as information is produced and accumulates at "dizzying" rates. The third, the *creating mind*, builds on discipline and synthesis to "break new ground." This mind of the future "puts forth new ideas, poses unfamiliar questions, conjures up fresh ways of thinking, arrives at unexpected answers . . ." (p. 3). The fourth, the *respectful mind*, recognizes that now and in the future, one can no longer remain socially isolated. It "notes and welcomes differences between human individuals and between human groups, tries to understand these 'others,' and seeks to work effectively with them . . ." (p. 3). The fifth, the *ethical mind*, considers the needs and desires of self and society. This mind conceptualizes "how workers can serve purposes beyond self-interest and how citizens can work unselfishly to improve the lot of all" (p. 3).

Each of these five minds has been important historically and each, Gardner argues, will be more important in the future:

> Whatever their importance in times past, these five minds are likely to be crucial in a world marked by the hegemony of science and technology, global transmission of huge amounts of information, handling of routine tasks by computers and robots, and ever increasing contacts of all sorts between diverse populations. Those who succeed in cultivating the pentad of minds are most likely to thrive. (p. 163)

With these minds, a person will be equipped to engage not only the expected but also the unexpected. Without them a person will be "at the mercy of forces that he or she can't understand, let alone control" (p. 2).

Higher Performance and Outcomes

Demands are also increasing for schools to perform more effectively and to achieve better outcomes for greater numbers of students. In short, schools are being asked to do more and do better without commensurate increases in resources (often with fewer resources). While assessing the overall quality and performance of schools is not a simple matter and while that assessment is politically contentious (e.g., Berliner & Biddle, 1996), these demands nevertheless exist and are coming from a larger number and a wider range of sources. Demands for higher performance are related to but can also be seen as different from demands for new learning. That is, independent of specific

learning sought, schools are seen generally as under-performing organizations that fail to serve all their students well.

Recent demands for improved performance and outcomes often begin with critiques of the preparedness of students for jobs, of trends in student academic achievement (particularly as measured by standardized test scores), and of the academic performance of American students in international comparisons.[4] The basic argument is that current levels of school performance and outcomes are unsatisfactory and current levels will be even more unsatisfactory in the future. An increasingly complex, contentious, and changing world requires ever-increasing levels of performance from schools if the nation is to remain economically competitive and preserve if not improve its global standing.[5]

Demands for higher performance and outcomes also arise from critiques that schools are working much better for some students than for others. Recent data from the National Assessment of Educational Progress (NAEP) show that while there has been some long-term progress (Perie, Moran, & Lutkus, 2005), substantial gaps exist in the academic achievement of white, African American, and Hispanic students (Planty et al., 2008; see also Hedges & Nowell, 1999). Achievement of students in high-poverty public schools lags substantially behind the achievement of students in low-poverty schools. Students in central-city public schools tend to achieve at significantly lower rates than students in schools in rural areas and the urban fringe (National Center for Education Statistics, 2006). While dropout rates have been declining nationally since 1972, the dropout rate for African American students is almost twice that of white students (Planty et al., 2008). The dropout rate for Hispanic students is almost twice that of African American students. Demands for addressing the under performance of low-income and minority students reflect equity and social justice concerns. Boyd (2003) observed that as the general population becomes more diverse and as minority populations constitute larger proportions of the workforce, the equity agenda and the economic agenda may converge into a more unified set of demands for schools to serve all students well.

There are other factors that portend a future of increasing demands on schools to perform better. The introduction of market-based reforms, particularly choice policy, the growing school improvement industry, and increasing privatization of school services embody demands for ever-increasing performance (see Boyd, 2003; McDonnell, 2008; Rowan, 2002). These demands are implicit (or explicit) in the threats that competition poses of losing clients—students—and the funding attached to them, losing control, and losing opportunities for "doing business." And several political phenomena all but guarantee the continuation, even the intensification of demands on schools, no matter how well they are performing. These phenomena manifest themselves in many ways, including the familiar sound bite of election-year politics: "If I'm elected, I will demand more from the public schools."

Some time ago, Anthony Downs (1972) observed that issues—such as education—keep coming back to the political agenda because they never get solved. Progress is made, perhaps, but satisfactory resolution is not achieved. Pointing to what he called the "issue-attention cycle," he argued that multiple issues compete for public and political attention and that our attention to any particular issue tends to be relatively short. Attention never stays focused on large, complex, difficult-to-solve issues very long. Issues that command attention at any given moment are likely to recede as other issues are perceived as more interesting or pressing. Attention returns to earlier issues as they seem more interesting and pressing again and as current issues lose salience.

Some years later, David Tyack (1991) pointed to lags between political and policy cycles and practice cycles (see also Tyack & Cuban, 1995). The former tend to be much shorter than the latter, meaning that improvement in practice (e.g., school performance and outcomes) almost always lags behind the political demand for it. Thus, the demand will never go away. There will be more recurrent "policy talk" about change than actual change in practice. But as Tyack reminds us, education policy talk is not simply about school improvement. It constitutes an "arena" within which enduring arguments about deep social values and social futures take place. As these arguments are unlikely to be resolved (see Cuban, 1990), so too will demands continue for schools to do better.

Yet another reason that demands on schools will likely continue is the political need to "keep problems alive." According to Sandra Stein (2004), problems are often perpetuated in order to attract support—both political and financial—to preserve individual and group influence, particular political positions, and specific policies and programs (see also Kingdon, 1995). Thus, even as progress is made, the political system provides incentives to continuously "move the goalposts." If a problem gets solved, the need for support goes away. And if support goes away, then positions, policies, programs, and influence are put at risk. All of this is to say that the political process itself is wired in such a way that demands for ever-better performance, and outcomes will continue to be an important part of the future of schools.

Greater Accountability

Demands for better performance and outcomes, as well as for effective and efficient use of scarce resources, are related to calls for schools to be ever more accountable. Boyd (2003) observed, "A race is on among political leaders to see who can promote the toughest testing and accountability programs for schools" (p. 3). Indeed, almost every state has implemented some education accountability agenda. And then there is *No Child Left Behind.* The focus is shifting from accountability for the use of inputs (e.g., funding) to the "production" of student outcomes (Lugg et al., 2002). The push for increased accountability is fueled by multiple agendas including dismantling of the current system of public education (Boyd, 2003). For whatever the range of agendas, one reason for the turn to accountability is what McDonnell (2008) sees as the failure of policy makers to find reforms that "penetrate the classroom" and lead to deep, long-lasting improvement in school performance and student outcomes. Being thwarted in other attempts to bring about change, policy makers have resorted to increased specification of outcomes and sanctions should they not be achieved. How those outcomes will be achieved is left largely to schools and school districts. It is a logic of, "We can't figure out how to improve you, so you do it yourselves. And if you don't, there will be consequences."

The push for greater accountability has followed two general tracks: mandates and sanctions, and market mechanisms (Hannaway & Woodroffe, 2003; Lugg et al., 2002). The former establish objectives and consequences. The latter seek to make schools more accountable to a broader range of non-educator stakeholders, including parents, through increased competition. Specific accountability programs and policies have proliferated, among them standards and high-stakes testing programs; school report cards and other public reports of school performance; ending student social promotion; plans for state takeovers and reconstitution of failing schools, sometimes under private, for-profit management; privatization of services; vouchers;

charters. School choice provisions, and support for home schooling. Even the changes discussed earlier that shift political control of schools from professional educators to parents, non-educators, and the private sector.

Such demands for school accountability are clearly illustrated by *No Child Left Behind.* This legislation places substantial emphasis on standards, standardized testing, disaggregation of data to monitor and promote the progress of different student groups, and sanctions for lack of improvement. It also combines standards-based accountability with market-based accountability by requiring that school districts provide students in failing schools additional support and if schools fail to improve the ability and means for students to choose to attend more academic-effective schools.

Ironically, the mechanisms for change evoked by *No Child Left Behind* and other accountability policies may not necessarily be conducive to schools' efforts to meet other demands placed upon them, particularly the demands for new learning. Several recent studies of how schools respond to external accountability imposed by high-stakes policies suggest just this (e.g., Darling-Hammond & Rustique-Forrester, 2005; Farkas & Duffett, 2008; Mintrop & Trujillo, 2007; see also McNeil, 2000). These studies illustrate how these policies can narrow the curriculum, shift instruction toward subject matter tested, and sacrifice subject matter that is not tested, that may be controversial, or that is difficult to teach (Schwartz, 2005). They can direct teachers to work more closely with some students than with others and to engage students in more review and test preparation and less instruction in new subject matter. For some students, particularly those in high-minority, low-achieving urban schools, instruction may be pushed in the direction of the most shallow and basic skills required for the greatest numbers of students to "pass" the test (Maudus & Clarke, 2001; Rhoten, Carnoy, Chabran, & Elmore, 2003). Even where tests purport to measure higher-order skills and analytic capacities (e.g., the ACT), there is evidence that so much time may be devoted to test preparation that instruction to develop the skills and capacities to be tested is sacrificed (e.g., Allensworth, Correa, & Ponisciak, 2008; Nagaoka & Roderick, 2004).

Current research on school choice provides little evidence that competitive, market-based mechanisms promote school improvement and innovation (e.g., Fiske & Ladd, 2000; Hess, 2003).[6] Some preliminary findings suggest that students in schools faced with competition may perform better on standardized tests than students in schools that do not face competition. Some schools may become more alert to the needs of their students, adopt new outreach practices, or adopt new programs that might appeal to students and families they might lose. However, there are few studies and little evidence that show that competition spurs innovation or more substantial improvements in school organization and educational processes. There is some evidence that competition can promote some undesirable side effects, especially an erosion of professional relationships that may be important to promote school improvement and innovation. According to Fiske and Ladd (2000), principals and teachers in some competitive contexts have become "less willing to share pedagogical and other ideas with their counterparts at schools with which their school is competing for students" (p. 9). As will be discussed in Chapter 2, such behavior is consistent with the general tendencies of organizations under external stress to become more protective and insular.

Demands for ever-better performance and outcomes and for greater accountability reveal a curious ambivalence about schools that is also likely to be part of the future. At the same time that schools are blamed for poor performance and outcomes and failing to prepare students adequately for the future, they are also asked to take on more and are entrusted as a primary solution to our

educational, economic, and social problems. There is a certain amount of irony that in this age of increasing expectations and accountability, schools find themselves left largely on their own to find the means—both the strategies and the resources—to improve and to achieve outcomes for which they are held accountable (Hargreaves, 2003; Hopkins, 2001). The logic can be viewed either as extremely optimistic about the ability of schools to improve on their own and to perform at higher levels or as deeply cynical.

MEETING THE CHALLENGES

These shifting terrains point to a future for schools of increasing complexity, change, and uncertainty, a future where it is not clear what schools should look like or do to be responsive and successful. As Gardner (2006) observes, schools are organized around educational goals and practices that may have been useful "for the world of the past, rather than for possible worlds of the future" (p. 17). He continues, "No one knows precisely how to fashion an education that will yield individuals who are disciplined, synthesizing, creative, respective, and ethical" (p. 19; see also Fink, 2000; Friedman, 2006). The question is whether schools are suited to succeed in this future. There are a several reasons to believe that most are not.

Most schools may find it difficult to succeed in a future of change and uncertainty because they are organized for stability. As Pallas, Natriello, & McDill (1995) note, they are organized as if their tasks were "predictable and routine" (p. 43). They are not organized, as Goh, Cousins, & Elliott (2006) suggest, for a future of continual adaptation to meet the needs and demands of their many stakeholders. Schools are organized as if they exist in stable environments. As a rule, they lack the capacity, the "competence," and some might say the inclination to be flexible, to adapt quickly, and to innovate (Hopkins, 2001; Timar & Kirp, 1987). Conventional mechanisms that might be employed to promote flexibility and change—such as teacher professional development, supervisory and evaluation practices, staff incentive and accountability systems, information gathering and analytic capacity, even leadership—are typically weak. The "grammar of schooling" or the "genetic codes" of school organization seem programmed for persistence, for reactive rather than proactive behavior, for defending rather than prospecting (Laughlin, 1991; March, 1991; O'Day, 2002; Tyack & Cuban, 1995).

Andy Hargreaves (2003) contends that even schools that are trying to move toward the future may be trapped by organizational structures and processes of the past. He describes the most future-oriented schools that he recently studied this way:

> [Even] schools that were preparing young people for the rapid change and complexity of a postmodern, postindustrial world were actually locked in modern—even pre-modern—principles of the factory and the monastery. Schools were still ruled by clocks and bells, periods and classes; children were grouped by age and taught memorizable knowledge via a standardized curriculum that was conventionally tested. Much of this conventional "modernism" of our school systems persists through the actions of professionals and bureaucrats who look inward to the custom of certain of their own expertise and routines rather than outward to the concerns of students, families and communities. (p. 21)

These tendencies are reinforced in a number of ways. Traditionally, principals have been rewarded by their central offices not so much for their own performance or the performance of their schools, but for the lack of disruption, the lack of problems, and the lack of change (Smylie & Crowson, 1993). As Robert Crowson and Van Cleve Morris (1991) observed in their study of central offices, the traditional stance of the superintendent has been, "I leave my principals alone to run their schools. But I tell them 'No surprises.'" (p. 207). This may be changing in the present period of increasing accountability for student outcomes to something like this, "I leave my principals alone to run their schools. But I tell them 'No surprises. And get your test scores up!'" Larry Cuban (1990) described a "grand bargain" struck between principals and teachers. Principals agree not to press teachers too hard to do things differently if teachers agree to provide support needed to maintain their schools' stability and credibility in the eyes of those who monitor and control them—parents, tax-paying citizens, and state and federal education agencies. There are also, as David Tyack (1974) has described them, the historical inclinations of school systems to develop and perpetuate the "one best system" as a means of centralized control over local school operation.

Yet another reason that schools may find it difficult to succeed in the future is the broad range of external forces that reinforce convention and suppress differentiation and innovation. One of these forces consists of the institutional demands on schools to reflect what is valued and expected of them by broader society. Such "deep structural" expectations dictate what schools should look like, how they should to operate, and what they are to achieve (Tye, 2000). It is the notion of the school system "encapsulated" by its external environment (Sarason, 1973, 1996). This phenomenon is related to institutional isomorphism—the idea that broad environmental norms and expectations press organizations to emulate each other to reflect those norms and expectations (Meyer & Rowan, 1978; DiMaggio & Powell, 1983; Scott, 2007). By reflecting them, organizations gain credibility, legitimacy, and the support of the environments on which they depend often for survival (Weiler, 1993; see also Shipps, Kahne, & Smylie, 1999). The net effect is more similarity than difference among organizations that perform "like" functions and more stability than change.

Cuban (1990) brings these ideas together in an argument that a primary reason why schools tend to "reform again, again, and again" but not progress very much is that they confront strong external pressures to comply with a limited number of historical expectations or scripts. These scripts relate to performing basic, traditional functions of maintaining order and producing students who appear to have learned what is valued and expected by the larger society. Change tends to occur within the "boundaries" of these scripts. Cuban contends that these scripts constrain more expansive change and innovation. School systems pay close attention to their policies and practices and how they "signal to the public that the schools are really schools and are doing what they are supposed to do" (p. 11). Departures are carefully "scrutinized" for potential risks.

Such institutional arguments assume that larger environments are generally stable, predictable, and very slow to change. They suggest that whole "institutional fields" must shift in order for organizations to change in more than incidental ways. But even as organizations are able to achieve "symbiotic" relationships with their environments through mostly small and incremental adjustments (e.g., Burke, 2008), these relationships can fall severely out of alignment either because organizations do not manage these relationships well or because institutional environments can indeed change in significant ways (Weick, 1993). As noted at the beginning of this chapter, Boyd (2003) believed that such significant changes in institutional fields may be happening now. The irony is that

the ways in which organizations tend to respond to extensive external pressure for change may not be particularly productive or conducive to improvement over time.

Long ago, James Thompson (1967) observed that when confronted with uncertainty and threats from their environments, organizations seek to reestablish certainty and ameliorate those threats in ways that are consistent with their core beliefs and functions, that is, their "technical cores." When uncertainty and threats intensify, organizations protect their cores, even when it means compromising their performance and productivity. When organizations experience extreme external stress from uncertainty or from other sources, their responses tend to be even more protective and potentially dysfunctional (March, 1994; Simon, 1986; Weick, 1993; see also O'Day, 2002). Organizations under extreme stress tend to adopt short-term, often symbolic strategies to ameliorate the stress. They tend to rely on current knowledge and assumptions that restrict information processing and learning. And they revert to familiar behaviors rather than engage in more risky behaviors of experimentation and innovation. Organizations under extreme stress tend to centralize and consolidate authority to increase their sense of internal stability and control. They abandon collective activity and revert to individual action. They "circle the wagons" and buffer themselves against external influences, which may cut off sources of support and limit access to solutions to problems.

Such responses can be seen in the findings of research discussed earlier on instructional responses to high-stakes testing policies and sanctions. They can also be seen in findings of other studies on school organizational responses to these policies. For example, these policies have been found to induce new sources of stress into teachers' relationships with students and parents and create disincentives for teachers to assume the risks of trying to change and presumably improve their classroom practice (e.g., Schwartz, 2005; Valli & Buese, 2007). They have been found to "crowd out" or "swamp" other types of reforms aimed at developing organizational and professional capacities that may be conducive to school improvement and performance in the long run (Lipman, 2002; O'Day, 2002; Smylie & Wenzel, 2003). A recent study of Chicago public elementary schools found that following the ascendance of centralized high-stakes testing, school probation, and "ending social promotion" policies was a systemic erosion of elements of social and organizational infrastructures of schools (Sporte, Smylie, Allensworth, & Miller, 2003). These elements included principal instructional leadership; teacher influence and inclusiveness of teachers and parents in decision making; teacher collaboration and their collective focus on and responsibility for student learning; teacher inclination toward innovation; teachers' commitment to their schools; and outreach to parents, parent involvement in school, and teacher-parent trust. Ironically, these organizational elements have been found in other research to be related positively to school effectiveness and instructional improvement (Sebring, Allensworth, Bryk, Easton, & Luppescu, 2006).

THE CALL FOR CONTINUOUS IMPROVEMENT

Because of their orientations and tendencies toward persistence and stability, most schools will find it difficult to meet the challenges of the future. It will be difficult for them to adapt effectively to changing conditions and to meet demands for new learning. It will be difficult for them to achieve greater performance and outcomes. This takes us to the call for schools to organize for "increasingly elusive certainty" (Pallas et al., 1995, p. 43), to adopt the organizational properties and the processes

of continuous improvement, to become continuously improving organizations. The call is summarized well in Nobel Prize winning scientist Kenneth Wilson and Bennett Daviss's (1994) argument about the need for redesigning education:

> To effect fundamental meaningful reforms, *all* educators must first be able to admit and agree that our traditional guiding vision of education is no longer relevant in a postindustrial, knowledge-based society. . . . Second, educators must accept, then build on, the model that the needs of a new society demand. Finally, when our schools do acknowledge education's new paradigm, they will need an ordered process of change that will enable them to exchange the patterns rooted in an antiquated structure of ideas for those needed to enact a new vision . . . a process of continuous, guided innovation. (pp. 20–21)

As was noted at the beginning of this chapter, the idea of continuous improvement is not new. I will present a brief history of the concept in Chapter 2. For now, it is useful to recall from the pages of Michael Fullan's (2005) recent book on leadership and long-term school success a challenge Donald Schön issued more than 20 years ago:

> We must become able not only to transform our institutions in response to changing situations and requirements; we must invest and develop institutions which act as "learning systems," that is to say, systems capable of bringing about their own continuing transformation. (pp. 15–16)

Fullan (2005) further develops Schön's idea in terms of his own concept of "sustainability." He defines sustainability as "the capacity of a system to engage in the complexities of continuous improvement consistent with deep values of human purpose" (p. ix). He argues that sustainability requires ongoing movement and improvement in the face of complex challenges that "keep arising" (p. 22; see also Koberg, 1986). Fullan contends that the strategies that may have brought success to a school in the past might not bring success in the future or help a school achieve greater performance or outcomes. And he argues that it is not just the outcome of continuous improvement that matters. It is also the development of the organizational system itself that can "display dynamic sustainability" (p. ix; see also Fullan, 1993). Andy Hargreaves and Dean Fink (2006) extend this idea further arguing that sustainability, or shall we say continuous improvement, should go beyond developing new organizational systems that "last" in rapidly changing and uncertain times. Those systems should have the capacity to develop "deep learning for all that spreads and lasts, in ways that . . . create positive benefit for others around us, now and in the future" (p. 17).

QUESTIONS FOR STUDY, REFLECTION, AND ACTION

1. What changes have you seen in the following terrains of your school and school district in the past five years? Ten years? What evidence can you point to that shows these changes?

   - Jobs and the nature of work for which students are to be prepared
   - Politics and control of education

- School funding
- The characteristics and conditions of children and youth
- Demands for new learning, higher performance, and accountability

2. What changes do you anticipate occurring in these terrains in the next five years? Ten years? On what evidence or rationale do you base your projections?

3. What challenges and opportunities do such projections pose for your school and school district to educating all students effectively in the years ahead?

4. How prepared is your school and school district to meet these challenges and opportunities? Explain your assessment, pointing to particular strengths and weaknesses of your school and district.

5. How does the issue of inertia manifest itself in your school and school district? What are the likely sources of it? What evidence is there of inertia and its sources? What might be done to confront and overcome it?