

WHY IS EDUCATIONAL ENTREPRENEURSHIP SO DIFFICULT?

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Abstract

Much of the recent literature on improving education in the United States seeks to promote entrepreneurship as the solution to raising educational quality and equity. But, the historical record documenting substantial and sustained departure from conventional educational practices is scant despite numerous attempts at entrepreneurial innovation. This paper contends that the challenge of entrepreneurially induced change is not due to a deficit of ideas or lack of volition on the part of those who seek change. Rather it is due to intrinsic features of the educational system which defy modification. These include not only such matters as a stubborn school culture, but also the very role of schools as organizations that must serve other organizations and depend upon them for resources. The paper evaluates the record of new forms of organization such as charter schools and educational management organizations as well as other well-intentioned strategies for transforming American education. It concludes that successful educational entrepreneurship must overcome a deeply-rooted institutional conservatism that is largely explained by modern institutional theory. Finally, we should bear in mind that resistance to change can be a valuable safeguard against bad policy initiatives.

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INTRODUCTION

The term entrepreneurship has been used commonly in recent years to describe strategies to improve education. Because the term has been associated generically with the development of new alternatives in the marketplace, its educational variant has typically referred to a system of school choice, and especially charter schools and vouchers. The general view is that the rewards of the marketplace provide incentives for undertaking the risk of innovation that is required to develop better educational alternatives. Even in the public school districts it is not unusual to hear of a quest for entrepreneurship through the establishment of new schools, and especially small high schools or to hear of “intrapreneurship,” the quest to transform an existing school.

What is clear from the literature on entrepreneurship is that the term is used to describe a wide range of phenomena. To some it is the establishment of a new enterprise under risky conditions and with a high potential financial return for taking that risk. Others see entrepreneurship as closer to the act of invention, also with great risk and great potential payoffs. Yet others attribute entrepreneurship to any act that is likely to add considerable value to a product or service.

Perhaps the most important two voices on entrepreneurship are those of Joseph Schumpeter¹ and Peter Drucker.² Schumpeter emphasized that entrepreneurship was much broader than the act of invention. To him it entailed the processes of harnessing

inventions to create new products, new means of production, and new forms of organization—all adding value to society. Drucker also tended to equate entrepreneurship with innovation, but particularly the role of management:

Management is the new technology (rather than any specific new science or invention) that is making the American economy into an entrepreneurial economy. It is also about to make America into an entrepreneurial *society*.³

These broad definitions of entrepreneurship suggest a potentially key role entrepreneurship in education, through innovation and managerial breakthroughs, providing the spark needed to improve the productivity, quality, and equity of American education. The focus of this paper is to ask whether it is a shortage of entrepreneurialism or obstacles to entrepreneurial success that has accounted for the inertia of the educational industry.

Schools are the focus of great expectations, but habitually charged with disappointing results and an inability to meet expectations. Education is widely believed to be the solution to major social challenges including those of workplace productivity, economic competition, social equity, civic behavior, technology, cultural knowledge, and effectiveness of democracy. In response to these persistent issues, schools are under constant pressure to change, often in conflicting directions, not only in the U.S., but in most countries.

One of the most common complaints about education is its resistance to change. Historically, there have been many attempts to shift the direction of education in the U.S. through new ideas, new leadership, national campaigns for excellence, and instilling fears of losing status or economic and military superiority to competitors because of an underperforming educational system. In some cases these concerns have been addressed

by bold declarations such as those embodied in federal legislation in the 1994 law, *Goals 2000: Educate America Act*, which declared:

"By the Year 2000 -

1. [All children in America will start school ready to learn.](#)
2. The high school graduation rate will increase to at least 90 percent.
3. All students will leave grades 4, 8, and 12 having demonstrated competency over challenging subject matter including English, mathematics, science, foreign languages, civics and government, economics, the arts, history, and geography, and every school in America will ensure that all students learn to use their minds well, so they may be prepared for responsible citizenship, further learning, and productive employment in our nation's modern economy.
4. United States students will be first in the world in mathematics and science achievement.
5. Every adult American will be literate and will possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship.
6. Every school in the United States will be free of drugs, violence, and the unauthorized presence of firearms and alcohol and will offer a disciplined environment conducive to learning.
7. The nation's teaching force will have [access to programs for the continued improvement of their professional skills](#) and the opportunity to acquire the knowledge and skills needed to instruct and prepare all American students for the next century.
8. Every school will promote partnerships that will increase parental involvement and participation in promoting the social, emotional, and academic growth of children."⁴

Six years after the target year of 2000 and more than a decade after the Law was enacted, progress towards these goals has been miniscule to nil. Indeed, there is little evidence that these goals will be attained in any foreseeable future scenario. A similar fate is predicted for the *No Child Left Behind* law, by which every child in America is expected to meet proficiency standards by 2014.⁵

Thus, the question arises, is this lack of progress due to a shortage of entrepreneurship or opportunities for entrepreneurship? Or, are there larger obstacles to

change that overwhelm the entrepreneurial explanation? In what follows I will explore a number of explanations for the resistance to educational change and try to relate those to the possibilities for entrepreneurship. I will suggest that there are much larger barriers to change that presently undermine the possibilities for entrepreneurial innovations in education. Moreover, I will suggest that major departures from existing practices in the short run are often equated with an assumption of long-run sustainability. In fact, it is the challenge of gaining such sustainability over the long-run that is the greatest obstacle, not the establishment of initial departures.

OPPORTUNITIES FOR INNOVATION AND ENTREPRENEURSHIP IN EDUCATION

Given the wide range of interpretations of entrepreneurship, it is important to focus on a specific one. As Drucker and Schumpeter have done, I will emphasize the process of innovation as a measure of entrepreneurship, particularly innovation that has promise for improving the quality of education. Of course, not all educational change is necessarily innovative or an improvement. In general the entrepreneurial view assumes that if a change in a product, process, or application produces advantages in the marketplace, it is an innovation. In education there are very few pure markets because there is considerable regulation at every level and the vast majority of schools are sponsored by public authorities. This difference is an important facet of educational debates today—i.e., the notion of how to free up schools so that they can become more entrepreneurial and innovative.⁶

The dominant traditional approach to educational change is that of public school reform. Historically, schools have been criticized for their perceived deficiencies. These

criticisms have varied from concerns about pedagogies, achievement results, inequitable practices and outcomes, funding patterns, and the quality of the labor force produced by the schools. School reform is the general term given to attempts to change dramatically some of the operational premises and practices of both individual schools and entire groups of schools. Many school reforms have been national in scope in response to major events. Thus, when the Russians were able to put a man in space in 1957, “Sputnik” became the impetus for a massive call and subsequent actions to improve U.S. schools in science, mathematics and foreign languages. When the *Nation at Risk* report was issued in 1983 blaming the schools for deterioration in the U.S. competitive position in the world economy, the schools were again charged with great urgency to improve their performance. In these cases, federal, state, and local governments pressed a variety of reforms to change and improve the schools.⁷

Cuban has suggested that these calls for change have often resembled a recycling of the same reforms, again, and again, and again.⁸ Specific reforms included changes in curriculum, textbooks, teacher training, teacher certification, leadership preparation, school governance, educational technology, and educational funding. These proposed interventions have been dedicated to improving educational quality and equity. Although many reform attempts have been locally inspired, most have been responses to externally-imposed, national and regional movements and state initiatives with the heaviest concentration of reform attempts aimed at urban areas.⁹ The most ambitious of these, so-called whole-school or comprehensive-school reforms, have represented attempts to transform schools in their entirety in terms of goals, organization, curriculum content, and pedagogy.¹⁰ These have been promoted in the largest school districts such as

New York City where a major expansion in numbers of small schools with highly differentiated themes and sponsorship are at the heart of educational reform.

Many commentators believe that the possibilities for school improvement and reform will not be possible without a greater role for parental choice in school selection for their children. Since about 1980 the attempts to change and improve schools have focused heavily on public choice options, the provision of public school alternatives for parents. Initially the strategies were based upon increasing choice within school districts by reducing dependence on residential location in determining which school a child could attend. Thus, parents could choose to send their children to another school within a district if they preferred it to their neighborhood school. In some cases, magnet schools with different educational themes (e.g. science, arts, careers) were established to attract students with particular interests from throughout a district. In many states students were also given the choice of attending schools in other school districts or in enrolling in courses in higher educational institutions when such courses were not available in local high schools. These options were premised on the view that the incentives of parents to choose good schools for their children and of schools to compete for students would enhance the overall quality of all schools.

However, the full fruition of the public choice movement did not arrive until the early 1990's with charter schools. Charter schools are public schools that have been given substantial autonomy from state and local rules and regulations in return for meeting the goals set out in their overall purpose or charter.¹¹ Charter schools can be either "converted" public schools or new "start-ups". Since charter schools must compete for

their students rather than having them assigned by public authorities, they must offer programs and results that are attractive enough to remain viable. In 2005-06, over one million students were enrolled in more than 3,500 schools in 40 states plus the District of Columbia and Puerto Rico.¹² Presumably such schools have large incentives to be innovative, even incubators of new ideas that will be attractive to and adopted by conventional public schools. Many charter schools enlist private firms to manage their schools, so-called educational management organizations or EMO's¹³, providing further competition and possibilities of innovation.

The most complete approach to seeking educational change and innovation is that of promoting a marketplace of private alternatives to existing public schools through educational vouchers or tuition tax credits. Both of these are premised on the assumption that government operation of schools must always be more rigid, restrictive, and less risk-taking than private institutions that rely on competition in the marketplace. Thus, the most dynamic strategy to gain long-term educational improvement through innovation is the funding of private schools in a competitive market. Under a voucher plan, any school meeting certain minimum standards is permitted to compete for students and is reimbursed through public funds.¹⁴ Parents are given a tuition voucher for each child that can be redeemed by the school. Tuition tax credits represent a different form of public subsidy by providing reductions in the tax burden for families who pay tuition to private schools. Although the use of educational vouchers is not widespread, voucher systems are found in Milwaukee, Cleveland, Washington, D.C. and have been recently proposed for the devastated Gulf Coast where many existing public schools have been destroyed.

Parental tuition tax credits or deductions are sponsored by several states including Minnesota, Arizona, Iowa, and Illinois.

Even in the absence of formal choice mechanisms to promote innovation and change in schools, parents tend to locate their residences in proximity to communities and neighborhoods with better schools. Although a large portion of the population has used the housing option to choose schools, this alternative is less available to the poor or those whose choices are restricted by segregated neighborhoods. Studies of educational choice suggest that about 60 percent of the population has choice options in schooling based upon such mechanisms as residential choice, interdistrict and intradistrict choice, private schools, charter schools, vouchers, and tuition tax credits. Most of this choice is due to residential choice and options within or among districts.¹⁵

Change is Not Easy

But, the overall finding from studies of public school reform, charter schools, and the limited experience with vouchers and market reform is that educational change does not come easily under any circumstance. Particularly telling in this regard is Cuban's study, which attempts to document historically how schools functioned over an entire century, from 1890 to 1990.¹⁶ Cuban draws upon an extensive set of historical materials on schools including photographs, teacher accounts, journalists' accounts, principals' reports, evaluations, and thousands of records from four different cities and rural areas. He compares schools, classrooms, and the teaching process at the turn of the century, in the 1920s, and in more recent times. He concludes that constancy is a far more accurate description of these core elements of education than substantial change. A long-time observer of schools, Seymour Sarason, arrives at a similar conclusion in examining the

educational reforms in the latter part of the twentieth century.¹⁷ History does not suggest that massive changes in education are in the offing, if only we can harness a new wave of entrepreneurship.

RAISING PRODUCTIVITY

There are two ways of raising productivity: lowering costs for a given outcome or improving results for a given cost. In acknowledging the strong rise in cost of education over recent decades, one might first ask about entrepreneurial efforts to reduce costs or increase productivity. Three prime candidates that are often discussed for educational service delivery organizations with adequate economies of scale; raising productivity of labor; and using cost-saving technologies.¹⁸

Cost Disease

On the issue of educational productivity, it is important to note the work of eminent economist William Baumol in his analysis of the “cost disease.”¹⁹ Baumol has argued that some industries are able to raise worker productivity by substituting capital for labor or less-skilled workers for higher-skilled ones and using newer and more productive technologies, offsetting higher labor costs. In contrast, other industries, including education, he argues, are labor intensive with very limited abilities to change production through investments that reduce the need for skilled labor.

Education and the performing arts are the poster children of industries that simply absorb increased labor costs because they are limited in their ability to substitute capital or less-costly labor for teachers and other professionals as labor costs rise. Baumol views education as more akin to a string quartet or orchestra than a steel factory. Replacing two musicians in a string quartet with electronic music is not a feasible response as labor

costs rise. Likewise there are few options for replacing teachers. Some proof of this production rigidity is found in the fact that private schools and charter schools with fewer legal restrictions and union contracts produce education in largely the same way as public schools.²⁰ We will suggest reasons for this behavior below.

Economies of Scale

A second area of potential productivity increases is to seek economies of scale. Although economies of scale can be sought for very small educational units, schools, or districts, the vast majority of students are in educational organizations that are large enough to neutralize or undermine scale economies. Education is characterized mainly by variable costs (especially labor) that increase with enrollments rather than fixed costs that can be divided over more and more students. Decades of study of economies of scale in education have shown this result.²¹ Unfortunately, some of the pioneering educational management organizations such as Edison Schools lost hundreds of million dollars pursuing expansion to gain the elusive economies of scale by managing more and more schools.²²

New Practices

The evidence on the use of new practices to raise productivity or reduce costs is also discouraging. For example, for-profit educational management organizations (EMO's) expected to improve productivity by improving selectivity, training, performance incentives, and supervision of personnel, by adopting better curriculum and teaching practices, and by reallocating funding from administrative overhead to classrooms. In fact, studies of EMO's have found greater administrative costs than comparable publicly-operated schools.²³ EMO contracts have also been more costly than

funding received by similar public school sites. For example, EMO's in Philadelphia have received about \$ 22,000 more per classroom than comparable public schools and even greater additional resources in Baltimore.²⁴ Moreover, there is little evidence that EMO-run schools outperform public schools with similar students.²⁵ For example, the most comprehensive evaluation of Edison Schools, undertaken by the Rand Corporation under contract to Edison, found that after five years the achievement results for Edison Schools in reading were no better than those in comparative public schools, and although Edison Schools showed higher achievement in mathematics, the results were not statistically significant.²⁶

Although every new technology is associated with claims that it will reduce costs and increase learning, the promises have not been realized in terms of evidence from public schools, private schools, or EMO-run schools. Educational technologies have not served to replace teachers, although they have contributed to the possibilities of a richer curriculum and the ability to treat subjects in greater depth and capitalize on student research. Cuban provides some of the reasons that the overall “promise” has not been realized.²⁷

Reports of Cost Savings: Higher Test Scores?

No rigorous evidence of cost savings for comparable students and comparable services is found in the literature. Schools seek to control costs by seeking students who are less costly to educate or providing fewer services. An example of the first case is found in the division between market-oriented and mission-oriented schools where the former group of schools tend to “shed” high cost students and try to attract those who are

more easily educable.²⁸ Many charter schools set stringent requirements on student behavior, parental responsibilities, and daily and Saturday schedules that only the most dedicated parents and students will aspire to. Kipp Academies are one example. Although these requirements may be educationally defensible, they represent a sorting device in which the school will appear to be more productive in achievement than schools with students who are not required to meet these standards. Kipp Academies also have a large reservoir of additional philanthropic support for their operations beyond the public funding that they receive, something that needs to be factored in.

An example of where fewer services are provided is that of the virtual charter school.²⁹ Such schools are designed to enroll home schoolers and use the internet to deliver instruction. Given their considerably lower personnel and facility requirements, these schools can deliver a limited set of services at a highly reduced cost. What evidence does exist on their performance suggests that they hardly provide a challenge to Baumol's cost dilemma.³⁰ However, their public funding levels relative to their limited services gives hints of enormous profits for their private sponsors.

The challenge remains to find schools that have lower costs for delivering similar services to similar students or superior results for the same amount. Sadly the review of literature on school productivity for this effort does not show consistent, sustained, and radically-different results for the new entrepreneurial endeavors, despite the claims. When favorable differences are found, they tend to be small (for example only a tenth or so of the black-white achievement gap), and it is not clear that all of these can be replicated or sustained over a long period.³¹

LIMITS TO ENTREPRENEURIAL SUCCESS

If one were to ask public school authorities what limits their ability to innovate and change, their answer would almost invariably be “the regulations.” Schools are highly regulated at all levels of government, and especially by the states. The schools are the constitutional responsibility of the states, and most state constitutions generally delegate to the state legislatures the responsibilities to establish and maintain schools. Legislatures, in turn, have created a huge accumulation of laws and rules that pertain to school operations, often in behalf of the educational professionals and lobbies who benefit from them. The legislatures have charged the interpretation and enforcement of the laws and rules to their state school boards and departments of education, promulgating additional administrative regulations that schools must follow. To these we can add the federal laws and requirements and the policies set out by local school boards. From the perspectives of school leaders, professionals, and parents, the ability to pursue innovation and change is largely blocked due to the proliferation of such regulations.

This issue came to a head in California in the 1980’s when even the state’s Superintendent of Public Instruction supported legislation that would allow school districts to apply for waivers of existing laws and regulations if it could be demonstrated that such waivers were needed to undertake educational improvements. The California Legislature passed the education waiver law with broad authority: “to provide flexibility in a school district or county office of education without undermining the basic intent of the law.”³² At that time I asked the official in the California State Board of Education who began to monitor the waiver requests to keep a record of the number of requests and the specific rules or regulations that schools wanted to be waived. This scrutiny resulted

in two surprises. The first was that in spite of the high visibility of the law and the existence of almost 1,100 school districts and County Offices of Education, relatively few formal requests for waivers were made. My recollection was that less than 100 were made in the first year of the legislation. But, even more surprising was that, with the exception of requests to waive special education provisions, the vast majority of all requests for waivers were unnecessary. A review by legal counsel found that the educational improvements that were proposed could be undertaken without waivers because they did not violate laws or regulations. That is, to a large degree educational changes that were fully permissible under existing laws were not being undertaken because of a belief by local officials that there were restrictions that required appeal to the state for waivers. It appeared that in an overall regulatory climate, the laws and regulations were being used as a scapegoat by local authorities to justify maintaining existing practices.

In discussions with the former superintendent in Memphis, Dr. Gerry House, a parallel story emerged.³³ Dr. House encouraged schools to try new approaches where old ones were not working. She emphasized that if district regulations and policies were barriers to new practices, the individual schools should request waivers of those regulations and policies. She found that almost all requests for such waivers were unnecessary. That is, the schools would be permitted to establish the proposed, new practices under existing district policies.

However, a much better test of the role of laws, rules, and regulations to limit opportunities for innovation and change is found in the thirteen-year history of the charter school movement. One of the most basic tenets of charter schools is that they are granted

considerable autonomy from most rules and regulations in order to have the power to be innovative. By making them immune from most of the rules, they can be free to be incubators of new ideas and practices that will eventually be adopted by and improve more conventional public schools. This is what economists refer to as an external benefit because, beyond the improvement of education for their own students, their autonomy enables charter schools to create innovative practices that can be emulated by other schools to the benefit of all students. And, since charter schools compete with public schools for enrollees, there is a putative incentive on the part of both groups of competitors to innovate to gain advantage.

Lubienski has done considerable research on innovation in charter schools.³⁴ Of particular importance has been his attempt to compare instructional practices in charter schools with those in conventional, public schools as well as among states with high degrees versus moderate degrees of charter school autonomy. Lubienski finds that at an administrative level, charter schools are engaging in a number of distinctive practices relative to public schools such as merit pay, marketing, parental incentive contracts, and use of private financing arrangements.³⁵ But, a specific comparison of core instructional practices (pedagogy, curriculum, and school organization) reveals that almost all instructional “innovations” reported by schools in their charters and reports are practices already found in many conventional public schools.

Different states have provided varying levels of autonomy to their charter schools, some highly permissive and others less so. Drawing upon a large range of surveys of innovations, Lubienski compared claimed innovations in two states allowing moderate autonomy for charter schools with two states allowing high autonomy. No substantial

differences were found within these comparisons, despite substantial differences in their regulatory environments, suggesting that whatever merits deregulating schools may confer, they do not seem to be the key to unleashing innovation.

Lubienski does suggest that over the long run, the main innovative impact of charter schools may be their record in taking advantage of online learning to incorporate home schoolers into an official schooling experience.³⁶ However, as hinted previously, this movement has been characterized by a quick quest for profit in its ability to obtain high reimbursements under the charter school provisions without providing either the facilities or personnel costs that are consistent with those levels of reimbursement.³⁷ Evidence on effectiveness is also lacking, with large numbers of virtual charter students failing to take the required state tests used for evaluation.³⁸

The lack of core, pedagogical innovations in charter schools is predictive of an absence of comparative gains in student achievement. Summaries of studies comparing student achievement in charter schools with that in conventional public schools enrolling similar students show no distinct advantage for charter schools.³⁹ Although there are high-performing and low-performing schools in both sectors, there are no clear differences in achievement, on average. Even when individual studies show an advantage of one type of school over the other, the differences are very small, not close to the revolutionary differences claimed by each side.

One additional test of the “regulatory” obstacles to innovation is found in the independent school sector. Although the states are authorized to regulate independent schools in almost all of their instructional dimensions, they have been reluctant to do so for political reasons. The result is that regulations surrounding private or independent

schools have been minimal in virtually every state relative to the regulations imposed on public schools. At the same time there is a high demand in most urban areas for independent schools because of middle class families' perceptions of low standards and safety issues in public schools and possible racism, particularly in large cities. It is not uncommon for applicants to face long waiting lists and vigorous competition for limited numbers of spaces in the most desirable schools, despite tuition levels of \$ 20,000 a year or more.

Under these conditions one might expect to see new schools attempting to enter the market with innovative approaches—for example, creative use of educational technologies—to compete for such students in what appears to be a lucrative market. In fact, few competitors have arisen to take advantage of the regulatory freedoms and high potential tuitions that can be charged for an attractive private school. Paradoxically, the schools facing the highest student demand for available spaces are those known for such traditional instructional features as small class sizes and many elective courses, high cost practices, but hardly innovations.

CAN SCHOOLS BE ENTREPRENEURIAL?

We know from reports of innovative charter schools, conventional public schools, and contracted EMO schools that efforts have been made to be entrepreneurial and innovative. Site visits to many such schools suggest that they are at least partially successful in effecting some innovative changes. Yet, we cannot ignore Cuban's conclusion that the preponderance of evidence suggests that constancy rather than change has characterized schools over the past century.⁴⁰ Technologies have arisen over this period and made little impact on the core activity of schools.⁴¹ Beyond the textbook and

chalkboard, we saw the emergence of slides, film, radio, closed-circuit television, video tapes and cassettes, computers, interactive and multi-media approaches, and the rich possibilities of the internet.

Different instructional trends from multi-age grading to year-round schooling to new configurations of facilities to immersion with electronic technologies to whole school reforms have characterized educational reforms during the post-World War II period. After the Sputnik launch some 50 years ago, new curricula were spawned in the sciences and mathematics, new teachers were trained in these subjects and foreign languages, and existing teachers were retrained. Yet, as my former colleague at Stanford, Michael Kirst, reminded me frequently, over the long term there has been little “residue” remaining from these reforms. His point was that schools tend to mount a frenzy of reform and innovation with little to show for it. Thus, we are confronted with a paradox of new ideas and new schools, but little evidence that they are sustainable over the long run.

One of the best examples is that of Central Park East Secondary School in New York City (CPESS). CPESS was essentially an expansion of innovative elementary and middle schools started in East Harlem by noted educator Deborah Meier in the seventies. The establishment of the high school in 1985 was a response to the frustration of students, parents, and teachers with the poor quality of available high schools to which CPE students were relegated, along with the influence of TheodoreSizer’s ideas and his newly formed Coalition of Essential Schools (CES).⁴² The CES is a comprehensive school approach in which a set of principles are used by the school to address all of its activities.⁴³ Among its ten principles are an emphasis on personalization, depth in studies,

learning to use one's mind well, and demonstration of mastery. The latter means that assessment requires the ability to ensure the mastery of a body of knowledge or technique that can be demonstrated before experts and others rather than simply meeting a requirement by taking a course. Under Deborah Meier, CPESS focused on five major intellectual habits that were expected to be applied to all studies. These included: concern for evidence (how do you know that?), viewpoint (who said it and why?), cause and effect (what led to it, what else happened?), and hypothesizing (what if? setting out hypotheses) and who cares (what difference does it make, to whom).⁴⁴

The results reported for Central Park East were outstanding. With a student population that was predominantly poor and minority, fewer than five percent dropped out before graduation. More than that, observers of the school found both students and teachers deeply engaged in activities. Apathy was non-existent as high school students worked assiduously to gain mastery in the areas that they were studying, and teachers served as coaches to make it happen. CPESS was heralded in both the professional literature and in the press for showing that a new kind of high school could be established and succeed. Debbie Meier was able to attract talented personnel and to provide inspiration and leadership to them. Others on her staff were also able to follow her lead by providing leadership and role models for students and staff. Assiduous fundraising and the attractions of supporting a successful schooling departure led to substantial extra funding from both government and philanthropic foundations as well as considerable autonomy.⁴⁵

In 1995, a decade after CPESS was launched, Debbie Meier left to establish a new school in Boston. Principal succession at that time was not a problem since her co-

director, for whom she had high regard, was in place to continue the CPESS tradition. But, after Ms. Meier left, the school began to look more and more like other high schools educating a similar population with far poorer academic results. In an interview in 2005 Ms. Meier explained what happened after she left. She cited increased enrollment, the departure of experienced teachers and the watering-down of special programs in reaction to a greater emphasis on standardized testing. “I stopped visiting. It was too painful.”⁴⁶

SUSTAINING INNOVATION

The problem does not seem to be the lack of initiatives to innovate or reform, by both school leaders and those outside of the schools, but the ability of schools to effect and sustain change. There is something about schools that seems to excise or modify change, eventually returning largely to their former way of functioning. Even new schools that start out with strong departures from existing practice seem to move back towards the norm. At least three related explanations for this phenomenon can be found in the organizational literature on schooling: school culture, schools as mutating agents, and the school as a conserving organization. Although the literature on each of the first two explanations is vast, I will provide just brief descriptions.

School Culture

School culture refers to the widely-shared understandings, behaviors, and attitudes that are held by school participants and that are accepted as the norms for how schools should function.⁴⁷ These are dimensions of schools that are usually not acknowledged directly because they are so widely inculcated that they are taken for granted. We are so immersed in them that we do not question them. School operations

depend upon a stable and shared understanding or culture providing a framework that integrates and defines school activities and roles. That culture is built on tradition, habit, expectations, and images of what schools should do and be. To suggest that schools should change or that new schools should be different is to suggest that traditions, habits, expectations, and images be immediately abandoned, modified or be replaced by others, a virtual impossibility in dealing with human agents.⁴⁸ So, school reform usually tends to focus on the illusion that it is only trainability and skills for innovation that must be improved and ignores the more deeply rooted aspects of school culture. But it is attitudes and routinized modes of operation, according to this theory, that are the greatest obstacles to change, not a lack of skills. Skills can be acquired by school staff, if they are convinced sufficiently that they need those skills and have access to appropriate resources for professional development.

School culture has many dimensions that give meaning to the daily lives of all of the participants including students, staff, parents, and member of the larger community. These include expectations about children in terms of behavior and what they should learn, including the possibility of different expectations by class, race, and gender; expectations by the students themselves about appropriate school experiences and their self-images of proficiencies; expectations about the roles of adults in the school; opinions about acceptable educational practices; and basic beliefs about the desirability for change. It is the tacit agreement around these dimensions that enables schools to function as purposive institutions. If each were a source of contestation, schools would have difficulty carrying out their missions, for the missions themselves would be undermined.

Because schools have their own cultures, they resist changes that are premised on a very different set of beliefs. For example, a school that believes that students must be tracked into ability groups will not be enthusiastic about a reform that is premised on mixed ability grouping. A school that defines mathematics in terms of memorization of “math facts” and the carrying out of specific mathematical operations will be unlikely to embrace an emphasis on conceptual approaches to mathematics and problem-solving. A school that views writing as highly stylized and evaluates it largely for the mechanics of presentation rather than content will resist a new curriculum where writing is viewed primarily as a creative and expressive skill. Every school reform is embedded in specific assumptions about school culture, assumptions that may not be compatible with the actual culture that exists in a given school or that is represented by the staff recruited for a new school. According to those who study school culture, it is this lack of congruence that is primarily responsible for the failure of school reforms to take hold in new settings.⁴⁹

Mutating Reforms

In many cases school culture is incompatible with proposed reforms or innovations. In those cases, it is rare that the reform is implemented beyond a surface appearance. In fact, when reforms are forced on schools, the school often has more influence in modifying the reform than the reform has in modifying the school.⁵⁰ Although those who push innovations on schools view them as “interventions” that will modify school behavior, schools respond to such interventions by remodeling them in ways that disarm the threat to existing practices.⁵¹ Simply by ignoring them or “going through the motions” this will take place. Schools are not inert entities that can be

fashioned easily into the shapes desired by reformers. Schools are active communities of members united by a deeply etched culture that will resist the invasion of alien ideas and practices. This reality has been ignored by most educational reformers. Yet, much of the attempt to effect educational change and innovation has failed because of the ill fit between the reform and the extant culture of the school inducing the school to defuse the change attempt.⁵²

This challenge is even true for new schools, though their founders often believe that they are immune from old patterns. Despite selective recruitment, students and staff do not enter such schools with pristine views on what is possible or desirable or how schools should function. The ability of schools to modify innovative intentions may not be the result of deliberate attempt or a conspiracy so much as staff attending to deeply held beliefs and expectations about school operations and ignoring the innovation. When pressed to comport with the reform, many staff may leave to go to a more conventional school environment or may leave teaching altogether. A hint of this phenomenon is suggested by charter school departures of teachers in Ohio. Almost half of all teachers in Ohio's charter schools quit over a four year period (2000-2004) in comparison with about 8 percent in conventional public schools and 12 percent in high-poverty, urban public schools.⁵³

Schools as Conserving Institutions

In stable and democratic societies, schools are not revolutionary institutions designed to transform social outcomes. Schools are conservative institutions charged with the primary goal of preparing the young to acclimate to and participate in the

cultural, social, economic, and political life of an existing social entity. That is, schools are conserving institutions with responsibility for inculcating the values, attitudes, and skills that reproduce existing social, economic, and political structures. As parents, teachers, students, taxpayers, and citizens, we expect our schools to fulfill this role. But fulfillment of this role means suspicion of and resistance to change by parents, teachers, students, and school administrators, exactly what we find in school culture and in the tendency of schools to modify external attempts to reform them.

In fact, parents may be looking for schools that have not attempted to innovate, but that represent the image of education that they believe was emblematic of the past, “when schools worked”. As Lubienski notes in summarizing several empirical studies of charter schools: “...the largest discernible proportion of charter schools by far are using their autonomy to provide ‘basics’ or traditional curricula.”⁵⁴ School culture may be a drag on change and innovation because it conserves tradition and the core historical purpose of schools.

Although retrospectively it may appear that schools and schooling changed society, such an eminent educational historian as David Tyack has argued precisely the opposite: that school change was a response to major turning points in American history.⁵⁵ Thus, schools have largely served as a conserving institution rather than as an institution of change and innovation, and this reality is well-understood by parents, students, and school staff in their behaviors. The demand for 3-R schools is indicative of this conservatism.

NEW INSTITUTIONAL THEORY

In my view, new institutional theory represents the best overall explanation of the resistance of schools to innovation. In their seminal article, DiMaggio and Powell (1983) ask at the outset:

...why is there such startling homogeneity of organizational forms and practices ... not variation. In the initial stages of their life cycle, organizational fields display considerable diversity in approach and form. Once a field becomes well established, however, there is an inexorable push towards homogenization.⁵⁶

They conclude that organizations that are highly dependent upon other organizations such as mainstream economic, political, and social institutions will become isomorphic (having the same form or appearance) with those institutions. Following Aldrich⁵⁷, they emphasize that the main forces that organizations must take into account are those of other organizations.

Organizations compete not just for resources and customers, but for political power and institutional legitimacy, for social as well as economic fitness. The concept of institutional isomorphism is a useful tool for understanding the politics and ceremony that pervade much modern organizational life.⁵⁸

On the basis of this theory, they generate a number of hypotheses including the expectation that the greater the dependence of an organization on another organization, the more it will become similar to that organization; the greater its dependency for resources on a given organization, the more it will become isomorphic to that organization; the less certain the relation between means and ends, the greater it will model itself after those organizations that appear to be successful; and the more ambiguous its goals, the more it will model itself after organizations that appear successful.

Schools tend to mirror all of these dependencies. For example, schools have many goals rather than a unitary one and the relationships between their inputs and outputs (means and ends) are uncertain and unpredictable. All schools, even charter schools, are heavily dependent upon largely centralized sources of finance and other resources. And, finally, their dependence on other educational institutions such as colleges and universities that enroll them later, economic institutions that support them through tax levies and hire their graduates, and civic institutions through which they will express themselves politically must recognize their legitimacy and the value of their credentials. Based upon these dependencies, schools will tend to gravitate to and become isomorphic to other institutions rather than maintaining independence.

In their groundbreaking work, Meyer and Rowan argued that traditional theories of coordination and control of formal organizations often fall by the wayside in education.⁵⁹ Normally innovation is introduced to educational organizations by managers responding to external pressures. It is assumed that through command and control these innovations will be implemented in a straightforward manner under the monitoring and sanctions of those who manage such organizations. But since schools have been shown to be only loosely coupled, command and control is almost futile.⁶⁰ Meyer and Rowan maintain:

...structural elements are only loosely linked to each other and to activities, rules are often violated, decisions are often un-implemented, or if implemented have uncertain consequences, technologies are of problematic efficiency, and the evaluation and inspection system are subverted or rendered so vague as to provide little coordination.⁶¹

Under such circumstances, schools gain their legitimacy from taking on the forms and appearances of those institutions on which they are dependent. This means that

legitimacy derives from rationalized institutional myths based upon this isomorphism which form the basis for operations. Myths, rituals, and symbols validate the organization and legitimate its claim for resources and for the honoring of its operations.

These criteria are often in conflict with straightforward efficiency criteria. For example, Meyer and Rowan suggest that American schools once provided specific training for jobs in which educational efficacy of schools and student prowess could be evaluated according to specific criteria.⁶² However, over time this has shifted to more ambiguous measures such as credits or certificates which may or may not serve efficiency purposes. Meyer & Rowan emphasize the ritual classifications that define the roles and actions of the various school participants and the schools themselves, ones that are remarkably stable because of isomorphism with the stability of institutions on which they are dependent.⁶³ At the end of the day, it is precisely these features that one expects of schools that gives them their legitimacy and stability.

The institutionalist perspective provides a general framework that is able to integrate much of the previous analysis. The importance of isomorphic behavior requires that schools regulate themselves through their dominant rituals, symbols, and images irrespective of the degree of external regulation. Ethnographers label this behavior as school culture. Such institutions operate inexorably to modify and neuter attempts to impose change and innovation, as the school has more power to alter the reform than the reform has to change the school. Finally, this institutionalist umbrella tends to explain why schools serve largely as conserving forces rather than change forces.

Can educational innovation succeed over the long run? According to institutional theory, the answer would seem to be only if there are major changes in those institutions

on which schools are dependent, for changes in those organizations will create pressures for a new isomorphism.

As noted, one of the foremost educational historians asserted this some forty years ago in his interpretation of how educational change took place historically.⁶⁴ Tyack suggested that major changes in schools coincided with significant changes in social, political, and economic institutions, what he called turning points in educational history. Even those with more activist interpretations of school change accept the limits imposed by institutional theory.⁶⁵ All of them acknowledge that this dependency is the main challenge to innovation in education and the success of the educational entrepreneur.

Should we give up the quest for beneficial change through spirited entrepreneurialism? Of course not. While Central Park East Secondary School flourished it provided important benefits for its students and inspiration for many other entrepreneurial efforts to emulate it. But to ignore the forces that undermine long-term change in education is to repeat the futility that has characterized virtually thousands of well-intentioned attempts to alter education. These forces need to be taken seriously if there is any chance of overcoming them. Most important, it seems to me, is to understand the role of social movements in education and other parts of society for opening windows of opportunity for change. Finally, we should acknowledge that the resistance to change that is so often deprecated by policy-makers can also be a valuable safeguard or firewall that protects us from bad policy initiatives.

¹ Joseph A. Schumpeter, *The Theory of Economic Development* (Cambridge, MA: Harvard University Press, 1934).

² Peter Drucker, *Innovation and Entrepreneurship* (New York: Harper & Row, 1985).

³ Drucker, *Innovation and Entrepreneurship*, 17.

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- ⁴ *Goals 2000: Educate America Act, U.S. Code 20* (1994), §§ 5801 et seq.
- ⁵ Robert Linn, "Accountability: Responsibility and Reasonable Expectations," *Educational Researcher* 32, no. 7 (October 2003).
- ⁶ The educational marketplace and a summary of evidence on the consequences of educational privatization are addressed in Clive R. Belfield and Henry M. Levin, *Privatizing Educational Choice: Consequences for Parents, Schools, and Public Policy* (Boulder, CO: Paradigm Publishers, 2005).
- ⁷ David Tyack and Larry Cuban, *Tinkering Toward Utopia: A Century of Public School Reform* (Cambridge, MA: Harvard University Press, 1995).
- ⁸ Larry Cuban, "Reforming: Again, Again and Again" *Educational Researcher* 19, no. 1 (January 1990)
- ⁹ Frederick Hess, *Spinning Wheels: The Politics of Urban School Reform* (Washington, D.C.: The Brookings Institution, 1999).
- ¹⁰ Mark Berends, Susan Bodilly, and Sheila Nataraj Kirby, *Facing the Challenges of Whole-School Reform: New American Schools After a Decade* (Santa Monica, CA: Rand, 2002).
- ¹¹ Katrina Bulkley and Priscilla Wohlstetter, *Taking Account of Charter Schools* (New York: Teachers College Press, 2004).
- ¹² See <http://www.USCharterschools.org>.
- ¹³ Steven F. Wilson, "Realizing the Promise of Brand-Name Schools" in *Brookings Papers on Education Policy 2005*, ed. Diane Ravitch (Washington, DC: The Brookings Institution, 2005), 89-126.
- ¹⁴ Milton Friedman, *Capitalism and Freedom* (Chicago: University of Chicago Press, 1962).
- ¹⁵ Jeffery Henig and Steven Sugarman, "The Nature and Extent of School Choice" in *School Choice and Social Controversy: Politics, Policy and Law*, eds. Steven Sugarman and Frank Kemerer (Washington, D.C.: The Brookings Institution, 1999).
- ¹⁶ Larry Cuban, *How Teachers Taught: Constancy and Change in American Classrooms, 1890-1990* (New York: Teachers College Press, 1993).
- ¹⁷ Seymour Sarason, *The Predictable Failure of Educational Reform: Can We Change Course Before Its Too Late* (San Francisco: Jossey-Bass, 1990).
- ¹⁸ All three of these strategies are included in a vision of what education will be like in 2030 by Chris Whittle, Founder and CEO of Edison Schools in his book, *Crash Course* (New York: Riverhead Books, 2005).
- ¹⁹ William J. Baumol, "Macroeconomics of Unbalanced Growth: The Anatomy of Urban Crisis," *American Economic Review* 57, no. 3 (June 1967).
- ²⁰ Byron Brown, "Why Governments Run Schools," *Economics of Education Review* 11, no. 4 (December 1992); Richard Rothstein, Martin Carnoy, and Luis Benveniste, *Can Public Schools Learn From Private Schools* (Washington, D.C.: Economic Policy Institute, 1999).
- ²¹ See, for example, Matthew Andrews, William Duncombe, and John Yinger, "Revisiting Economies of Size in American Education: Are We Any Closer to a Consensus?" *Economics of Education Review* 21, no. 3 (June 2002).
- ²² More recently Edison Schools has reduced the number of schools that it is managing and has expanded substantially its provision of supplementary services including summer school, after-school programs, tutoring, and software. Although it is privately held and does not need to report its financial status, these changes have reportedly made it a profitable entity.
- ²³ Jane Hannaway and Nancy Sharkey, "Does Profit Status Make a Difference: Resource Allocation in EMO-run and Traditional Public Schools," *Journal of Education Finance* 30, no. 1 (Summer 2004); William Ratchford II, "Going Public With School Privatization," *The Abell Report* 18, no. 3 (May/June 2005).
- ²⁴ William Ratchford II, "Going Public With School Privatization," *The Abell Report* 18, no. 3 (May/June 2005).
- ²⁵ Gary Miron and Christopher Nelson, *What's Public About Charter Schools?* (Thousand Oaks, CA: Corwin Press, 2002), 143-147; Brian P. Gill, Laura S. Hamilton, J. R. Lockwood, Julie A. Marsh, Ron W. Zimmer, Deanna Hill, and Shana Pribesh, *Inspiration, Perspiration, and Time: Operations and Achievement in Edison Schools* (Santa Monica, CA: Rand, 2005).
- ²⁶ Brian P. Gill, Laura S. Hamilton, J. R. Lockwood, Julie A. Marsh, Ron W. Zimmer, Deanna Hill, and Shana Pribesh, *Inspiration, Perspiration, and Time: Operations and Achievement in Edison Schools* (Santa Monica, CA: Rand, 2005), xxvi - xxvii. To Edison's credit, it sponsored this rigorous evaluation.

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- A search of major sources and requests to EMO's found no evaluations of this quality for any of the other EMO's.
- ²⁷ Larry Cuban, *Oversold and Underused: Computers in the Classroom* (Cambridge, MA: Harvard University Press, 2001).
- ²⁸ Natalie Lacireno-Paquet, Thomas T. Holyoke, Jeffrey Henig, and Michele Moser, "Creaming versus Cropping: Charter School Enrollment Practices in Response to Market Incentives." *Educational Evaluation and Policy Analysis* 24, no. 2 (Summer 2002).
- ²⁹ Luis Huerta, Maria Fernanda Gonzalez, and Chad d'Entremont, "Cyber and Home School Charter Schools: Adopting Policy to New Forms of Public Schooling", *Peabody Journal of Education* 81, no. 1 (forthcoming 2006).
- ³⁰ Ohio has the largest number of online charter schools in the country. The majority of such schools were in "academic emergency" or "academic watch", the two lowest categories in the rating system of the State of Ohio. Doug Oplinger, "Charter Schools Take Step Back in Ohio Ratings," *Akron Beacon Journal*, August 17, 2005.
- ³¹ See a comprehensive summary of studies in Belfield and Levin, *Privatizing Educational Choice*, Chap. 6.
- ³² See the details available online at <http://www.cde.ca.gov/re/lr/wr/index.asp>.
- ³³ Personal conversation with Dr. House, October 27, 2005.
- ³⁴ Christopher Lubienski, "Charter School Innovation in Theory and Practice: Autonomy, R&D, and Curricular Conformity," in *Taking Account of Charter Schools*, eds. Katrina E. Bulkley and Priscilla Wohlstetter (New York: Teachers College Press, 2004); Christopher Lubienski, "Innovation in Education Markets: Theory and Evidence on the Impact of Competition and Choice in Charter Schools," *American Educational Research Journal* 40, no. 2 (2003).
- ³⁵ Christopher Lubienski, "Charter School Innovation in Theory and Practice: Autonomy, R&D, and Curricular Conformity," in *Taking Account of Charter Schools*, eds. Katrina E. Bulkley and Priscilla Wohlstetter (New York: Teachers College Press, 2004), 82.
- ³⁶ Christopher Lubienski, "Charter School Innovation in Theory and Practice: Autonomy, R&D, and Curricular Conformity," in *Taking Account of Charter Schools*, eds. Katrina E. Bulkley and Priscilla Wohlstetter (New York: Teachers College Press, 2004), 85.
- ³⁷ Luis Huerta, Maria Fernanda Gonzalez, and Chad d'Entremont, "Cyber and Home School Charter Schools: Adopting Policy to New Forms of Public Schooling", *Peabody Journal of Education* 81, no. 1 (forthcoming 2006).
- ³⁸ Doug Oplinger and Dennis J. Willard, "Online Students Missing Exams," *Akron Beacon Journal*, June 3, 2005.
- ³⁹ (Christopher Nelson and Gary Miron, "Professional Opportunities for Teachers: A View from Inside Charter Schools," in *Taking Account of Charter Schools*, eds. Katrina Bulkley and Priscilla Wohlstetter (New York: Teachers College Press, 2004); Brian P. Gill, Michael Timpane, K. E. Ross, and Dominick J. Brewer, *Rhetoric Versus Reality: What We Know and What We Need to Know About Vouchers and Charter Schools* (Santa Monica, CA: Rand, 2001); Martin Carnoy, Rebecca Jacobsen, Lawrence Mishel, and Richard Rothstein, *The Charter School Dust-Up: Examining the Evidence on Enrollment and Achievement* (New York: Teachers College Press, 2005).
- ⁴⁰ Larry Cuban, *How Teachers Taught: Constancy and Change in American Classrooms, 1890-1990* (New York: Teachers College Press, 1993).
- ⁴¹ Larry Cuban, *Oversold and Underused: Computers in the Classroom* (Cambridge, MA: Harvard University Press, 2001).
- ⁴² Theodore R.Sizer, *Horace's Compromise: The Dilemma of the American High School* (Boston: Houghton Mifflin, 1984).
- ⁴³ Information available online at <http://www.essentialschools.org>.
- ⁴⁴ Deborah Meier, *The Power of Their Ideas: Lessons for America From a Small School in Harlem* (Boston: Beacon Press, 1995).
- ⁴⁵ Ibid.
- ⁴⁶ Elissa Gootman and David M. Herszenhorn, "Getting Smaller to Improve the Big Picture; Trying to Lift Performance by Shrinking City Schools," *New York Times*, May 3, 2005.
- ⁴⁷ Christine Finnan and Julie Swanson, *Accelerating the Learning of All Students: Cultivating Culture Change in Schools, Classrooms, and Individuals* (Boulder, CO: Westview Press, 2000).

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- ⁴⁸ Robert Evans, *The Human Side of School Change: Reform, Resistance, and the Real-Life Problems of Innovation* (San Francisco: Jossey Bass, 1996).
- ⁴⁹ Ibid.
- ⁵⁰ Milbrey W. McLaughlin, "The Rand change agent study revisited: Macro- perspectives and micro realities", *Educational Researcher* 19, no. 9 (December 1990); Larry Cuban, *Oversold and Underused: Computers in the Classroom* (Cambridge, MA: Harvard University Press, 2001). A good example of this behavior is the failure to get schools and teachers to adopt the learning standards set out by states when these are externally imposed by authorities with little or no involvement from school staff who must implement them. See James P. Spillane, Standards Deviation: How Schools Misunderstand Education Policy (Cambridge, MA: Harvard University Press, 2004).
- ⁵¹ David B. Tyack and Larry Cuban, *Tinkering Toward Utopia: A Century of Public School Reform* (Cambridge, MA: Harvard University Press, 1995), 61-84.
- ⁵² Andrew Hargreaves, Ann Lieberman, Michael Fullan, and David Hopkins, eds., *International Handbook of Educational Change* (Boston: Kluwer Academic Publishers, 1998).
- ⁵³ Jennifer Mrozowski, "Charters Have High Turnover," *The Cincinnati Enquirer*, July 3, 2005.
- ⁵⁴ Christopher Lubienski, "Charter School Innovation in Theory and Practice: Autonomy, R&D, and Curricular Conformity," in *Taking Account of Charter Schools*, eds. Katrina E. Bulkley and Priscilla Wohlstetter (New York: Teachers College Press, 2004), 85.
- ⁵⁵ David B. Tyack, *Turning Points in American Educational History* (Waltham, MA: Blaisdell Publishing Company, 1967).
- ⁵⁶ Paul J. DiMaggio and Walter W. Powell, "The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields," *American Sociological Review* 48, no. 2 (April 1983), 148.
- ⁵⁷ Howard Aldrich, *Organizations and Environments* (Englewood Cliffs, NJ: Prentice-Hall, 1979).
- ⁵⁸ Paul J. DiMaggio and Walter W. Powell, "The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields," *American Sociological Review* 48, no. 2 (April 1983), 150.
- ⁵⁹ John W. Meyer and Brian Rowan, "Institutionalized Organizations: Formal Structure as Myth and Ceremony," *The American Journal of Sociology* 83, no. 2 (September 1977).
- ⁶⁰ Karl E. Weick, "Educational Organizations as Loosely Coupled Systems," *Administrative Science Quarterly* 21, no. 1 (March 1976)
- ⁶¹ John W. Meyer and Brian Rowan, "Institutionalized Organizations: Formal Structure as Myth and Ceremony," *The American Journal of Sociology* 83, no. 2 (September 1977), 343.
- ⁶² John W. Meyer and Brian Rowan, "Institutionalized Organizations: Formal Structure as Myth and Ceremony," *The American Journal of Sociology* 83, no. 2 (September 1977).
- ⁶³ John W. Meyer and Brian Rowan, "The Structure of Educational Organizations" in *Environments and Organizations*, ed. Marshall W. Meyer (San Francisco: Jossey Bass, 1978).
- ⁶⁴ David B. Tyack, *Turning Points in American Educational History* (Waltham, MA: Blaisdell Publishing Company, 1967).
- ⁶⁵ Samuel Bowles and Herb Gintis, *Schooling in Capitalist America* (New York: Basic Books, 1976); Martin Carnoy and Henry M. Levin, *Schooling and Work in the Democratic State* (Stanford, CA: Stanford University Press, 1985).