

THE EDUCATION CRISIS:  
BUSINESS AND GOVERNMENT'S ROLE IN REFORM

by

CARLETON S. FIORINA

A.B. Stanford University  
(1976)  
M.B.A. University of Maryland  
(1980)

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SIGNATURE OF AUTHOR: \_\_\_\_\_

Alfred P. Sloan School of Management  
May, 1989

CERTIFIED BY: \_\_\_\_\_

John E. Van Maanen  
Professor, Organizational Psychology  
and Management  
Thesis Supervisor

ACCEPTED BY: \_\_\_\_\_

Alar F. White  
Associate Dean for Executive Education

MASSACHUSETTS INSTITUTE  
OF TECHNOLOGY

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ABSTRACT

Educators, policy makers and corporate America seem to agree that our education problems have reached crisis proportions lately. Never before have educational issues received so much media attention or visible corporate support. Despite this attention, the vastness and complexity of educational issues confound simple analysis.

The objective of this thesis is to develop an intelligent and comprehensive framework within which to understand and evaluate education problems as well as proposed solutions. The thesis is comprised of three main parts.

Chapter II examines the facts which lie behind our current perception of crisis and demonstrates that our educational problems are of a consistent and long term nature. Chapters III and IV provide an analysis of the fundamental political, social and cultural realities which underlie the American approach to education as well as the governing assumptions which have directed our reform efforts throughout the last century. The intent is to focus on the real causes of educational failures rather than their symptoms.

With this analysis as background, Chapters V and VI contain the author's assessment of the roles which both business and government have played in educational reform to date, and recommend the types of activities which are likely to be of most benefit.

Thesis Supervisor: Dr. John E. Van Maanen  
Title: Professor of Organizational Psychology  
and Management

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## CHAPTER I: INTRODUCTION

Education is a hot topic these days. The media is full of by now depressingly familiar statistics about SAT scores and high school drop-out and literacy rates. Educators decry our children's lack of basic skills in math, science, English and foreign language. Corporate leaders are seemingly unanimous and vocal in their belief that American productivity, as the key to continued economic success in an increasingly competitive world, is endangered by the failures in our educational system. And of course, we now have an "Education President" - after both political parties claimed education as a chief priority of their election platforms.

This thesis began with both a personal desire and a personal bias. My desire was to understand the broad dimensions of the "education crisis": do we in fact have a crisis; what has contributed to its existence; and what problems should we be trying to solve. My curiosity about these issues originated in frustrated fascination. How could a country with arguably the finest university system in the world, one that attracts many foreign students in addition to American ones, be failing to adequately educate the vast majority of its own high school students?

My personal bias towards the subject was that business can and should play an ever-increasing role in educational issues; not only as a matter of vital self-interest, but also for the nation's interests.

Education is a vast subject; I therefore began my research with a number of limiting decisions. The first was to concentrate my efforts on secondary, rather than either elementary or post-secondary education. This is not to suggest that these are without problems. Elementary education for example is receiving increasing scrutiny as policy makers highlight the need for curriculum reforms and positive interventions on behalf of minority and disadvantaged children as early as possible in the schooling process. And university life has been the subject of several recent, controversial attacks (including The Closing of the American Mind by Allan Bloom and ProfScam by Charles Sykes), although higher education has historically been the largest beneficiary of corporate giving to education. [1] There is now general consensus, however, among educators and businessmen alike, that it is America's secondary schools that are in serious trouble, as evidenced for example by drop-out rates that have soared to almost 60% in certain inner-city school districts like Chicago and minority drop-out rates that

far exceed national averages (the national average for Hispanics hovers at 40%). [2] Both government budget and corporate dollars are flowing from higher to secondary education as a result of this realization. [3] High schools after all, represent the school system's last chance to prepare many of those young people considered most seriously at risk for a productive life. And it is our high schools that pose the gravest dilemmas to policy makers and administrators as they attempt to grapple with the myriad of agendas and objectives the school system is meant to accomplish.

Second, I have concentrated on public schools as opposed to either private or vocational institutions. Americans are alarmed by the lack of educational achievement of the general population. Private schools, by design, are not intended to address this problem, although they clearly contribute to the level of education in the population as a whole. For their part, vocational schools primarily provide training in technical skills as opposed to basic learning skills. Although vocationalism is discussed in Chapter III, it is in the context of its impact on high school curriculum.

Finally, I have chosen to pursue some very personal goals in this thesis. This document is neither an

exhaustive analysis of the education problem, nor an in-depth, statistical description of it. It is an attempt to answer some very specific questions to my own satisfaction. These questions include:

- Is "the education crisis" new?
- Is it unique among industrialized nations?
- Is it newly discovered?
- How have we viewed education in this country? What have we expected of public secondary education?
- How have we in the past, and how are we now dealing with the problem? Has it worked? Why or why not?
- What roles have government, business and education played in resolving the problem?

I have deliberately chosen a comparative methodology to address these issues. I have always had a preference for the historical perspective, either as a matter of training, or because of a belief that history really does have something to tell us. If, for example, our education "crisis" is not new, nor newly discovered, why have we failed in the past? Are there systemic, deeply rooted problems which are long-term in nature and have remained resistant to our efforts? I have therefore examined the recent history (forty years) of educational efforts and reforms. I was also curious to compare our record with those of other OECD nations (France, Italy, Japan, Sweden,



West Germany and the U.K.); not only to discover whether our problem can be considered unique, but also because it is our own economic performance as measured against these other nations which has caused American business to become so alarmed.

Chapter II provides evidence that the education "crisis" is neither new, nor unique, nor even newly discovered. In short, it is not a crisis in the sense of a sudden calamity. America has had an educational problem, whether measured by SAT scores, high school drop outs, math competence, or youth unemployment, for at least 30 years. Other industrialized nations are all becoming increasingly concerned by the decline in education quality within their own schools. American business and government leaders, as well as educators, have become vocally involved at other moments of "crisis" at many other points along the way.

Chapters III and IV take an in-depth look at the particular issues facing the American secondary school system. Chapter III examines those policy trends which have characterized our approach to education. Chapter IV contains my assessment of the results of these trends - and defines the political, social and cultural assumptions underlying the American approach to education and

against which all reforms of our educational system must be considered. These core assumptions are frequently overlooked in reform efforts; in my view, however, they must be systematically re-examined and realistically re-assessed if we are to make real progress.

Although other nations face similar problems, ours have some unique causes and consequences. Special attention is paid to the objectives which education is designed to address in this country, and our success in meeting them. A recurring theme throughout these sections is that education has been seen as a means to many, often conflicting ends. It is frequently these other ends that have been national policy goals, rather than education itself. The intent of these chapters is to help explain why the statistics by which we measure our educational achievement remain remarkably resilient to our efforts, despite a succession of Presidents, both Democratic and Republican, declaring education to be a national priority.

Chapters V and VI focus on the role of business and government in education reform. Chapter V examines the types of activities business has supported and provides some normative recommendations as to the role business should continue to play. This chapter also develops a rationale for a broader federal government role in

education. Chapter VI examines the role of the Federal Government over the last several decades and further develops the framework of what, by this author's standards, is the appropriate nature of that role. Chapter VII contains some final conclusions and remarks as to the continuing commitments educators, policy makers and business people alike must make if we are serious about resolving the education crisis.

My research has taken me on a frequently unpredictable, always fascinating, odyssey. Like most good journeys, I did not end up quite where I thought I would, nor did I take the path I thought I might. Where I had anticipated concluding that business must play an ever-growing role if we are to adequately address the education concerns of our nation, I have ended by deciding that although business can and must play a vital role, it also must be necessarily limited. Where I had begun as a proponent of "States' Rights" in education, I have ended by believing that we will never meet our own expectations of public education unless the federal government is willing to play a consistent, long-term role; unless education truly becomes a matter of national policy, not just a matter of national rhetoric.

Nevertheless, my goals have remained the same: to

develop an intelligent opinion of the causes of our problems, and to suggest the respective actions that government, educators, and particularly business should take to solve them. Clearly what follows is one individual's assessment of a limited body of evidence - and thus, highly debatable. To believe that this effort describes "the solution" to the problem would be both presumptuous and naive. It is my hope however, that this work is at least provocative of both thought and insight.

NOTES TO CHAPTER I

- [1] "Charity: Americans Give . . .", The Economist, January 28, 1989, Volume 310, Number 7587, p. 27.
- [2] "Retooling the Schools", The Wall Street Journal Reports, The Wall Street Journal, March 31, 1989, p. R-12.
- [3] Ibid., p. R-12.

## CHAPTER II: THE SOBERING FACTS

"Historical analysis cannot provide tidy lists of lessons from the past by which to evaluate [education] policies. To be successful, remedies must be specific to time and place, and they must be sensitive to context. Some current proposals however . . . give a feeling of deja vu, a sense that some policy makers may be recycling old solutions to problems that have proven resistant . . . " [1]

Everyone appears to agree that our education problem has reached crisis proportions recently. The term is used to galvanize public attention and support, encourage corporate gifts of money and time, and persuade voters of presidential hopefuls' sincerity. Webster's Dictionary defines "crisis" as a turning point or decisive moment; a paroxysmal attack of disordered function; and a radical change of status. Crisis implies a sudden newness.

Businessmen, educators and policy makers are alarmed by what they perceive as a widening of the gap between required and possessed skills in the workforce, by declining SAT scores, by the relatively poor performance of American students as compared with those of other countries, by national drop-out rates approaching 25%, and by students' lack of preparation in basic skills, including math, science, and foreign language. They are concerned

by spiraling rates of youth unemployment, especially among disadvantaged inner-city youth.

The purpose of the following discussion is not to imply these are not very serious problems. Quite the contrary, it is to suggest these problems are more deeply-rooted and long-standing than the term "crisis" implies. They are issues that have plagued us for decades, as an examination of recent history attests; issues that have remained with us despite solutions proposed years ago; solutions that sound eerily reminiscent of policies suggested today.

Consider the following facts:

-- In January, 1989 President Bush, in his inaugural address to the nation, declared himself dedicated to re-establishing excellence in education, to making education a national priority. As part of this mission, the President has recommended funding in his proposed budget to provide national recognition and financial reward to excellent teachers, school administrators and students, of both vocational and public secondary institutions. The President cited American youth's lack of basic skills in math, science, English and foreign language and declared that America's future economic growth depended on

upgrading America's schooling - on adequately preparing American youth for a productive role in society. The Bush budget devoted over a tenth of its pages to new education proposals, including funding for "merit" schools that improve performance and "magnet" schools that attract students with special curricula. (It is interesting to note however, that the 1990 budget in fact proposes some \$200 million less for education than did the last Reagan budget, and that the \$440 million proposed for new education programs represents a tiny percentage of the total federal budget.) [2]

-- On August 11, 1984, declaring that "excellence in education has become a national priority", President Reagan signed into law the Education for Economic Security Act. Included in the legislation were programs for the support of mathematics and science education, skills that were considered essential to the nation's economic security. [3]

-- In 1981, Secretary of Education Terence Bell declared that the number one goal of the Department of Education was to "provide leadership and advocacy for a nationwide campaign on excellence and improved quality in education."



[4] The Secretary commented that "recent publicity in newspapers and other media has drawn much attention to the decline in quality of American education." [5] Stating that "excellence in education has become a national priority," [6] Secretary Bell established the National Commission on Excellence in Education in August of 1981. The Commission's report, the widely acclaimed "A Nation At Risk: The Imperative for Educational Reform", was published in 1983. When the report was presented at the National Forum on Excellence in Education in December, 1983, Secretary Bell challenged State and local educators and policy makers to achieve the following goals:

- By 1989, all high school graduates should study English for 4 years, and study math, science and social studies for 3 years;

- By 1989, the same percentage of students who enter college (approximately 55%) [7] should complete two years of foreign language;

- By 1989, SAT scores should have surpassed 1985 scores;

- Every state should decrease its drop out rate so that none will exceed 10%;

- "Every state will make teaching so attractive that entry level college graduates' salaries will be

competitive with the average entry level salaries of college graduates with degrees in business and engineering." [8]

All these goals remain elusive, as President Bush's proposed programs so eloquently attest.

-- In 1980, President Carter requested that the Department of Education join the National Science Foundation in preparing a detailed report on the state of science, mathematics, and engineering education in the U.S. Among other findings the report noted the existence of immediate and severe shortages of mathematics and science teachers in secondary schools, and the resulting poor achievements of American students in these fields. [9] Secretary of Education Shirley Hufstедler noted in the Department's first annual report (the Department having been created in October, 1979 from the old Office of Education within the Department of Health, Education and Welfare), that "it will not be possible to keep the United States in the forefront of technology and science without a national education effort at least as strong as that undertaken following Sputnik." [10]

During 1980 President Carter also formed a Commission on Foreign Languages and Area Studies. The Commission

reported: "America's incompetence in foreign languages is nothing short of scandalous, and it is becoming worse - a serious deterioration in this country's language and research capacity at a time when an increasingly hazardous international, military, political and economic environment is making unprecedented demands on America's resources, intellectual capacity, and public sensitivity."

[11] President Carter also, like both Reagan and Bush, described it as his goal "to reestablish education in the forefront of our domestic priorities." [12]

-- Encouraged by the War on Poverty and the Civil Rights movement, the 1960s and 70s were periods of massive investment in education at the local, state and federal level. By the late 70s, federal funding was distributed through 160 separate entitlement programs (versus for example, the five block grant programs existing today). 1978-1980 represents the high water mark of federal funding for education (10% of the total spending on education as compared to 6% today), and the largest contribution (both in absolute terms and as a percentage of GNP) to education of any industrialized nation. [13] These decades represented a period of intensive educational reform, not matched before or since in terms

of total dollars committed or programs instituted. The primary motivation behind these efforts was a belief in the power of education to alleviate poverty, and a desire to prepare all young people, regardless of race, sex or economic circumstances, for a productive life in society by ensuring their mastery of basic skills.

In the early seventies, faced with declining SAT scores across the country, a widely publicized "Back to Basics" campaign was launched, focused primarily on inner-city youth, whom educators feared were being left behind.

[14]

-- In 1958, the Rockefeller Foundation funded a panel to examine "America at Mid-Century". The panel's report, entitled "The Pursuit of Excellence: Education and the Future of America", commented on the low levels of math and science achievement by American students, the generally low academic standards and graduation requirements in secondary schools, and cited the need for improvement in teaching quality at both the primary and secondary levels. [15] This 1958 report is even cited in "A Nation at Risk" as providing evidence supportive of the Reagan Commission's findings. [16]

As a result of both this report and the Russian

launch of Sputnik, the National Defense Education Act was passed in 1958. The Act set aside funds to promote those skills deemed necessary to the national defense, particularly science, engineering, mathematics and foreign language. [17]

-- Throughout this entire period, corporate contributions to education climbed steadily, peaking in 1979 with annual giving of \$5 billion. Since then, absolute contributions to education have fallen, as has corporate philanthropy in general. At its peak, corporate giving represented about 3% of the total \$130 billion spent on education nationally. Also beginning in 1980, corporations began giving more to secondary schools than either universities or vocational institutions. [18]

The business community's participation on education panels and commissions is a time-honored tradition, dating back at least to 1917, when the first vocational education legislation (the Smith-Hughes Act) was passed. [19] Although, as we will discuss in subsequent chapters, the specific nature of corporate involvement has changed somewhat in the eighties (Adopt-A-School programs, for example, being fairly recent innovations), the business community has been galvanized to speak out on education

issues by the Sputnik crisis in the fifties, the War on Poverty of the sixties, the Comprehensive Employment and Training Act (CETA) and Youth Employment and Demonstration Projects Act (YEDPA) of the seventies, as well as our nation's competitive performance in the eighties. [20]

-- The national average drop-out rate of high school students (those students who begin high school but do not complete it) was 40% in 1954, 23.7% in 1964, and 25% in 1980. It remains at 25% today. [21]

-- Math and science achievement, as measured by the Scholastic Aptitude Tests (SATs) has declined steadily nationwide for over 25 years, as measured in 1963, 1969, 1973, 1977, and 1981. SAT scores in general, after a period of modest recovery in 1984 and 1985, fell again in 1988. [22]

-- The International Association for the Evaluation of Educational Achievement (IEA) conducted studies comparing educational achievement across OECD nations from the mid-sixties through the early seventies, and again in 1983. On a national basis, American students performed the worst of any nation in both math and science in every year in

which the test was conducted. [23] The Second International Math and Science Studies (SIMS and SISS) conducted in 1981-82 and 1983-1986 respectively, confirmed these results as compared to students in Japan, Hong Kong, England, Wales and Sweden. [24]

If America's education problem is that over one-quarter of this country's students never finish high school, then America has had a problem for almost 40 years. If the problem lies in our students' mastery of basic skills believed essential to a productive workforce, then again, we have had a problem for at least three decades. If our concern is our children's performance on basic aptitude tests as compared with the performance of children of other nations, then our concern has been long-standing.

Unfortunately these problems have persisted despite the efforts of well-meaning politicians, both Democratic and Republican, to declare education a national priority. They have persisted despite the passage of national laws, the spending of billions of dollars of public and private funding, the cries that the nation's defense and economic security are at risk, and the well-documented reports of blue-ribbon commissions. In short, for business or

community leaders, politicians or educators to believe that education in the 1980s and beyond represents a new, or a newly recognized, problem is naive. Is it possible we are dealing with symptoms rather than causes? Are we attacking problems without an understanding of the political, social and cultural realities lying behind them? Are we proposing solutions which are either ineffective or cannot be implemented?

Of course it is an over-simplification to refer to "the problem", for it is not a singular issue we have been trying to address. What we have meant by the "education crisis" is not simple to define or categorize. It is not, for example, simply the lack of mastery of basic skills. The dimensions of the problem have changed over time, as have our perceptions of it.

Take, for example, issues surrounding those who fail to graduate from high school. The statistics cannot capture adequately that a 40% drop-out rate in the 1950's is not the same as a 25% rate in 1988. The first and most obvious difference is that the job market has changed considerably. Where there were plenty of respectable job opportunities in the fifties, even for those who did not finish high school, such is no longer the case in the eighties. In a booming economy, failure to finish high



school in earlier decades did not guarantee later failure in life. [25]

The second difference lies in the make-up of the statistic itself. Although the young people who did not complete high school in the fifties came primarily from the lower socio-economic strata of society, the differences between this group and the rest of the population were not as stark as they now, in part because America was a more homogeneous society than it is today. In the 1980's, those students who fail to complete their schooling are concentrated among minority youth - including black, Hispanic, and increasingly Central American immigrants - in America's inner cities. [26]

These facts surrounding drop-outs point up some of the painful dilemmas involved in all education policy. The United States, with its political heritage of equal opportunity, has always sought to ensure that none are left behind - that our emphasis on instilling basic skills for example includes all children. However, widened access to education - which the policies of the sixties and seventies certainly achieved - has three consequences. First, as more and more children receive schooling, the position of those in society who do not is highlighted. Second, credentialing sets in; that is, a high school

diploma becomes a minimum requirement for employment, and thus further curtails the choices of those students who cannot achieve this certificate. Third, widened access to education results in increasing expectations as to the economic rewards of such access. Although in expansionary times these expectations can be met, they are difficult to reconcile when economic conditions change and labor markets tighten, particularly if those markets are complicated by discriminatory policies, directed at either youth in general, or minorities in particular.

We will return to a more in-depth discussion of these issues in Chapters III and IV. For our purposes here, the point is that the "education crisis" in this country is older than the eighties, more complex than "Back to Basics", and more difficult to remedy than recent declarations of discovery imply.

Nor is our problem unique. School systems vary across industrialized nations. Sweden and Canada for example have, like the U.S., placed great emphasis on equal educational opportunity. School systems in Japan, France, England, West Germany and Italy are characterized by clear delineations, at fairly early ages, between "purely academic", more general, and purely vocational schooling. Selection of students for each of these types

of schooling is designed to be merit-based. [27] None of these systems however is immune from the kinds of problems faced in this country. (The drop-out rate in Canada, for example, approaches 38%. [28]) Nor is there any significant correlation between national levels of educational achievement and the type of school system. In the IEA studies, for example, England and Sweden had the highest scores for national performance on math and science testing. England's school system is highly divergent, with a well-established hierarchy of private ('public'), government-funded and vocational schools; Sweden's is highly egalitarian. [29]

Illiteracy and lack of basic numbers skills are problems faced by all OECD nations, with the possible exception of Japan. At the 1984 OECD Conference on Education held in Paris, widespread concern about the declining quality of education was expressed by all member nations. Much of the conference was spent discussing falling academic standards and graduation requirements, and there was widespread agreement that teachers are not adequately prepared, trained or compensated. [30]

Likewise all nations, including Japan, commented on the inability of their school systems to break the existing socio-economic stratification of society:

"Despite the widening of educational access to less privileged students, the disparities in educational success and failure between the upper and lower strata remain very marked. Many more university students are still drawn from middle and upper class backgrounds, just as the early school-leaver tends disproportionately to be of working-class origin or a second-generation migrant or of a cultural minority. . . All member countries, including Japan, commented on a halt, or even reversal in the progress achieved since the mid-1970s." [31]

Evidence across a broad range of conditions and countries seems to confirm that no matter how great the stress placed on equal educational opportunity, all school systems to some extent reinforce the existing economic hierarchy. [32]

"This is not to underestimate the difficulty confronting educational policy in improving the position of the least advantaged. Not only are the more advantaged better placed to profit from available opportunities and actively seek to maintain that advantage. But educational policy is caught in the dilemma of attempting to extend opportunities and qualifications to as many youngsters as possible, but in the process leaving those who do not succeed further behind still. The broadening of access to education, and the degree to which the least successful can accordingly be easily identified, may mean that education systems are actually serving to make initial disadvantage more determinate and difficult to escape." [33]

Structural unemployment and the creation of a "dual work force" are also problems for these countries. As a result, more emphasis is being placed on the preparation for working life during compulsory schooling. This is

true even in those nations such as Austria, France, and Germany, where traditionally from 50-65% of the 16 to 19 year old students are enrolled in vocational training.

[34] With its large and growing migrant workforce, West Germany in particular, like the U.S., faces a serious problem of educating immigrant children who cannot speak the native language but who nevertheless must somehow be integrated into the school systems. [35] Also like the U.S., Germany is finding that bi-lingual educational programs present painful dilemmas. For example, separating immigrant children from native English or German speakers may speed up comprehension of facts and mastery of skills, but may also serve to stigmatize these children and reinforce negative stereotypes and prejudices - thus delaying and making even more difficult their eventual re-integration into the mainstream. Targeting these same students towards vocational training only further separates this segment of the population and solidifies its position at the lowest levels of society.

The issue of vocational training and its history in this country is one to which we will return. However, the point here is that a well-developed vocational sector such as exists in much of Western Europe, does not, in and of itself, seem to solve the problems of youth unemployment

and the creation of an "underclass".

Finally, all industrialized nations face the educational dilemma presented by declining job opportunities. Education leads to upward mobility and greater employment when jobs are available. The expectations created by longer periods of schooling are more difficult to meet when labor markets are constrained.

"In most Western nations, education officials have failed to reconcile the increased demands for access to higher education with the limited supply of . . . positions in a recessionary economy." [36]

The purpose in pointing out those aspects of our education problems shared by others is not to minimize the issue. Indeed, the fact that similar conditions exist in different settings complicates our understanding of the situation. And it is important to realize, as more and more business leaders jump to blame the educational system for our nation's declining economic performance and work force productivity, that those against whom we compete are not immune to the problems we face.

### Conclusion

The "education crisis" in America is a more complex, long-standing and wide-spread issue than a cursory review of the media would suggest. It is a problem that has

captured time, attention and money in this country, as well as others, for decades. Yet the sad truth is that despite the much bally-hoed "educational reform movement" of the last five years, or any other reform movement of the last three decades; despite the fact that almost every state has raised curriculum or promotion requirements in the last decade and increased its real level of spending on education by an average of 29%; the tide of educational mediocrity has not appreciably turned. [37]

This is not to suggest there has not been progress, or that the situation is hopeless. However, it does mean that real solutions require real understanding. Effective action, whether on the part of government, business or educators, requires a realistic assessment of what has gone before, and a willingness to grapple with all the dimensions of the problem, not just its symptoms. Most of all, it requires an acceptance that education reform is a long-term challenge which demands a long-term commitment. There are no quick fixes. For America, obsessed as we are by four year election cycles and quarterly earnings, this may be the greatest challenge of all.

NOTES TO CHAPTER II

- [1] Harvey Kantor and David B. Tyack (eds.), Work, Youth and Schooling: Historical Perspectives on Vocationalism in American Education, Stanford, CA: The Stanford University Press, 1982, p. 13.
- [2] "Doing Without Money", The Economist, February 25, 1989, Volume 310, Number 7591, p. 25.
- [3] U.S. Department of Education, Annual Report, Washington, D.C.: Government Printing Office, Fiscal Year 1984, p. 3.
- [4] U.S. Department of Education, Annual Report, op. cit., Fiscal Year 1961, p. 1.
- [5] Ibid., p. 2.
- [6] Ibid., p. 3.
- [7] Charles F. Andrain, Social Policies in Western Industrial Societies, Berkeley, CA: Institute of International Studies, University of California Press, 1985, p. 74.
- [8] U.S. Department of Education, Progress in Education in the United States of America 1980-81 through 1982-83: Report for the 39th International Conference of Education, Washington, D.C.: Government Printing Office, June, 1984, p. 5.
- [9] U.S. Department of Education, Annual Report, op. cit., Fiscal Year 1980, p. 6.
- [10] Ibid., p. 11.
- [11] Ibid., p. 12.
- [12] President Carter's Education Message to Congress, February, 1978, as quoted in U.S. Department of Education, Annual Report, op. cit., FY 1980, p. 12.
- [13] The Organization for Economic Cooperation and Development, Education in Modern Society, Paris: the OECD Press, 1985, p. 93.



- [14] The Organization for Economic Cooperation and Development, Education Policy and Planning: Compensatory Education Programs in the United States, Paris: The OECD Press, 1980, p. 34-35.
- [15] Progress in Education in the United States of America, op. cit., p. 38.
- [16] Ibid.
- [17] Education Policy and Planning: Compensatory Education Programs in the United States, op. cit., p. 22.
- [18] "Americans Give . . . ", The Economist, January 28, 1989, Volume 310, Number 7587, p. 27.
- [19] W. Norton Grubb and Marvin Lazerson, "Education and the Labor Market: Recycling the Youth Problem", in Kantor and Tyack, op. cit., p. 119.
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### CHAPTER III: THE POLITICAL REALITIES

We move now to examine the particular policies that have characterized this country's educational system, and thus constrain and shape our approach to education problems. We begin this chapter with a statement of goals for our educational system, and then provide a more precise description of the current perception of America's education problem. Next, we examine the political trends that have dominated our discussion of educational issues throughout the twentieth century. Chapter IV provides a detailed discussion of the results of these policies as they affect our current ability to address education issues.

Most people would agree, at least on a theoretical level, that schooling should meet the following objectives:

- the transmission of a particular society's dominant norms and values;

- the development of both cognitive and technical skills. Technical skills include literacy and basic mathematics. Cognitive skills, or conceptual thinking, are those used to solve problems. They include the ability to process information in an abstract way, to ask intelligent questions, to synthesize data, to generalize from evidence, to draw and evaluate conclusions, and to link facts to principles; and,

- the preparation of youth to play productive

adult roles in society, whether economic, political or social. Children learn specific skills as well as those normative expectations concerning the rights and duties associated with diverse adult roles. [1]

Educational debate generally centers around several common themes. How are priorities or goals to be set? Which adult roles and values should be prepared for and taught? Who should participate in this kind of education? We will return to these issues again but the important point here is that a nation's answers to these three questions form the basis of national education policy. Changes over time in how these questions are answered form the basis of educational reform.

It is important to put America's education problems in perspective. First, despite all the horrific statistics provided in the preceding chapter, the fact remains that more young people are college-educated in this country than anywhere on earth. Fully 60% of our children go on to attend college, as compared with 37% in Sweden, 36% in Canada, and 27%, 26%, 25% and 20% respectively for Italy, West Germany, France and the U.K. [2] (Such comparisons can, however, be misleading. In many countries, most notably England and Japan, the final two years of what we would consider secondary education are equivalent to the first two years of a college education in this country. In Japan for example, almost

95% of the students go on to attend "upper secondary" schools, but around 31% attend university per se. [3]) In other words, the vast majority of American students who complete high school (approximately 75%) will continue their education. This highlights the fact that despite our current pessimism, the educational expansion programs of the 1960s and 70s have resulted in some genuine achievements. Many more students from poorer backgrounds have enjoyed further and higher education than their mothers and fathers did only a generation before. [4]

Second, our top-performing students are competitive with the top-performing students in other industrialized nations. Although the top 4% of American students are out-performed on standardized math and science tests by Japanese, Swedish and English students, our young people perform better than a comparable sample of Italian, West German or French students. [5] Our problem then, on a comparative basis, lies in our average, national levels of educational attainment, not the achievements of our best performing students. Indeed, when comparisons are made between this country's schooling system and that of Japan, it is this average educational attainment that is cited. The Japanese system is admired for its uniformity:

"The great accomplishment of Japanese primary and secondary education lies not in its creation of a brilliant elite (Western nations do better with their top students), but in its generation of such a high average level of capability. The profoundly impressive fact is that it is shaping a whole population . . . to a standard inconceivable in the U.S." [6]

Against this backdrop, we now must attempt to more precisely define the charges currently being made against our educational system. First, on a broad-based level, Americans believe that the skills being taught in our schools are inadequate to properly prepare young people for tomorrow's workplace. Lack of basic literacy and numeracy skills are of course included here. But, increasingly, business leaders and educators are bemoaning not just whether a student can read, write and add, but how well. For example, in math and science studies, educators complain that students merely learn facts rather than comprehend principles. Less than 10% of American students ever study higher-order mathematics such as calculus, compared to almost 50% in Japan. [7] And the Hudson Institute, in a widely distributed report entitled "Workforce 2000", claims that most students graduating from high school today can read only 100-200 words per minute and have a vocabulary of under 6,000 words. The report goes on to conclude that these students will not be

competitive for most jobs in the year 2000, which will demand a higher level of skill. [8]

The concern expressed in this report and others like it is that even if a student graduates from high school with a mastery of the basic requirements, most jobs will require minimum skill levels which surpass those needed for graduation. Included in this debate is the issue of whether "computer literacy" is a new minimum skill requirement in an increasingly technologically complex society.

Second, schools are being charged with a failure to effectively transmit and instill "productive values" - values such as discipline, thrift, sexual morality, the "work ethic" etc. Politicians and educators as well as business people point to the drug problem, teenage pregnancies, and a perceived decline in the "work ethic" as evidence of the school system's failures in this area. President Reagan for example cited the restoration of discipline and an end to the problems of drug and alcohol abuse as his top two priorities for education in the eighties. [9]

These issues are exacerbated because the school systems, despite great progress, still do not reach all groups equally. The current alarm over the high-school

drop out rate is a more subtle issue than it may first appear. Careful examination of the record indicates that it is less the number of students who fail to graduate which causes concern, and more a matter of who drops out. The issue is not that corporate leaders have more jobs for young people than they can fill. In fact, youth unemployment is high and yet America still remains the most credentialed society in the world, with college-educated young people now holding jobs for which their college-learned skills are largely irrelevant. [10]

Decrying the drop-out rate is a short hand way of expressing alarm about those with whom public school systems have historically been least successful. School leavers are concentrated among poor, minority and immigrant youth, particularly in the inner cities. These same groups form an increasing percentage of the available work force each year. The total number of 18 year olds is declining and will reach its lowest point in the mid-1990s. At the same time, however, racial and ethnic minorities will form an increasing proportion of the school-age population as the Black and Hispanic baby boom continues. In other words, more workers than ever before will come, at a growing rate, from those groups where educational achievement has historically been the lowest.



Our school systems, by almost any measure, have been most successful in educating white males. By the year 2000, this group will comprise less than 8% of the entering workforce. [11]

Likewise, concern over the quality of learning is inextricably linked to the growing diversity of the American population. Females, Blacks and Hispanics, all of whom will form an ever-increasing proportion of the workforce, on average score lower than white males on both the math and verbal portions of standardized aptitude tests. Each of our 24 largest school systems currently has a "minority majority". And by the year 2010, one in three Americans will be Black, Hispanic or Asian American. [12] In other words, school systems must find ways to reach more and more of those students with whom they have had least success.

These then, in my view, are the fundamental issues underlying the current education debate: Are we teaching the right skills? Are we instilling appropriate values? and Are we teaching those whom now we most need to teach? How we answer these questions today is heavily influenced by how we have answered them in the past. We turn now, therefore, to a discussion of three important political and social realities that have shaped our thinking about

education.

### Decentralization

The U.S. Constitution holds that those responsibilities not specifically mentioned as the Federal Government's are reserved to the States to carry out. Education, unlike defense of the nation, for example, is one such responsibility. The reasons for this omission are unclear. Perhaps, given the culture of the time, education was not considered an essential ingredient in the preservation of life, liberty and the pursuit of happiness. Whatever the reason, this fact has had an enormous impact both on how our educational system has evolved, and the nature of the Federal Government's involvement in education issues.

From the founding of this country until 1950, education was almost purely a matter of State and local jurisdiction. (The one exception to this was the Supreme Court's ruling in 1896 in the Plessy v. Ferguson case that states had an obligation to provide "separate but equal" educational facilities to black youth.) The result is an educational system that is the most diverse and pluralistic in the world.

The educational infrastructure of this country - that

is, the organization of school boards and school districts, both state and local, administration practices and procedures, funding requirements, and curricula as well as teaching certification - is characterized by stunning variety. Each state establishes its own curriculum through the selection of graduation requirements, textbooks, and the development of minimum competency exams, as well as determines teacher's training and certification requirements and pay scales. The degree of autonomy and discretion local school boards can exercise within the guidelines established by the state varies tremendously across the country. Without exception, both state and local school board officials are elected; these officials then appoint school administration.

It is important to grasp the full meaning of the term "decentralization" as used here. It does not mean, for example, that a central authority exists but decision-making responsibility has been delegated. There is no central authority for education at the national level in this country. The highest legal authority resides with each of the fifty states, and those authorities are elected by popular vote. Educational reforms must be legislatively enacted. Reform of any kind, therefore,

requires consensus at the grass roots level and must achieve a majority vote.

Our educational system is in very real ways the essence of participatory democracy. Educational reform and goals are in large part determined by the citizenry. Schools, by specific intention, are designed to reflect and serve the particular values and needs of the local community. Diversity of approach has always been viewed by most parents and educators as a positive and unique attribute of the American system. Nationally standardized curriculums or graduation requirements, such as exist in Japan, are simply not possible within such an infrastructure.

Three rather obvious outcomes flow from decentralization. First, school officials are subject to political pressure that is close to home. Therefore, educational issues are greatly influenced by the nature of special and local interest groups, pressure from local employers and funding, whether provided by private philanthropy or tax initiative. Second, and as a result of this politicization, consensus on issues is difficult to achieve even on a state level among local school districts, much less on a national level among states. As our society grows increasingly pluralistic, this

difficulty will intensify. Finally, the involvement of the Federal Government in education issues has been carefully limited so as not to curtail appropriate state authority and justified as necessary to achieve a certain "over-riding" national goal. That goal has been equal opportunity.

### The Federal Role: Equal Education Opportunity

The Federal Government's activist role in education dates back to the 1950 Supreme Court case of Brown v. Board of Education of Topeka, Kansas. With the Court's decision that the earlier Plessy v. Ferguson "separate but equal" prescription was in essence a conflict of terms, the stage was set for the increasing involvement of Federal Courts in local education matters. The desire to ensure implementation of these Courts' decisions provided the impetus and the rationale for a burgeoning federal government role. [13]

Equality of educational opportunity for all Americans served as the justification for the federal government's intrusion into what was legally a state issue.

Lyndon Johnson's War on Poverty provided further theoretical foundation for what became a massive build-up of federal funding and programs. "Human capital" theories

were resuscitated to underscore the potential for education to alleviate poverty. A skilled work force (human capital) was as necessary to productivity as modern technology. Such an asset must be invested in to achieve its potential. Government funding of education would therefore result in higher income through increased productivity. Thus, education could correct imbalances in society's economic stratification. Upward mobility for disadvantaged youth could be achieved through equal employment opportunity, which in turn depended on equal educational opportunity.

The Federal Government's role during the late 60s and early 70s was to develop specific programs and provide funding in support of equal opportunity. It is important to understand both the breadth and the limits of this involvement. 160 separate entitlement programs aimed at assisting minority and disadvantaged youth existed by 1979 and their achievements are undeniable and impressive. But they also defined a very specific role for the federal Office of Education. Its job was to remedy inequities by ensuring that those who ordinarily would have received less were given more. Its job was most definitely not to interfere in school curricula, administration, teaching methodologies or student testing. [14] Where programs are

perceived to impinge on state and local authority in these matters, they have failed. The proposed Lau regulations, for example, which provided funding for bilingual education, were withdrawn in January, 1981, because they "would have been a major step toward federal determination of curriculum and teaching methodology". [15]

Initial program efforts took "equal education opportunity" quite literally - the opportunity to receive an equal education. Thus, funding was directed so as to ensure equal access to equal education facilities - ensuring that all children were enrolled in schools of roughly equal endowment. Attention during this period thus focused on the inputs of education - numbers of dollars, books, teachers, audio-visual learning aids, etc. "Success" was proven by demonstrating the equality of these resources across a broad sample of school districts. [16]

The inevitable criticism of this approach focused on whether "equal opportunity" meant equal access to equal schools (ie. equal inputs), or equal educational achievement -ie. equal outputs or results. Did disadvantaged children score as well on achievement tests as others? The Coleman Report, published in 1966 and again in 1974, suggested that equality of resource inputs

did not correlate to equality of output. And Christopher Jencks charged in Inequality that educational resources were only weakly related to students' performance. [17]

During the 1970s, therefore, program focus shifted from measuring resource allocation to the measurement of SAT scores. The first "Back to Basics" program was initiated during this period, as educators "discovered" that SAT scores were not equal across ethnic groups, and had been declining for the past decade. (See also Chapter II.) Although the federal government's emphasis had shifted somewhat, its basic operating philosophy had not. Its role was to disseminate funds to the states and measure program effectiveness through the use of "appropriate" statistics. In so doing, it could provide only "guidelines" as to how specific programs should be implemented, being careful not to usurp the rightful authority of the states.

The zenith of federal involvement in education is marked by the creation of the Department of Education in October, 1979. The new cabinet-level organization was to "provide a national voice for education at the highest level of government". [18] One year later, President Reagan recommended to Congress that the Department be dismantled in order to "reshape the appropriate role of



the Federal Government in Education." [19] Although the Department still exists at Cabinet level (President Reagan and Secretary Bell favored the formation of an Education Foundation), federal funding to education has declined from 10% of the total to 6%, while the real costs of education have risen. [20]

The federal role in the 1980s has thus been characterized by reduced funding, program consolidation (large Block Grants taking the place of a plethora of separate, smaller grants) and a concerted effort to return as much authority to the states as possible. Although ensuring equal education opportunity is still seen as an appropriate federal role, both the Reagan and Bush Administrations believe the restoration of a pre-1970's balance of federal/state authority is equally vital.

"During the 1970s, a massive shift in education power from state and local authorities to the federal government occurred. New Federalism has attempted to reverse this shift in direction by decreasing Federal requirements, consolidating Federal education programs and reducing the amount of Federal money appropriated for education . . . while still preserving earlier gains in equality of educational opportunity." [21]

In summary, the federal role in education over the last several decades has been directed at, and limited by, a very specific aim - the correction of imbalances in the distribution of educational opportunity. This role has

been pervasive in terms of the numbers of lives touched and the billions of dollars spent (although many would argue the actual results of these programs have been less clear-cut than the goals that inspired them). But it has also been constrained by a desire to conform to the political realities of "states rights". The federal role has been one of leveling, that is, of attempting to bring everyone to some common minimum standard, rather than one of changing the basic features of the landscape. This role has clearly been based on the presumption that educational opportunity and employment opportunity go hand in hand, that equal educational access was important to lift disadvantaged people out of poverty. Employment provides escape from destitution; the purpose of school is to prepare youth for work. This view has pervaded our discussions and our approach to education.

### The Vocationalization of Education

The idea that school prepares people for work seems so obvious as to be unworthy of mention. Yet, it is not an inevitable conclusion. Education could, for example, be viewed as primarily a cultural endeavor - an introduction to the higher things of life - with apprenticeships providing employment training. Such was

the American concept of education in the nineteenth century; it remains a major thrust in many countries today. Or, modern education could be focused primarily on preparing young people for their roles as citizens through detailed discussion of political history, or parents through moral training. That these subjects are discussed in today's curricula is clear. It is equally clear however that it is the adult role of worker that receives the vast majority of attention in our schools -and it is the schools' seeming inadequacy in preparing children for this role that causes such concern over education quality.

Charles Dickens noted in Hard Times that an educational system mirrors the national society of which it is a part. He predicted that modern, industrial society would concentrate on education for work, utility, efficiency - those facts and skills needed for maximizing economic growth. It is therefore not surprising that the American school system should be focused on the transmission of those skills necessary to enhance the value of "human capital". The issue here is not whether this is good or bad, but that this perception has had significant consequences for our education policy and is therefore a trend we must examine.

The idea of using schools to train children for work

captured the imagination of American reformers at the turn of this century. Convinced that schools had failed to keep pace with changes in the workplace brought about by the Industrial Revolution, industrialists and politicians alike proposed a radical re-orientation of the existing purpose and curriculum of the American educational system. The purpose of an education was no longer merely the transmission of the "three R's", those minimum skills necessary to function in modern society. Education was not to be political or, otherwise designed to encourage an active citizenry. Extended schooling was no longer primarily cultural or reserved to the upper classes. The purpose of schooling was to prepare children to enter the workforce. [22]

The changes introduced by these reformers, beginning with the Smith-Hughes Act in 1917, have been both broad and permanent. The vocational movement begun during this period marks a significant turning point in the social history of American education.

"Over the years, the idea that school should prepare youth for work has become a common rationale for schooling and has provided support for numerous vocationally oriented programs . . . ranging from career awareness in elementary grades to specific skill training in high schools. . . The vocationalization of American education has also transformed educational institutions themselves. Though we often think of

vocationalism in terms of differential curricula and conventional vocational courses, the ideology and practice of vocationalism have been considerably more extensive. Vocationalism narrowed the debate over the purposes of schooling. How to prepare youth for jobs in the labor market, rather than whether this should be done, became the focus of discussion." [23] (emphasis added)

There have been three primary consequences of this shift in purpose. We will describe them only briefly here, returning to a detailed discussion of their ramifications in the next chapter. First, schools became inextricably linked to youth policy. As schools increasingly became the major path to employment, young people withdrew from the labor market and went to schools that had been transformed in order to prepare them to enter the workforce. Between 1900 and 1920, the percentage of fourteen- to eighteen-year-old males at work dropped from 43 to 23%, and females from 18 to 11%. At the same time, the high school enrollment of fourteen- to seventeen-year-olds rose from approximately 8% in 1900 to over 44% in 1930, and the proportion of high school graduates increased from 6.4% of seventeen-year-olds in 1900 to 16.8% in 1920 and 29% in 1930. [24] The purpose of schooling was to certify that young people were prepared for certain occupational roles - roles that defined adulthood.

Schools thus became the primary rite of passage from childhood. I believe it is this linkage which encourages the association of all youth problems, whether they be drugs, alcohol or sex, with the educational system. Likewise, educational historians trace our tendency to rely on educational solutions to address economic problems such as youth unemployment and social stratification to this same linkage. [25]

Second, vocationalization has resulted in the assumption by all groups that schools exist for the gain of individuals. Education exists to provide economic advantage for one's children. The use of schools for some "public purpose", such as creating social harmony, is hardly a concept that is considered in educational reform. Changes or improvements in curriculum are justified on the basis of providing individuals with the best preparation for earning a living, and are deemed necessary in order to improve productivity. This association of education with private self-interest encourages its politicization, as groups fight to either retain privilege or gain it. It also ensures that consensus as to goals and methodologies is extremely difficult to attain, particularly in a pluralistic society.

Finally, vocationalization began the problem of

credentialing:

"With schooling the mechanism of social and economic advancement, the incentive for each individual was to gain as much schooling as possible. This process in turn led to increasing rates of high school attendance and then to . . . college attendance." [26]

Credentialing has meant that jobs requiring relatively low skill are filled by people with higher levels of schooling; increasingly more advanced diplomas are considered a minimum requirement for many jobs - whether the skills learned in the pursuit of the degree are directly relevant or not. This "degree inflation" means that despite all attempts to equalize educational opportunity, those who can afford more schooling will pursue it, in order to maximize their own chances for advancement in life. Among all industrialized countries, education has the strongest direct impact on occupational status in the U.S. [27] The longer a person attends school, the greater his or her chances for a higher status job. Unfortunately, this process tends to maintain the existing social hierarchy; it means that those at the bottom of society have further to climb. It spotlights the lack of achievement of the very groups that widened access to education is meant to help.

## Conclusion

These then are the political realities that have characterized education in this country: decentralization, with its concomitant grassroots politicization; a focused and limited federal role; and vocationalization. The consequences of the interplay of these realities have been enormous. Not only do they color our perceptions of which aspects of our educational system are inadequate; they also constrain our ability to effect change in very real ways. We cannot fix a problem we do not understand, and we cannot fully understand the education problem without an appreciation of these three trends. We turn now to a more in-depth discussion of their consequences for today's education policy.



NOTES TO CHAPTER III

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#### CHAPTER IV: THE SYSTEMIC FAILURES OF EDUCATION

An examination of the literature on education reform and criticisms of current educational practice reveals several common themes or issues that permeate our thinking and our programs:

-- What is the appropriate relative focus on technical as opposed to cognitive skills?

-- What is the appropriate link between school and the workplace?

-- Is "quality education" best measured statistically or experientially?

-- How should education be included in the political process? And finally,

-- What problems can education really solve?

Driven by the forces of decentralization, vocationalization and the nature of federal government participation, I believe Americans have chosen to address these questions in particular, consistent ways over the last forty years. Further, we have rarely taken the time during either current or past debate on educational performance to re-examine whether these answers still serve our children best. In this sense, our educational system rests upon fundamental assumptions about the

"right" approach.

The answers we have chosen define the nature, purpose and value of schooling in this country, and are based upon fundamental social, cultural and political realities which shape our thinking. However, our answers no longer serve our purposes. The assumptions underlying education practice in this country are a source of our problems, not helpful contributors to a cure. Unless we are willing to look below the surface of reform we will continue to attack symptoms rather than real problems.

Indeed, in my view, it is the way we have chosen to answer the five questions posed above which represent the real, systemic failures in our educational system: systemic in the sense that, as long and deeply held convictions, they have affected the way programs are conceived and implemented; and failures in the sense that they are the true, root cause of the inadequate education we provide our high school students. If we are unwilling to re-examine our biases we will continue to fail. Our inability to question basic assumptions about schooling represents the real "education crisis"; SAT scores and drop-out rates are the result.

The remainder of this chapter is an attempt to look beneath the surface. We examine each of the five

questions posed above and assess the American response to each.

### Technical vs. Cognitive Skills

The vocationalization of education is based on the belief that among all the adult roles - citizen, parent, or worker - that of worker is most important. Our focus on the preparation for the work role above all others, and our desire to use education to improve productivity (a theme that has recurred in educational reform movements since the 1900's), has given education an economic orientation - a penchant for perceiving education as a means of economic advancement.

This orientation has led educators to place higher priority on the development of technical as opposed to cognitive skills. We have concentrated on the transmission of facts and the teaching of employable skills (word-processing, accounting, even computer literacy), rather than on the development of thought processes. History and literature, for example, are generally discouraged in high school curricula in favor of math and science. The former may stimulate thoughtful intellectual inquiry; the latter are important to "get into college" or "get a good job". The "classics" have

fallen into disfavor in both secondary schools as well as universities because there are insufficient job opportunities in these fields, as if there should be a one-to-one correspondence between the two. The use of these same works to develop the discipline to think through complex issues, or to prepare one for "the high office of private citizen" [1] is generally discounted.

This is not to suggest that math and science do not require sophisticated cognition. However, most educators agree that these subjects are taught in such a way as to demonstrate a grasp of certain facts, which are then demonstrated on tests.

"The abstract and undemanding pace of the mathematics curriculum at all levels has been widely criticized recently. Many mathematics educators believe there is too much emphasis on arithmetical drill and practise, as opposed to an emphasis on understanding mathematical concepts and applications." [2]

"Science, they say, ends up being presented as a monolith of unconnected and unchallengeable 'facts' which are learned only by those students with an over-riding determination to pass the standardized tests of their ability to recall such definitions . . . Many teachers similarly equate science with the mass of facts and material found in textbooks. Teachers report that their job is to cover as much of this material as they can and get their students to memorize it." [3]

The tendency to place greatest emphasis on teaching specific as opposed to thinking or learning skills is not

unique; in most industrialized nations the same situation applies. [4] And this emphasis is becoming a cause for concern. Japanese educators, despite the universally acclaimed quality of their school system, grow increasingly alarmed that although Japanese children are tremendously skilled, they lack the ability to think creatively or independently. [5] In this country, the National Commission for Excellence in Education (authors of A Nation At Risk) concluded that "the educational foundations of our society are being eroded by a rising tide of mediocrity that threatens our very future as a Nation and as a people". The Commission went on to comment that its concerns went far beyond ". . . matters of industry and commerce to the intellectual, moral, and spiritual strengths of our people which knit together the very fabric of our society." [6]

Although our concerns are perhaps not unique, they are especially difficult to deal with in this country. As we have already noted, more than any other society, Americans tend to be defined by their work; we value the work role above all other adult roles. Thus, educators are particularly vulnerable to pressure from the business community to teach "relevant" skills. The decentralized nature of our school systems also makes educators less

able to resist these demands, dependent as they are on local and state tax initiatives, business philanthropy, and re-election. This pressure has increased in recent years; federal funding cutbacks heighten the dependency on local monies, and industry is becoming more deeply involved in high school administration as it funnels an increasing percentage of its giving into secondary education, particularly in inner city districts. [7] As competition intensifies and industry performance is threatened, corporate leaders push educators even harder to concentrate on immediately useful skills.

I began this chapter with the statement that our concentration on the commonly-cited SAT scores was an example of treating a symptom, not the underlying problem. Today, many educators believe that one of the very reasons science and math learning is so poor is because we have focused on teaching as many science and math facts as possible and then testing for their presence in the minds of our students. In other words, we have exacerbated the problem of poor skills by failing to address the underlying reality - effective science and math education require the development of cognitive thought processes, which we have neglected in favor of the transmission of technical skills. Our school systems do not teach



cognitive skills effectively largely because we have not asked them to. Pushing for higher SAT scores on tests that emphasize regurgitation of facts more than elucidation of principles only makes the situation worse.

"Science is better viewed as a subject that embraces both a body of knowledge and the process by which that knowledge is developed and verified. . . the need to increase emphasis on problem solving and thinking skills is often referred to as improving students' higher order thinking skills or "creative" thinking. Higher order thinking is the ability to infer and reason in an abstract way, rather than merely memorizing and recalling single items of information. These skills have always been important, but many analysts believe that they will be part of the 'new basics' for tomorrow's high-technology work force.

The concept of high order thinking may be a metaphor for drastic reform of schools . . . A particular focus is testing, which is widely believed to be one of the main forces that perpetuates lower order thinking skills in the present day curriculum. . . " [8]

Ironically, our preoccupation with technical as opposed to cognitive skills is a short-term solution to productivity problems. In an increasingly complex, competitive world characterized by rapidly changing technologies and future capabilities we can only guess at, the ability to think through problems intelligently, to weigh alternatives, and to decide how technology should be used rather than just how it works, is vital. Even if we

cannot convince ourselves that we should be preparing our children for the other important roles of adulthood, adequate preparation for the workplace demands that we teach young people how to reason, to evaluate and to choose. The technical skills we teach them today may be outmoded tomorrow. The cognitive skills they learn can last both them, and their employers, a lifetime. Learning to learn may be the most important, and employable, skill of all.

#### The School-Work Link

Vocationalization has defined the purpose of education as preparation for the workplace. This purpose has led to a focus on the acquisition of technical skills. As a result, work has become the primary, some would say the only, incentive for becoming educated for a vast number of young people in this country. Going to school to get a job is a vastly different motivation, resulting in different behavior, from going to school to learn.

This motivation sets up a terrible dilemma. When jobs are scarce, or youth perceives that employment is unavailable to them - whether for marketplace reasons or discrimination - they frequently see no reason to go to school. During those times when they most need to educate

themselves so they can overcome difficult circumstances, children drop out. They do not perceive education as important preparation for life; it is preparation for work. If work is unavailable, school isn't worth investing in. When the link between work and school is broken, there is nothing to learn.

Authors have described another result of vocationalization as the use of schools as "warehouses" - that is institutions designed, in part, to hold youth in an unproductive, "student" capacity until the labor market can absorb them. According to these same authors, a wide spectrum of educational programs, including the G.I. Bill, and the proliferation of two-year colleges, have been motivated by this warehousing need. [9] However, these authors also argue that warehousing is a legitimate and effective technique only when the school-work link is intact, that is, only when there are real occupational and income payoffs to extended schooling. If the link is broken and the promise of economic returns to schooling is unfulfilled, either because of labor market conditions or the distortions of prejudice, both students and employers become frustrated. Students drop out and employers begin to charge school systems with "irrelevance". "Schools can be used as warehouses only when economic returns are

substantial." [10]

Many of today's cooperative agreements between schools and business are perpetuating this link. In the Boston Compact, for example, a nationally renowned cooperative between business, educators and local government in the Boston metropolitan area, the primary role of business is ". . . concentrated on rebuilding the relationship between schooling and working"; that is, on providing jobs so that young people are motivated to complete their high school education. [11] Providing employment is clearly a worthy cause - although as we shall see in Chapter V, the results of these efforts are somewhat disappointing. However, reinforcing the notion that a job provides the only reason for schooling has disturbing, long-term consequences.

First, I believe it means that those whom education is supposed to help the most, are in fact disadvantaged most severely. Education cannot change the realities of a recessionary economy or a discriminatory workplace. But if those realities prevent a young person from seeking skills to help him throughout his life - skills like reading, writing, thinking clearly and speaking articulately - then he is doubly disadvantaged. He has neither economic nor intellectual resources. The school-

work link encourages young people to focus on a short-term fact - the lack of a job after high school - and throw away a chance to help prepare themselves for the long term. In so doing, they solidify their place at the bottom rung of society.

Second, and ironically for business, the school-work link devalues learning. The learning process becomes evaluated in terms of short-term economic gain. Most corporate leaders agree that productivity in coming decades depends upon a workforce with the desire and the ability to re-educate itself, to keep abreast of technological developments so that business is prepared to capitalize on them. We commented earlier on the importance of "learning to learn". The perpetuation of the school-work link, with its essentially short-term orientation, discourages young people from perceiving education as a continuing, life-long pursuit.

The school-work link also intensifies the belief that the only things worth learning are those directly applicable to the workplace. How can we expect young people to select History over Accounting when most of the signals they receive are focused on employment? Why should we be surprised, after decades of "educational reform" focused on the power of education to provide

economic reward, that our youth are not interested in intellectual pursuits? If we are concerned by the lack of "intellectual, moral and spiritual strength of our people" [12], it is in part because we have failed to provide any motivation for students to study these kinds of subjects. As A Nation At Risk notes, the social consequences are enormous. Schools cannot be held solely responsible for the nation's character. But through the school-work link, which both the school system and industry have perpetuated, we have largely defined education so as to exclude these important subjects.

#### Statistical vs. Experiential Focus

The great decades of educational reform, the 1960s and 1970s, were characterized by the federal government's focus on resources available to education (what we have termed inputs) and the results of education (outputs), as measured in statistical terms. This concentration, which equally captured the attention of school administrators and Board officials as they sought to implement programs and justify continued funding, was deemed necessary to evaluate how well education was accomplishing its primary purpose - providing equal opportunity. In the course of pursuing this ultimate goal, and the relentless

measurement of its attainment, the educational experience frequently got forgotten. Concern centered around how many students or teachers, how much money, and how high the scores. Relatively little debate actually involved what was going on in the classroom - the process by which teachers taught and children learned.

A Nation at Risk noted that "the educational risk we are running is largely the result of disturbing inadequacies in the way the education process itself is conducted." [13] The report dwells at length on the need to refocus on the nature and content of the classroom experience in order to adequately address the issue of education quality. This recent orientation leads to the growing realization that the quality, motivation and preparedness of teachers is the primary determinant of that experience, and to alarm over their pay scales and status in society.

Despite these healthy developments, we are a nation of statisticians - we believe in the power of numbers to illuminate and describe. Therefore, even Secretary Bell's reaction to A Nation At Risk was to develop five, quantitative goals by which to measure education's progress, including raising average SAT scores above 1985 levels by 1989, and decreasing the high school drop out

rate to 10% nationwide (See Chapter II). And the Boston Compact, which the National Alliance of Business has chosen to replicate in ten metropolitan areas across the country [14], measures its success in terms of SAT scores, attendance records, drop out rates, youth employment, and the number of companies participating in priority hiring programs. [15]

Not that we should abandon such statistics. Measurements are necessary, at a minimum, to provide incentives to continue programs. But we need to keep statistics in their proper perspective. We too easily forget that numbers, at best, are only a reflection of reality; it should be the reality of what is being taught and what is being learned toward which we direct our efforts. At worst, statistics mask rather than reveal, and discourage long-term thinking by highlighting short-term variations as opposed to over-all patterns.

Equally alarming is the growing body of evidence that reliance on statistics, particularly SAT scores, actually exacerbates the problems educational reform seeks to address. Many researchers now claim that testing has a "pervasive harmful effect on curriculum." [16]

The charge is frequently made that excellence and equality are impossible to achieve simultaneously. I do



not subscribe to that notion. I believe that in our pursuit of equality we abandoned excellence because we concentrated on the wrong things. We measured the equality of educational inputs and outputs, rather than working towards equality of educational experience.

"In striving to realize greater educational equality, it is important to reaffirm that education is essentially the organization of the learning experience, something that can be easily forgotten in the preoccupation with education's role as a vehicle for social mobility and the distributor of certificates. Concentrating the focus upon what is learned, and how it is learned, thus pushes curricular and pedagogical issues to the fore. In this respect, 'quality' and 'equality', far from standing in opposition to each other, as is commonly assumed, in fact come together. Pursuit of both requires that greater attention be given to the nature of the learning process." [17]

It is always easier to measure than to manage.

When dealing with complex issues in particular, we tend to rely on measurement as a means of simplifying difficult problems. But if we are truly interested in improving the quality of learning, we must manage the education process not the numbers. [18]

### Education as Political Debate

Both the vocationalization of education and the decentralized nature of our school system have combined to politicize the educational debate. Because education is

so closely correlated with economic status in society, any discussion of curricula is necessarily fraught with issues of power and class structure. And because school boards are elected officials, dependent on their constituents for both votes and funds, they must respond to political pressures.

Intensifying this politicization is the growing pluralism of American society. A larger variety of social groups are seeking a greater share of the benefits of education (that is, economic gain) and a voice in educational policy. [19] Women and minorities demanding an expression of their interests and histories in curricula is an example. Tightening labor markets, reduced funding to education and discriminatory hiring practices contribute to an increasingly emotional atmosphere.

The result is that consensus on educational goals and policies is more difficult than ever to achieve. At every level in the educational infrastructure, whether federal, state or local, the number of involved special interest groups has grown and the discussions over almost every aspect of schooling have consequently lengthened. [20] Nor do these interest groups represent students alone. School administrators, teachers and board members all seek

to protect or enhance their particular positions. (An example of the diversity of these interest groups is illustrated by the following list of members of the Forum of Educational Organization Leaders, an organization brought together to consider curriculum and teacher certification requirements: the American Association of Colleges for Teacher Education, the American Association of School Administrators, The American Federation of Teachers, the Council of Chief State School Officers, the Education Commission of the States, the National Association of State Boards of Education, the National Association of Elementary School Principals, the National Association of Secondary School Principals, the National School Boards Association, the National Congress of Parents and Teachers, and the National Education Association. Not surprisingly, agreement was not achieved on many substantive points. [21]) Since almost all educational reforms must be passed by State Legislatures, including curriculum changes, textbook adoption or modification, minimum graduation requirements, and changes in teachers' career ladders, there exist many forums and opportunities to prolong the debate.

An excellent example of the view of education as political debate may be seen in the following description

of the textbook adoption process in place in most states:

"Interest groups lobby state textbook adoption committees to ensure that their own viewpoint is included, but the effect is that new text and pictures are added - material is rarely deleted. Ultimately, depth is sacrificed for breadth. And, because the adoption process typically involves an expert panel that quickly skims each volume, the textbooks often are designed to have key words in prominent places and be attractively packaged. The result is often textbooks that are a lowest common denominator of inoffensive facts . . . Some have described science textbooks as glossaries masquerading as textbooks. . . The textbooks often include a huge quantity of material in order to ensure that each States' recommended science curriculum is covered and that all interest groups are mollified. However, many important but controversial aspects of science, most notoriously the theory of evolution, may be omitted or given inadequate treatment." [22]

Sadly, it is difficult to see how students benefit from any of this.

In such an emotionally charged atmosphere, where education is viewed as an appropriate topic of political debate, decisions are painstaking, time-consuming, and too frequently simply bad - either of little real benefit to children, or worse, of real harm. Action of any kind requires consensus, which can only be reached through the kind of compromise described above. But even if consensus is finally achieved, implementation may be still more difficult, particularly of federally funded programs. The

educational infrastructure is characterized by tremendous local and state diversity, and informal, loose links between organizations rather than formal, hierarchical reporting structures. [23] Viewing education as a political matter means that educational policy and reform are extremely difficult to define and decide. Our decentralized educational system means translating policy into practice is an implementation challenge of heroic proportion.

Despite almost three decades of unanimous agreement that education should be a national priority, educational goals and policies at any level are extremely difficult to formulate, reach consensus on and implement. Two conclusions result. First, anyone interested in educational reform, including industry and federal, state and local government must be as concerned with, and display as much leadership in, policy acceptance and implementation as policy formulation. Given the byzantine structure of American school systems and the politicization of the education debate, saying it should be so and handing out money in no way guarantees results.

Second, producing real change is a task requiring great patience and fortitude. Goals will not be achieved quickly; progress will be painful. "Fixing" the education

problem is not going to be accomplished in one President's administration. Secretary Bell exhorting states to reduce drop-out rates by 15% in 5 years [24] is simply not realistic. Even increasing teachers' salaries has turned out to be a far more complicated and lengthy process than the near unanimity of agreement on the issue would have suggested. [25] Sincerity and funding are not enough.

Finally, for better or worse, radical reform is probably not a realistic objective. Many business leaders as well as educators have recommended a total restructuring of the school system. The Wall Street Journal recently called for "a complete overhaul, and not just more tinkering." [26] But although a convincing case can be made that only extreme actions will solve the problem, it is my view that our educational system is so entrenched, so decentralized, and so buffeted by increasingly splintered interest groups that the best strategy for educational reform is to pursue those incremental changes likely to be adopted.

This is not a popular view, particularly among business people, because it implies a longer-term commitment and acceptance of perhaps less than optimal results. But unless we are willing to remove education from the pluralistic, political debate process (which no

one has seriously suggested), educational restructuring cannot occur in the same way that corporate restructuring does. No Chief Executive can order it to be done. Everyone gets a vote.

Furthermore, even in those cases where a reform has garnered the necessary majority, the controversy surrounding the proposal may make the cure worse, and more divisive, than the disease. Boston, for example, recently approved a plan to give parents a choice of public schools for their children. Written to succeed the 1974 desegregation court order that tore the city along racial lines, the plan is one of many similar efforts around the country designed to promote educational improvement by forcing schools into enrollment competition. The plan was voted upon along strictly racial lines - nine whites in favor, four blacks opposed. Black members of the School Committee charged that the plan represented resegregation under another name, and predicted that schools in primarily black neighborhoods would be shut down, since the condition of inner-city schools is already below par and no new funds are available to allow them to effectively compete for students. The NAACP, one of the original plaintiffs in the desegregation case, vowed to re-open the case following the vote. [27]

The important point in the above example is not the merits of pro-choice plans, nor which side in the debate is correct. Rather, it is that because this reform, although adopted, has stirred the passions of an important interest group that arguably has been most poorly served by the Boston schools, implementation, if permitted by the courts, will be painful, divisive and will once again deflect attention from the real purpose of all this activity - educating children better.

For business people to complain about the politicization of education is an exercise in futility. The facts are education is a political issue in a pluralistic society. There are roles both business and government can play to somewhat defuse the emotionalism of the debate, a subject to which we will return in subsequent chapters. Suffice it to say here, however, that as much attention needs to be paid to what are acceptable solutions as to which are "right". If we are serious about educating all our children, we must ensure that all groups feel included rather than excluded from our school systems and educational reforms.

### Education as a Cure-All

Of all the assumptions underlying our approach to



schooling, it is the view that education can be used to solve any youth problem that is the most destructive to efforts to revitalize our school systems. It is this pervasive and fundamental view of education as cure-all that most distracts our attention from the real job at hand - educating children better - and most frustrates our efforts to focus on those problems education can really solve. This assumption causes school administrators and teachers to become so overwhelmed with differing objectives that teaching and learning frequently fall near the bottom of a long list of priorities.

The vocationalization of education means that schools have become the most important rite of passage from youth to adulthood. They serve this role by preparing children for employment - a role is that defines an adult's place in American society. The increased secularization of society, breakdown of traditional family structures and mobility of Americans all place an even greater burden on the schools in this regard. The church or extended family may serve important, supplementary roles in preparing children for adulthood in other, more stable and traditionally oriented cultures.

As a result, I believe, of this "rite of passage" function, which schools almost exclusively fulfill, the

educational system has become associated with all youth issues. This can be seen throughout the past several decades. In the sixties and seventies, educational reform focused on schooling to eliminate socio-economic stratification - education would provide equal opportunity for employment and upward mobility for all children regardless of race or economic circumstance. The educational reforms inspired by the War on Poverty were designed to help alleviate poverty and youth unemployment. I am not suggesting that providing a quality education to all, regardless of background, is not a most worthy goal - indeed I am an ardent supporter. But, although the schools' mission may be to prepare young people for work, it is not to solve unemployment. There is a subtle yet critical difference between providing an education to all, and using the provision of education to attempt to change socio-economic realities.

First, as discussed in Chapter II, education cannot solve the host of economic and social ills that lie behind poverty. There is no question that low educational attainment has an impact on employment - teenagers with limited schooling and skills face limited, or non-existent, job opportunities. But education cannot change tightening labor market conditions in a recessionary

economy, it cannot change the fundamental reality that those with more money can afford more education, and it cannot address the distortions in hiring practices that discrimination creates.

"As several scholars have recently pointed out, the sources of poverty, unemployment and economic inequality are primarily rooted not in the nature of schooling but in the organization of the economy. Consequently, by focusing on educational reform rather than on the structure of the work and labor market, . . . reformers attack the symptoms rather than the sources of the conditions they hope to eliminate." [28]

Second, and more importantly for education, focusing on education as a means to an end, rather than an end in itself, deflects attention from the learning process and concentrates it instead on completing the process and demonstrating its efficacy. As we saw in Chapter III, such was the case during the sixties and seventies. Educators worried less about what was actually going on inside the classroom in terms of effective teaching and real learning, and directed their efforts to moving as many students into and out of the school systems as possible, while demonstrating their accomplishments through various testing methodologies. The perception of education as means to an end exacerbates our propensity to prefer statistical descriptions of an experiential process and makes it easier for us to forget that the purpose of

education is to teach children how to think.

Finally, of course, when education is perceived as a solution to problems it cannot in reality solve, frustration with the system sets in - frustration that is shared by politicians, business people and parents. Impatience can result in reduced funding at times when it is needed most, in calls for curriculum reform when they are needed least, and a general lack of community support. Worse, it may encourage reforms that attack the wrong problems, and thus leave the real ones unsolved.

The simple truth is we burden education with too many objectives and blame it for too many problems. Beleaguered administrators and teachers are often asked to choose among many conflicting goals, few of which have anything to do with education. The current debate over teenage pregnancy and alcohol and drug abuse is a classic example. When President Reagan cited an end to alcohol and drug abuse as among his top priorities for education in the eighties he was burdening education with a problem it cannot solve. Schools can of course help to educate children about the hazards of addictive substances, or the necessity for birth control. But it is both unfair and unrealistic to suppose that the educational experience can outweigh the other influences on a child's life.

Education alone cannot combat the values condoned by a child's peer group, his environment, his family, or particularly, the media.

We should have high expectations of our schools. But our expectations should be directed at those things schools can and must accomplish. We ought for example to motivate teachers to serve as role models for their students and to promulgate appropriate values. We ought not to expect them to end drug abuse in schools as long as drugs are freely available all around our children. We cannot expect the school systems to solve social problems of this magnitude. We ought to ask ourselves whether using an already limited school day to introduce an enhanced drug-education program, as opposed to lengthening the time spent in math class, is really the best use of our teachers, students and school systems' time and facilities.

### Conclusion

American education has been governed by fundamental assumptions about the value, purpose and role of schooling in society. As a nation, we have answered the five questions posed at the beginning of this chapter by deciding that: technical skills are more important than

cognitive ones, education's value is determined by the workplace, statistical descriptions of schooling are preferable to experiential examination, education is rightfully considered part of the political process by which all groups in society seek recognition, and that education can be used to solve a host of social problems. It is these answers which represent the real education crisis. If we are to truly provide the kind of education our children deserve and our nation requires, we must be willing to re-evaluate our approach and re-think our biases.

A 1986 report by the Carnegie Forum, now the National Center on Education and the Economy, stated that to keep our standard of living "schools must graduate the vast majority of their students with achievement levels long thought possible for only the privileged few. . . We must become a nation of people who can think for a living." [29] We will not achieve this goal unless we focus on the development of higher-order skills, and resist the temptation to provide only those technical skills necessary in the short-run to employers; instill a broader set of values about the purpose of education - values which can last a life-time, not just until students get a job; commit ourselves to improving the process of

education and not just its statistics; work to mitigate the effects of politicization so that special interest groups are not served to the detriment of students; and finally, become realistic about what education can achieve so that we concentrate limited resources on the right things. I believe both business and the federal government have a role to play in this regard - although their roles are necessarily different. The following chapters provide my recommendations.

NOTES TO CHAPTER IV

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- [27] "Boston Adopts New School-Choice Plan Despite the Objections of Many Blacks", The Wall Street Journal, March 1, 1989, p. A5.
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## CHAPTER V: THE ROLE FOR BUSINESS

The resurgence of business involvement in education, both at the national and local level is receiving an almost unprecedented amount of media coverage. The purpose of this chapter is both to examine the nature of the current business role and provide this author's view of the advantages as well as the limitations of these activities. Hard data as to the real extent of business participation in education policy are somewhat sketchy and anecdotal in nature. We therefore begin our analysis with a broad-brush view of the statistical evidence and then take a more in-depth look at a number of business-education partnerships that appear to be flourishing. Finally, we will examine the commonalities shared by these experiments, the positive and negative effects of the business role, and provide suggestions as to how business can best contribute to solving our education problems.

The private sector is contributing approximately \$2 billion a year to public elementary and secondary education. Of this total, about \$1.3 billion is provided by corporations, the remaining \$700 million coming from private foundations and local business. [1] An estimated 350 private education foundations have been established

throughout the country. These organizations are formed by local school boards, business people and other community members interested in aiding local elementary and secondary schools, and generally focus on initiatives and projects not funded by local school boards. [2]

The Council for Financial Aid to Education (CFAE) surveyed 534 major corporations in 1982 and reported that although grants to higher education totaled almost 70%, the number of companies reporting some giving to secondary education had risen considerably, and corporate giving to secondary education in total was on the rise. Corporate donations to education were estimated at 40.7% of total corporate giving to all causes. [3]

In addition to the provision of funds, an increasing number of businesses are becoming involved in "partnership" activities that involve the donation of personal time, goods and services. These partnerships may involve "Adopt-A-School" programs, mentoring activities, support of in-service teacher training, or the provision of teaching materials, to name a few. The Department of Education estimates that approximately 7,150 companies are now involved in partnerships of some type, with 27% of these in existence for 10 to 20 years. [4]

The Department also recently conducted a survey of

1500 principals which was released in November 1988 at the fifth National Symposium on Partnerships in Education. There were a total of 140,800 partnership programs nationwide during the 1987-88 school year which touched in some way almost 9 million students, or 24% of the total public-school enrollment. The survey showed a 5% increase over the last five years in the number of partnerships that provide goods and services rather than money. Programs that provide funds only have decreased by 4%, and those that combine the two forms of support have remained level. Overall, the number of partnerships has increased. In the 1987-88 school year, 40% of schools were involved in partnerships, compared with 17% five years ago. Of this 40% total, 46% of secondary schools were involved in some program, while 36% of elementary schools were. Likewise, partnerships are not spread evenly throughout the country. Schools in rural areas lag behind their urban and suburban counterparts in forming partnerships; 51% of urban schools reported some type of partnership arrangement, while only 31% of rural schools did. [5]

Unfortunately, statistics concerning the effectiveness of these myriad programs are generally lacking, but where results are reported progress appears spotty. [6] Although principals generally express

enthusiasm for these programs, their optimism is tempered by concern that the public's commitment to provide sufficient funding for quality education will wane as they perceive corporate America picking up more of the bill.

[7]

To understand the nature and effectiveness of business participation in schooling, we need to take a more detailed look at a number of those partnerships that have been singled out as among the most successful and worthy of emulation. We turn therefore to an examination of programs in urban centers with arguably some of the worst school systems in the country.

### Boston

The Boston school system is "widely regarded as one of the nation's worst". [8] A disproportionate number of students remain below state test norms, and drop-out rates linger between 40% and 50%. Exacerbating these conditions is a shrinking tax base; school enrollment has dropped from 95,000 to 57,000 since 1974, largely because of white flight from city schools. [9]

The Boston Compact was established in September 1982 and involves representatives from business, organized labor, higher education and local government, as well as

school administration and teachers. Hailed as one of the most successful partnership programs in the nation, the National Alliance of Business has chosen to replicate the Compact's organizational structure and goals in 10 other metropolitan areas. [10]

The goals of the Compact are as follows:

- to improve the math and reading skills as measured by the Metropolitan Achievement Test (MAT).
- to improve attendance levels by 5% a year (in 1986 they stood at 77% daily attendance).
- to reduce the drop out rate by 5% a year.
- to increase by 5% per year the number of graduating students having a job or going on to college.
- to increase the number of companies involved in a priority hiring effort from 200 to 300.
- to enlarge the career education and job placement programs available in 3 schools to 3 additional schools. [11]

In order to accomplish these goals, the Compact supports a variety of programs including: Adopt-A-School; Donations; Tutoring; Mentoring; and business participation in school planning processes which emphasize academic achievement, parent/community support, graduate placement, new school initiatives, and "improvement of school climate" (this primarily involves donations aimed at improving school aesthetics). [12]

We will postpone our discussion of the merits of the Boston Compact's goals until later in this chapter. Sadly, however, as measured against these goals, the programs's progress is spotty at best. The average drop-out rate has actually worsened since the Compact's inception, from 36% to 43%. This same trend can be seen in statistics for specific student categories. Drop-out rates for black students rose from 35% to 44%, for whites from 37% to 42%, for Asians from 14% to 26.5%, and for Hispanics from 43% to 52%. [13]

Both the number of full-time and summer job placements have risen: from 415 in 1983 to 967 in 1986 and from 1,181 to 2,591 respectively. [14] However, the numbers are surprisingly low considering the number of companies involved in the "priority hiring effort". One wonders whether these increases result from a general upturn in economic activity in the Boston area during this same period, rather than any extraordinary hiring practices. And, even progress in students' test scores has not been uniform. Performance at some of the highest quality schools has actually deteriorated since the focus on test scores began, while in general, the higher quality schools are reporting better progress than the lower quality ones - further widening, rather than narrowing,



the gap between the best and the worst. [15]

There is widespread frustration over these results. As a result, 1988 saw a number of innovative, new proposals implemented to help the Boston schools recover. Boston University plans to assume responsibility for the Chelsea school district, in the first case ever of a private institution taking over a public school system. Assuming the arrangement survives legal challenge, BU hopes to raise \$2.5 million dollars for its "Chelsea Plan". Its goals are as ambitious as those of the Boston Compact - it hopes to raise reading, writing and math test scores by 20% in five years. [16] And, as indicated in Chapter IV, the Boston School Committee voted in February, 1989 to revamp the school system along "pro-choice" lines. The city will be divided into three zones, with parents able to choose among all schools in each zone by order of preference. Boston Mayor Raymond Flynn stated: "The new plan offers the best hope of a turnaround." [17]

### Philadelphia

Philadelphia's drop out rate is 60%; at least one in every three urban high-school students will be on welfare as an adult. Alarmed by these facts and a growing inability to find qualified graduates for even file clerk

positions, the business community of Philadelphia decided to act. Five years ago, volunteers from the city's largest companies, including SmithKline Beckman Corporation; Pennwalt Corporation and Rohm & Haas Co., joined with several local universities to form the Committee to Support Philadelphia Public Schools. [18] The Committee has ambitious goals. They plan to restructure Philadelphia's 21 comprehensive high schools which serve about 42,000 students. They hope to increase student employability, reduce dropout rates and boost college attendance - all within three years and on a \$5 million budget. [19]

One of the program's most publicized innovations involves the establishment of a network of high school academies which combine academic, vocational and on-the-job training and are designed to better prepare young people to enter the workforce. The 1600 students who participate are selected on the basis of grades, attendance and conduct, and in general represent the best the school system has to offer. The 11 academies, small, self-contained units within existing high schools, offer specialized training in business, electrical and automotive repair, health service and environmental studies. Although students are not guaranteed jobs upon

graduation, nearly all of them are employed by local firms. [20]

A business academy's curriculum includes reading, writing, math, data-processing, bookkeeping, and office-machine operation. Classes are small, and students are assigned the same math, English and science teachers every year. The drop-out rate within most academies is close to zero; comparison with the rest of the school is difficult, however, because the academies have already siphoned off those students most likely to remain motivated and in school. [21]

Philadelphia's business community is also trying to improve teachers' and administrators' skills. Companies that provide management-training courses for their employees invite school principals to participate. Local corporations have also sponsored math, science and humanities workshops; so far, about 7,000 of the city's 12,000 teachers have participated. [22]

### Rochester

Headquarters for Eastman Kodak Company, Rochester represents one of the most radical approaches to educational reform. The Rochester experiment is funded heavily by Kodak and supported by the personal leadership

of Kodak President Kay R. Whitmore. The reform plan is based on the notion that education requires that "the job of teaching be transformed from what amounts to blue-collar labor into a full-fledged profession." [23]

A landmark contract negotiated in 1987 with the Rochester Teachers Association has made much of the plan possible. The teachers union agreed to pay scales heavily weighted toward merit rather than seniority - with merit based in part on student achievement. The district's 2600 teachers have a lead role in shaping the reform agenda, especially through "school planning teams" comprised of teachers, parent representatives and principals. The planning team decides how the total resources available to a school should be allocated, and recommends curriculum as well as teaching methods and standards for student performance. In return for the additional hours this teacher involvement and responsibility implies, high-quality teachers can earn up to \$70,000 a year - a previously unheard of amount. [24]

One of the Rochester success stories is the Wilson "magnet" school. Faced with school closure several years ago, teachers and administrators rewrote the high school curriculum around a rich science and humanities program. Kodak and Xerox helped design courses relevant to a

technology-based workplace. Students, 70% of whom are minorities, may select from courses in five foreign languages, robotics and photo-optics. Today, 85% of Wilson's graduates go on to college. [25]

Despite these achievements, there is cause for concern. Teachers remain nervous about the magnitude of the revolution to which they are committed. Although the 1987 contract provides a 40% pay raise over three years, job security remains an issue. Teachers are to be held responsible for student achievement, but as yet no standards for what constitutes "good" achievement exist, nor is there agreement on how achievement is to be tested. The Rochester central administration and the individual school teams are not yet organized enough to have set these guidelines. [26]

More significantly, community impatience for better results is building. Although Rochester's elementary schools show some improvement, junior and senior high school students' test scores have not risen appreciably. The drop-out rate, although somewhat better, remains at close to 30% and attendance is falling. [27] And though the Rochester experiment is barely three years old, many believe these results are not good enough considering the amount of money spent to achieve them. Kodak President

Whitmore has said: "Even people like me who are urging patience are going to be asking, 'Is this experiment really working?'" [28]

### Some Common Themes

Some common patterns run through these business-education partnerships. Although clearly the three examples cited above represent an extremely limited sample, I believe there are lessons that can be drawn.

First, and most obviously, this corporate philanthropy is motivated by clear economic self-interest. In all these cases, business has been galvanized into action by the unavailability of a sufficiently skilled blue-collar work force in the major metropolitan areas in which corporate headquarters are located. Such self-interest may mean that funding and commitment are more stable, and that therefore school systems can depend upon these kinds of partnerships far more than if giving were based solely on "charity". But there are also attendant risks for education.

Issues of equity immediately come to mind. Not every needy school district is blessed with business employers solvent, motivated or concerned enough to donate time and money. This is particularly true in rural areas. More

importantly, perhaps, corporate giving may well be limited to that level necessary to ensure a sufficient workforce - either in terms of numbers or skills - as defined by the sponsoring company. School systems dependant on business partnerships may find companies unwilling to go beyond what they view as minimum requirements. Put another way, the goals of business and education may diverge; that of business is to train enough workers with enough skills, while that of education is to provide a quality education to all. Although it is surely tempting for educators to acquiesce to business's desires to educate some, especially when the alternative may well be to educate none, public schools exist for the many, not the few.

We see evidence of this dilemma in the Philadelphia school system. Admirable as the "academies" are, they also have taken the most talented and motivated students out of the general curriculum, and are training them to become model employees. Is this sort of cream-skimming serving society's or education's or, most importantly, these children's long-term interests? Or is it instead serving to solidify existing social patterns in a community by allowing the most talented inner-city youth to be automatically slated for relatively low-skill occupations? Does it reinforce existing stereotypes about

minorities? That the company's interests are served seems beyond question. But when faced with the fact that although the academies' drop-out rates are close to zero those of the high schools in which they are housed remain at 40%, one wonders how good a deal the schools are really getting.

The second common theme emerging from these three experiments is also obvious: the school-work link is being strengthened. Corporations are drawing children through the school system with future employment as the carrot. In return, students spend more time on "employable skills". Although there is insufficient evidence to conclude that business partnerships always result in a preponderance of courses in data-processing as opposed to Advanced Physics or Literature, examples such as Philadelphia are sufficient to alert educators to possible problems. What would the same students now enrolled in the Business Academy accomplish in their lives if introduced to these higher-order subjects?

There is more to education, and more to life, than getting a job as a file clerk in downtown Philadelphia - even for the urban poor. Business people look to these kinds of partnerships to "reaffirm the dignity of work." [29] Educators need to ensure that the dignity and



value of learning are not being short-changed in the process.

This concern is heightened by the realization that the vast majority of partnerships in this country, our three examples being no exception, were begun in a period of economic growth. Companies were hiring and found insufficient numbers of qualified workers to meet their needs. The community thus comes to expect a certain level of employment as the fair return for "staying in school". Can companies meet these expectations in recessionary times? If not, what will be the results for the school systems?

Finally, no doubt encouraged by business's penchant for demanding "bottomline" results to determine whether its money is being well-spent, most of these programs have developed goals that are quantitative and statistically oriented, the Boston Compact being the most notable example. School systems struggle to produce results that will encourage continued corporate giving. This exacerbates the tendency to focus on education as defined by statistical data rather than experiential process.

This problem is magnified since most of these programs have extremely short-term planning horizons. Results, it seems, need to happen quickly. In Philadelphia, program

sponsors believe they can revamp the school system in three years. In Boston, drop-out rates were expected to decline 5% a year. And in Rochester, corporate donors are getting impatient for results, even though the plan has not yet been fully designed or implemented.

It is perhaps predictable that companies, strapped for cash and operating in an increasingly competitive environment, would hope for a quick turn-around. Their expectations are not realistic however. A school system that has been in trouble for decades is simply not going to recover in three years. The danger for educators who agree to produce such miracles in order to get funding is either that the inevitable failure to meet objectives will cause funding to dissipate in any event, or that meeting these statistical measures will divert attention from the real problems. As discussed in Chapter IV, studying for Science and Math SAT questions is not necessarily equivalent to learning math and science.

In fact, all these experiments have produced spotty results at best, and poor or unknown results at worst. We should anticipate no less. Education is a long-term problem requiring a long-term solution. The fact that business people expect projects to pay off in three to five years cannot blind educators to this simple, but

painful reality. Giving in to the business view may well mean that many of the systemic failures in our educational system are worsened by corporate involvement in education, not improved. This is certainly true where technical skills are emphasized over cognitive ones, where the process of education is ignored in favor of the statistics, and where the notion that education's value lies solely in the workplace is reinforced.

### The Positives

Lest the above discussion sound too cynical, there are some real benefits to corporate involvement in education. The most important, in my view, are the ability of business people and business funding to inspire innovation in a moribund system and overcome resistance to change, to encourage effective organizational practise and serious consideration of educational problems by the community, and teacher and facilities support. We consider each of these in turn.

Like any human organization, particularly if beleaguered and criticized, schools tend to exhibit many of the worst characteristics of a bureaucracy and, under pressure for reform, retrench along traditional lines:

"Another aspect of the [educational] context is the stubborn conservatism, the tendency

to fight to remain the same, that describes local response to efforts to change instruction, the curriculum and classroom organization. Much has been written about how innovation seldom got past the classroom door; how staffs surrounded and absorbed program changes, leeching them of novelty and transforming them into conventional practices, and how staffs simply sabotaged changes." [30]

The Office of Technology Assessment similarly reports that many federally funded programs for techniques with proven results are simply never adopted because the school administration's resistance to any change is so strong. [31]

Business can overcome this resistance in two ways. First, people from outside a system can frequently inspire innovation through the introduction of different sets of terms and new perspectives on familiar problems. Business may therefore play the role of outside observer or consultant. Innovation sometimes is facilitated by new faces.

Second, the business community is close at hand, and wants constant reassurance that its money is being spent as intended. It is difficult to accept a corporation's money and ideas and then go back to doing things the old way. Unlike federal bureaucrats, who rarely have the time or inclination to travel and inspect the results of their funding programs, local corporations are more likely to be

breathing down school administrators' necks asking for progress reports. In this sense, the short-term orientation of the business community may be a plus. It makes them impatient for results. School systems will find corporate demands difficult to ignore, given both physical proximity and the fact that corporate funding may be withdrawn at any time, without the necessity of a vote.

Business can also play a vital role in encouraging effective organization. Most corporations are familiar with state-of-the-art organizational techniques, even if they have not adopted all of them, and many have experienced a reorganization or restructuring themselves. They therefore can bring valuable insights as to which organizational structures are most effective for a variety of settings. A growing body of evidence suggests that this expertise may be crucial to school systems:

". . . influence on learning does not depend on any particular educational practise . . . but rather on their organization as a whole, on their goals, leadership, followership and climate. . . Those organizational qualities that we consider to be the essential ingredients of an effective school - such things as academically focused objectives, pedagogically strong principals, relatively autonomous teachers and collegial staff relations - do not flourish without the willingness of superintendents, school boards and other outside authorities to delegate meaningful control over school policy, personnel and practise to the school itself."  
[32]

If this sounds much like the current business buzzwords of lean organizations, accountability, clear goals, meaningful objectives and teamwork it is no accident. There appear to be some common techniques that produce results in any human organization. Indeed, David Kearns, Chief Executive of Xerox has written a book in which he argues that education has much to learn from corporate America's recent restructuring to meet world competition. He recommends that schools flatten organization charts and remove layers of mid-level bureaucracy, pushing as much authority and decision-making power as possible to the classroom level. [33]

Business also plays an important role in elevating the importance of educational issues in the community so that teachers and principals get the attention they deserve. Kay Whitmore has commented that he believes the biggest contribution business can make to the education problem is to "convince people it's serious." [34] Right or wrong, the simple truth is statements from a corporate executive concerning the education crisis get more public attention than similar comments from the local principal.

This is not a trivial point. Progress cannot be made unless the problem is perceived to be real. Indeed I would argue one of the reasons for the rash of recent

publicity surrounding education stems from the extent of visible corporate involvement. If increased awareness of the problem increases local support for our school systems, so much the better. Additionally, a powerful corporate sponsor can bring the many players in a community together and keep them talking, even when contentious issues arise - simply because so many of these same players, whether labor, higher education or the school system itself, are dependent on the corporation for employment or funding. Business may in this way elevate the education debate above those issues which would otherwise limit progress.

One other positive aspect of several business-education partnerships is worthy of mention. Many corporations, such as those in both Philadelphia and Rochester, are involved in teacher-support. This may be the most vital and effective activity of all.

"Schools, parents, communities and governments are expected to educate a population that will grow more ethnically diverse in an economy that is increasingly reliant on science and technology. The need for full participation by minorities and females will become a chronic national concern. The pressures, in short, will fall on teachers. The teaching profession, together with school districts and teacher-education institutions is ill-equipped. The quality of teaching in the long run, depends on the effectiveness of teachers, the adequacy of their numbers, and the extent to which they are

supported by principals, curriculum specialists, technology and materials, and the wider community. Teachers . . . need to be educated to high professional standards and like members of other professions, update skills periodically." [35]

Business can lend a helpful hand in many of these areas. Equipped with the personnel and funding necessary to remain at the leading edge of developments in math and science, for example, business can provide valuable in-service training to teachers. Corporate-sponsored workshops like those in Philadelphia not only serve to sharpen teachers' skills, but also create a much-needed opportunity for members of the same profession to come together and share information and experience. Many teachers who leave the profession blame isolation from their peers as a primary reason. [36] Corporate support of pre-service teacher training through scholarships is another important activity.

Finally, business can provide much needed classroom materials and equipment, as well as lecturers. In the Department of Education's survey of 1500 principals cited earlier in this chapter, 45% said that donations of computers, books and equipment were top priorities, followed by the supply of guest speakers and permission for schools to use corporate facilities, especially laboratories. [37]



Each of these activities are focused on improving the classroom experience, either by upgrading the actual equipment and materials used, or by ensuring that teachers are adequately prepared and motivated. These kinds of donations are in my view the "purest" business can make - they contribute to the provision of a higher quality education without exacerbating any of the systemic problems in the system.

#### The Limits of the Business Role

Business can play a powerful, positive role for change in our nation's schools. But lest we decide that private partnerships are the solution to our education problem, there must necessarily be some limitations to this role if we are truly to improve our educational system. These limitations exist because the goals of business and the needs of school systems may diverge at a number of critical junctures.

First, corporate involvement in education may exacerbate the focus on technical skills at the expense of those higher-level, cognitive skills which, while perhaps not necessary to the development of a blue-collar worker, more adequately prepare a young person for life. Even the current cry for better math and science education, while

acknowledging the cognitive nature of these subjects, is cause for concern. We cannot permit the business community's understandable preoccupation with remaining competitive in a highly technological society to overwhelm either our children's right to learn other subjects or our school system's duty to teach children how to think.

Second, the attention of corporate donors may be overly short-term and statistically oriented, as business looks for "bang for the buck". Principals and teachers should not feel pressured to deliver results that make real solutions of the problem more difficult. When satisfactory results are not forthcoming, business participation may dwindle. Indeed, one of the primary criticisms of "Adopt-A-School" programs is that interest and funding tend to wax and wane, leaving both teachers and students in the lurch, and administrators unable to implement programs which require a consistent level of support. [38]

Third, business is generally not prepared to broaden the value students place on education and learning. Although, as we have argued earlier, the narrow association of learning with getting that first job does not serve the long-term interests of either the employer or the employee, it is perhaps inevitable that the

participation of business in education perpetuates the notion that school is for work, not necessarily for life. As some of the partnerships above demonstrate, this valuation may serve to solidify the existing social stratification of a community since businesses generally appear to intervene in secondary schooling in search of blue-collar workers.

Finally, business needs to reconsider the tremendous burden it has placed on the public school system. We commented in Chapter IV on the American tendency to view education as a panacea for many social problems. In my view, business is guilty of this fault. To blame the school system for American productivity problems without mentioning the host of other causes that are well within a company's control is a cop-out. At the same time business is exhorting education to improve training, corporations should be carefully re-examining their own in-house training programs. The public school system cannot reasonably accept the entire burden of supplying qualified blue-collar workers.

Executives like to point to the Japanese school system as a model of efficiency and effectiveness. They ought to take a close look at what some Japanese companies do in-house, despite the excellent schooling their workers

receive. Toyota for example hires about 250 high-school graduates for its Technical High School, where students live in dorms and train 248 days a year. After three years of total immersion in Toyota's technology and culture, these young people emerge as a new generation of factory workers who will assure Toyota's world-renowned competitiveness. [39] The Toyota example gives a new meaning to the term "business-education partnership".

### Conclusion

Business cannot and should not do it all. This is not a criticism of the many well-meaning people who have devoted time, energy and money to partnerships with education. It is merely a recognition that the goals of business and those of teachers and school administrators are not always congruent. Educators have the right to expect the support and involvement of the business community. Equally, they have the right to look elsewhere for additional support where the needs of students demand it. Like business, the federal government also has a legitimate role to play in education.

NOTES TO CHAPTER V

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- [2] Ibid.
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- [6] "Volunteer or Else", The Economist, January 28, 1989, Volume 310, Number 7587, p. 28.
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- [8] "Boston Adopts New School-Choice Plan Despite the Objections of Many Blacks", The Wall Street Journal, March 1, 1989, p. A5.
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- [13] Ibid., p. 54.
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- [23] "Starting from Scratch", The Wall Street Journal Reports, The Wall Street Journal, March 31, 1989, p. R-4.
- [24] Ibid.
- [25] Ibid., p. R-6.
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- [33] "Retooling the Schools", The Wall Street Journal Report, The Wall Street Journal, March 31, 1989, p. R-1.
- [34] Interview at M.I.T., with Sloan Fellows Program, Seminar in Management Series, October, 1988.
- [35] Elementary and Secondary Education for Science and Engineering, op. cit., p. 53.
- [36] Ibid., p. 56.
- [37] "Principals Seek Links with Businesses to Provide Scholarships and Materials", op. cit., p. 15.
- [38] Elementary and Secondary Education for Science and Engineering, op. cit., p. 127.
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## CHAPTER VI: THE ROLE FOR GOVERNMENT

Despite both the Reagan and Bush administrations' frequent reminders that "the rightful authority for education resides with the states", the federal government does have an important and enduring role to play in education reform. The government's traditional support functions have included research programs and results dissemination, curriculum development, demonstration projects, equal opportunity and "leadership". [1]

I believe there are four primary goals the federal government should seek to achieve through active participation in education reform. We begin this chapter with a discussion of these goals, and then consider the types of activities that can support their accomplishment. This is followed by several cautions regarding the effectiveness of previous federal involvement in educational reform. The hope of this section is to learn some lessons from the past as to why government intervention has failed to achieve desired results. Finally, we conclude with a plea that "States Rights" not be taken too far.



## Federal Goals

### Ensuring Equity

The most obvious and important federal government role is to ensure that the goal of a quality education for all children, regardless of race, sex or economic circumstance, not be compromised. The simple facts are we cannot rely neither either business or local and state government to ensure equality of educational opportunity across the nation.

The business community is strictly speaking not concerned with equity. Its forays into inner-city urban school districts have little to do with redressing inequities. Instead they reflect a realization that a growing percentage of the workforce will come from among disadvantaged, minority youth. Likewise, because tax bases vary so greatly throughout the country, state and local governments cannot raise the funds necessary to ensure that all schools provide a certain minimum level of educational attainment to all children.

Several facts will serve to illustrate the need. The elementary and secondary school system in this country is comprised of 100,000 schools, 2.5 million teachers, and 45 million students. A total \$170 billion is spent on education, or approximately \$4,000 per student. [2]

The bulk of the cost of education is in providing buildings and paying salaries for teachers and other staff. A tiny percentage is spent on instructional materials such as textbooks and laboratory equipment. According to data from the American Association of Publishers, the average school district spent \$34 on instructional materials per pupil in 1986, or less than 1% of the \$4,000 total. [3]

Almost all experts agree that educational reform requires money, more money than is currently available. Even the federal government, at the same time that its outlays for education are being reduced, recognizes that total funding to education must be increased, although it lays the burden squarely at the feet of state and local government. [4] Local and state authorities are severely strapped however. Of the total \$170 billion spent on education, states provide 49%, local governments 45%, and the federal government 6%. [5] Given this already high level of spending ". . . the problem for the States and local school districts is how to increase funding for education at the same time that additional funds are being demanded by broad political and cultural movements outside the realm of education . . . The question is whether citizens will be willing to pay still higher local taxes

in order to improve education in their areas." [6]

The situation is complicated by the uneven distribution of those children who need help most desperately. Most urban school districts have notoriously poor tax bases, worsened in recent decades by the flight of both businesses and more prosperous, white citizens from downtown areas. (Although "white flight" is being reversed in some cities, many of these affluent, younger couples send their children to private schools). [7] Schools in depressed, rural areas fare no better. Yet these same poorly funded schools bear the greatest responsibility for educating those with whom the schools have traditionally been least successful: minority, disadvantaged, and non-English speaking children. The 44 largest urban school systems enroll only 10% of the entire school-age population, but 33% of the total black students and 27% of the Hispanics. A disproportionate number of the students in these schools are from families below the national poverty line. [8] Data from the National Assessment of Educational Progress (NAEP) indicates students in these urban areas score 20% lower than the national average, while suburban children score 5% higher. The statistics from depressed rural areas mirror those of inner-city schools. [9] The simple truth is money talks.

These contrasts are even more stark when students' achievements in more advanced subjects such as calculus and physics or chemistry are examined. The "Trends in Mathematics Course Taking 1982 - 1986" studies conducted by NAEP came to the following conclusions:

- Offerings of pipeline mathematics and science courses are constrained. Even when they are offered, only tiny numbers of students take them.
- Minorities have less access to advanced mathematics and science courses because school districts with high minority enrollments often cannot afford to offer many such courses. Offerings in rural and urban schools are generally more limited than those in suburban schools.
- In the sequence of mathematics and science courses designed as preparation for college-level study, constant attrition occurs in all categories of students. However, the attrition of females, Blacks and Hispanics is disproportionately high as is the tendency to drop out of the normal sequence of courses. [10]

The past interest and performance of females and minorities in science and math should not lead us to conclude that a shortage of scientists and mathematicians is inevitable. Indeed, we cannot afford as a nation to accept such "demographic determinism". [11] Rather these facts are an eloquent statement of the need for government intervention:

"When provided with early, excellent and sustained instruction and guidance, the

achievement levels of females and minorities in science and engineering match those of any other student. In other words, there are no inherent barriers to participation. The Federal role in intervention programs is to encourage new starts, to expand funding and to provide networks for the elements of successful programs to be disseminated and shared." [12]

An idea of growing popularity, especially among business people, is that "magnet" and "pro-choice" schools are an excellent way of improving the quality of education and achieving equity goals, all within existing budgets. A portion of the \$400 million dollars earmarked in the Bush budget for "new education programs" is intended to support already excellent magnet and pro-choice schools. But most pro-choice plans, like those adopted in Cambridge, Boston, Minnesota, Washington State, Rochester, N.Y., Dade County, Fl., and some New York City schools are based upon the notion that these types of innovations can help improve education within existing budgetary constraints.

"Frustrated by the pace of improvement and confronted with new austerity in federal and state budgets, some educational policy makers are pushing a low-cost agenda that might be called educational deregulation - putting free-market forces to work in the public schools . . . " [13]

Magnet and pro-choice schools provoke enthusiasm because they put responsibility for students' performance in the hands of teachers and principals, not bureaucrats.

Accountability for results is accompanied by enhanced freedom and flexibility to try things that work. However, the key to such plans is what happens when things don't work. After three years of under-enrollment, school administrators can fire the principal, reduce school size or close the school down altogether.

"Magnet school programs have become a popular alternative to forced busing and have grown in number from none 20 years ago to more than 1,000 today. Magnet schools are now rapidly evolving with the trend toward increased choice in public education. . . School districts that employ magnets are realizing that all their schools never were the same; each has its own culture and interests. Rather than maintaining uniformity, the concern is to develop schools of different specialties and emphases to capitalize on the special advantages of each school as community." [14]

Enthusiasts of pro-choice plans claim they amount to a "continuous public referendum on public schooling". [15] But others raise cautionary warnings. First, results are not uniform. The Harlem school district reports that while only 16% of its students read at the grade level or above before the introduction of a pro-choice plan, fully 67% have now reached these levels of achievement. However, the introduction of the Harlem plan was also accompanied by significant federal funding. Conversely, in Cambridge, public schools have lost students to private schools since adoption of a choice plan in 1981, and the

number of students passing basic competency tests has slipped from 85% to under 82%. [16] As noted in Chapter IV, blacks in Boston fear that since that city's pro-choice plan does not allow for any additional funding, inner-city schools will slip even further behind those in more affluent districts.

The Congressional Office of Technology Assessment had this to say about magnet schools specializing in math and science curricula:

"From a public policy perspective, magnet schools are promising but unproven. They are designed to promote the goals of equity and excellence simultaneously . . . The key is that magnet schools move the burden of rules, monitoring, certification and control from administrators and school boards and states to teachers and principals. This enthusiasm however, must be tempered by another realization; in many school districts, students do not even have the opportunity to learn science. In addition, most schools face a serious shortage of equipment . . . In short, the existence of magnet schools is no panacea to the problem of making a sequence of science and mathematics instruction accessible to more students." [17]

In short, pro-choice and magnet school plans are welcome innovations, but they do not relieve the federal government of responsibility for ensuring equity through intervention where necessary to redress severe imbalances in funding, materials and facilities. Pro-choice plans will work only when choice is meaningful. Even hardened

pro-market advocates would agree that program innovation and quality staff require money.

Intervention programs by the federal government are needed not only to redress imbalances in opportunities for minority and disadvantaged students, but also to reach drop-outs, who cluster in certain minority groups. Hispanics for example show a nationwide drop-out rate of 40%, although the national average is 25%. [18] Programs must be developed to help these particular "at-risk" groups stay in school, and encourage them to return if they leave.

Lest some think that although equality is a laudable goal not all students are worth investing in, we ought to take yet another lesson from the Japanese. Research data suggest there is less variation among Japanese students in mathematics and science learning than in the United States. In part this is because the use of mixed-ability cooperative learning groups, or "han", is very common. But it is also "due to the assumption that everyone can and must be competent in these subjects. . . It is simply taken for granted that every child must attain at the very minimum 'functional mathematics', that is, the ability to perform mathematical calculations." [19] And according to a 1986 survey conducted by the National Institute of



Mental Health and the National Science Foundation, Japanese mothers rate level of effort as most determinate of academic success, whereas American mothers emphasize ability. Despite the relative performance of the American and Japanese school systems, 41.5% of American mothers were "very satisfied" with their children's academic performance, while only 4.7% of Japanese mothers were. Fully 28.7% of the Japanese were unsatisfied with their child's performance, compared to only 11.2% of the Americans. [20]

If expectations are important to student achievement then we should expect as much from our disadvantaged and minority youth as from every other student. But as the above facts illustrate, these students will simply not be given the educational opportunities they so desperately need unless the federal government is prepared to commit itself to long-term intervention on their behalf. I am not suggesting that money by itself can solve all educational problems. But federal funding is necessary to ensure that those students who need help most desperately do not fall between the cracks. In my view, voluntarism, "a thousand points of light", corporate philanthropy and state and local taxation are simply not sufficient to get the job done. To declare education a national priority

and then be unwilling to help foot the bill at the national level is, to put it bluntly, hypocritical. Worse, without federal intervention, too many children will be left behind. If education is a national priority which includes all citizens, then we need to put our money where our mouth is.

### Safeguarding Education as a Social Institution

We commented in previous chapters on the long-term nature of effective educational solutions, as well as the propensity for corporate donors to focus on both short-term results as well as immediately employable skills. Local, state and federal government can play an important role in helping educators resist both these pressures by providing course material, curriculum guidance and teacher training in subjects not generally supported by business as well as a certain level of "base" funding, both to help schools survive periods of waning corporate interest and to assist them in withstanding inevitable business demands for measurable returns.

Our educational system is a social institution of tremendous significance. Our schools do not exist solely to satisfy the employment needs of the business community. We must equip educators to serve the vital social and non-

cognitive functions they must also perform, and to do so with their eye on the long-term health of the nation, not just its short-term competitiveness. If, as I have suggested earlier, the school-work link devalues learning over the long-term to both society's and the individual's detriment, it is unfortunately unrealistic to suppose that business will act to reverse this trend. It is however, in both business's and society's best interests that the government fulfill this function:

"For education to equip people fully to participate in modern society and to break into the lockstep of it serving to quicken the crowded race after scarce labor market opportunities, then full emphasis should be given to its role as preparation for political participation, for cultural activity, for leisure and retirement, for community life, for health and welfare, over and above its vocational preparation mission. . . .

What are indeed the major factors underlying sound economic performance? To be sure, part of the answer resides in variables regarded as strictly economic. But to a growing degree it is recognized how much it is also an important function of the values and social institutions in place in each country. . . . Since education is central in forming and transmitting values, it follows that its role in fostering these non-cognitive traits represents as comparable a part of its impact upon the economy as its formal task of equipping the population with appropriate knowledge and skills. . . attention to the wider context of social and cultural change and to the importance of the non-cognitive aims and outcomes of education argues for vigilance that the cultural disciplines - the arts, humanities and letters - are not downgraded at the expense of applied science

and technical subjects . . . The more general appreciation of ideas and their manipulation should be a central component of all education - for humanistic reasons . . . but also for economic ones. The technological revolution should not be taken as indication that future needs are for advanced numeracy and impoverished literacy. The role of education in fostering perception is as important as that of developing analytical skills." [21]  
(emphasis added)

A Nation At Risk noted with alarm the spiritual, cultural and moral decay of our nation. [22] In an educational system that is as decentralized and politicized as ours, there is a very real danger, especially in periods of budget austerity, that demands of the business community, accompanied by promises of funding which schools desperately need, will overwhelm the desire of educators to provide a balanced curriculum. State and local governments may be equally unable to withstand corporate pressure, particularly given business importance and power within communities.

We cannot permit education to become dependent on business. Even if one argues that business can be a "good public citizen", corporate America cannot safeguard social institutions - it is, in the final analysis, the government's job to protect them. That business can and should be involved in education is undeniable. But government must retain enough presence and influence to

ensure that business participates in the educational debate, rather than dictates its conditions, norms and standards.

### Retaining an Experiential Focus on Education Reform

On the surface, this may be a strange goal to attribute to the federal government, since I have suggested earlier that their intervention in the 1960's and 70's caused the largely statistical focus that now exists. However, I would also argue that it is the corporate community currently encouraging a preference for statistical measurement; government must play a balancing role in this regard. Further, I believe the federal government has one clear way to ensure that the process of education receives adequate attention - funding the training, both pre-and in-service, of teachers:

"Educational policies influence a student's behavior only if they shape the school experience. Some of the most important school variables affecting children - especially the interaction between teacher and student - remain beyond the control of education policy makers. Yet everywhere teachers play the key mediating role between the policy makers and students. Teachers' expectations about student performance, their enthusiasm for the course material, their motivations to help students learn, their teaching effectiveness, and students' identification with an instructor's values may have the greatest impact on student behavior". [23]

The federal government, having learned one hopes from earlier decades that dictating programs from Washington is not always the most effective way of providing quality education, has an important opportunity to improve the professionalism, motivation and creativity of teachers, who, after all, are those finally responsible for shaping the classroom experience. The government can achieve this goal by funding teacher training (grants for this purpose already exist under Title II of the Education for Economic Security Act Program and the Teacher Enhancement Program), as well as the formation of professional associations and networks, both to improve motivation and to disseminate results of innovative teaching techniques that prove successful.

Many would argue that these are the responsibilities of teachers' employers, the school districts. But the practical reality is that in-service teacher training is one of the first budget items cut in periods of austerity, and in most school districts teachers are expected to arrange and pay for their own in-service training. [24] There also remains a crying need for financial assistance to encourage young people to enter the teaching profession. [25]

Likewise teachers, like other professionals, must be

able to learn from the experiences of their colleagues. Many researchers blame the rarity of innovative instructional approaches in part on the relative isolation of teachers. [26] The federal government can assist in this area by linking teachers together through regional "education advisors". These advisors could serve functions similar to those performed by Agricultural Extension Agents - that is, the dissemination of educational research on effective classroom techniques and the provision of informal networks to assist teachers in sharing ideas. [27]

There is much hopeful evidence that policy makers recognize the critical role they can play in supporting teachers and encouraging their professional development. The Bush budget for example allots money to teacher support, although funds are to be allocated based upon merit. I would argue however, given our goals of educational equity, that concentrating funding on those teachers who are less than top in their field is equally as important as recognizing excellent members of the profession. In short, although the government has grown more sophisticated in its appreciation of the necessity for teacher support, much work yet needs to be done.

### The Need for a Balanced National Strategy

At no time during our nation's history has a balanced national strategy for education been more necessary. Although the funding and personnel necessary to solve educational issues are severely constrained, the problems educators must solve seem limitless and increasingly complex. In such an environment we cannot afford to have nationally funded programs that serve contrary purposes, nor can we waste funding on areas where sufficient support already exists.

The Department of Education must work to rationalize and integrate the plethora of federal programs and departments which currently exist to support public education. The following list of federal agencies involved in the funding of math and science education provides an example of the problem:

- The National Science Foundation
- The Department of Energy
- The Department of Agriculture
- The National Institutes of Health
- The National Aeronautic and Space Administration
- The Department of Labor
- The Department of Commerce [28]

Added to this complexity is the Department of Education's own organizational structure which is comprised of the following Offices:

- Elementary and Secondary Education
- Bilingual Education and Minority Languages



- Affairs
- Special Education and Rehabilitative Services
- Vocational and Adult Education
- Post-secondary Education
- Educational Research and Improvement

Within the Office of Elementary and Secondary

Education, the following Programs exist:

- Education of Disadvantaged Children
- Migrant Education Program
- Formula Grants for Neglected or Delinquent Children
- Consolidation of Federal Programs for Elementary and Secondary Education - Chapter II State Block Grant
- General Assistance to the Virgin Islands
- Civil Rights
- Follow Through to Local Agencies
- Impact Aid to Federally Affected Areas
- Indian Education
- Alcohol and Drug Abuse Education
- Women's Educational Equity
- Migrant Education
- Arts in Education
- Inexpensive Books Distribution Program
- Secretary's Discretionary Program. [29]

Other offices within the Department oversee a similar variety of programs. Such organizational complexity and overlap is a result of the fact that federal programs have been developed separately over the decades to respond to specific needs. Each individual program has its own management, funding and bureaucratic channels. [30]

State governments of course also have special programs for female, minority, gifted, handicapped and learning disabled students. [31]

Ideological considerations of the appropriate level

of funding aside, whatever money the federal government is prepared to commit will be less effective than possible if funding is either duplicative or in conflict with other programs. It is critical that the Department of Education take the lead on this issue and develop mechanisms to ensure a coordinated and integrated approach to federal intervention. Such rationalization will not only increase program effectiveness but will also relieve teachers and administrators of some of the overly burdensome paperwork that must be completed for each separate program grant, thus giving more time for classroom activities.

Although the Department of Education has taken many significant steps in this direction through the consolidation of programs into Block Grants, the job is not yet complete, as the above organizational listing amply demonstrates.

These then are the goals that should inspire and direct the federal government's role in education reform: ensuring equity, safeguarding education as a social institution, maintaining an experiential focus, and developing a balanced national strategy for intervention. We have discussed some specific activities supportive of these goals. However, two additional program types are

worthy of mention.

### The Federal Research Role

The Department of Education has always assumed a leadership role in the development of research programs to support quality education, and the dissemination of these results. Such program efforts must be continued. As mentioned in connection with teacher training and support, the federal government can play a valuable role in determining what classroom techniques are most effective and ensuring that this knowledge is effectively passed on to educators who desperately need to know the state-of-the-art. Three areas where I believe additional research is needed involve the use of computer-aided learning, how the learning process can best be measured, and how program effectiveness can be determined. These are all controversial areas within education today and additional information is sorely needed.

Many business people as well as educators are enthusiastic proponents of computers in the classroom. Corporate donations of computer technology to the classroom are on the rise, and the Department of Commerce has founded the Office of Productivity, Technology and Innovation (OPTI) to promote technology-based

learning. [32] If used well and imaginatively, computers can increase students' interest and improve learning, as well as prepare students for careers which demand familiarity with the technology. But there are limits to the computer's effectiveness in classrooms which, except for the addition of the equipment, have remained the same. Additionally, there are some educators who worry that overuse of technology will undermine the important social functions of the classroom experience by isolating students both from their peers and teachers, and will further intensify student's mastery of facts and figures at the expense of conceptual thinking. [33]

The important point here is that, despite increasing investments in computer-aided learning, the conclusive evidence as to its effectiveness is meager. Federal research should attempt to close this gap, focusing particularly on how computer effectiveness can be measured against the process of learning, not just course content and outcomes. Another research need is to investigate how computers can most effectively be integrated into existing curricula, and whether new, computer-integrated curricula should be developed. [34]

A second research need involves SAT testing. We have already commented on the growing controversy surrounding

these kinds of tests. The good news is that a growing number of educators acknowledge that aptitude tests do not adequately capture the learning process, and worse, may actually stifle students' higher-order learning capabilities. There is no consensus however as to what measures should take the place of standardized tests. While reiterating that educators must maintain an experiential rather than a statistical focus on learning, practitioners still need some way of determining whether techniques are working. Additional research is needed to discover how an effective learning process can best be understood and described without the intrusion necessarily caused by study or testing causing negative impacts on the process itself.

Finally, far too little is known about the effectiveness of previous and current Federal efforts. The evaluation of federal programs has proven difficult for two reasons. The first relates to the research need outlined above: there is no clear agreement as to "which attributes of students should be considered definitive output or input measures to educational intervention . . . " [35] Secondly, program evaluators have great difficulty gaining access to already beleaguered schools to study programs, and the cost of performing these studies can be

prohibitive. [36] However, when determinations of program effectiveness may well have national relevance, this remains an important need, and one the federal government is uniquely positioned to carry out.

### Depoliticizing the Education Debate

We have discussed at some length the intensely political nature of the curriculum development, textbook adoption and teacher certification processes. While the federal government cannot change the essential nature of the American educational system, it can help to mitigate the negative effects of special-interest politics in these important areas through the development and dissemination of recommended standards. Although a "national curriculum" such as exists in Japan is neither realistic nor perhaps desirable in this country, the federal government can provide curriculum "guidelines" for consideration by local school districts and State legislatures. The purpose of such guidelines would not only be to give practitioners a starting point for discussion; equally important, they could be used as powerful supportive rationale for recommended decisions against a barrage of political pressure. Withstanding the heat generated by angry citizens or corporate donors

requires courage on the part of school officials; the government can provide some needed ammunition by disseminating "suggested standards".

This same leadership and support role is necessary for textbook adoption and teacher certification procedures. Such recommendations and standards need not interfere with states' rights to administer their own educational systems, as adoption would be entirely voluntary. The Department of Education, under both Reagan and Bush, has shied away from standards development, fearing a political outcry against the usurpation of states' authority. Inevitably, discussion of this notion brings declarations that our schools' diversity is a time-honored tradition which must be protected.

I believe these essentially partisan arguments forfeit our children's education for all the wrong reasons. Given the enormity of the problems educators must address, and the intensity of pressure they must withstand, I believe the provision of "blueprints" can perform a valuable function and serve to support embattled practitioners. These blueprints can also help parents within a community hold their school systems accountable to some meaningful set of standards. Nor will such

standards necessarily contribute to bureaucratic meddling. No reporting requirements need exist, and disseminated guidelines could recommend the continued need for autonomy, control and accountability at the school level. Recommendations could be shaped to fit the particular needs of the community.

### Some Cautionary Notes

Throughout this thesis I have discussed the systemic failures of our educational system. These failures can be attributed to federal education programs as well as any other. It is helpful to examine however, the particular reasons federally-funded initiatives have proven ineffective. In general, researchers point to uneven program appropriations, levels of funding that are inadequate to support the goals of the program, slow implementation, appropriated funds being dispersed too widely throughout the system to make any real impact, and a lack of data as to how program funds are really being used. We will briefly explore these points by examining dissemination of federal funding through Title II of the Education for Economic and Security Act of 1984.

Title II was a major congressional initiative designed to address problems in mathematics and science



education in the early 1980s. It provides funds to both States and school districts to improve the skills of teachers and the quality of instruction in mathematics, science, computer learning and foreign language. Title II established teacher training as first priority and directed that funds allocated to school districts must be spent on training. [37]

The Act has been funded unevenly by Congress, causing dislocations as school systems struggle to adjust to inconsistent funding for programs that are long-term in nature. \$100 million was appropriated in fiscal year 1985, \$42 million in FY 1986, \$80 million in 1987, and \$120 million in 1988. For comparison purposes, a \$40 million national education program equates to spending \$20 per teacher or \$1 per pupil. [38]

Implementation of Title II by the Department of Education has been slow. For example, although funds for fiscal 1985 were provided by Congress, grant awards were not announced by the Department until July 1985, after the school year had already ended, thus delaying implementation by 12 months. Although the situation has improved since then, the Department's bureaucracy still has difficulty turning around funding quickly enough, in part exacerbated by the fact that states must submit a

plan to the Department for use of funds before allocations can be released. [39]

90% of Title II funds are divided among the States, including Puerto Rico and the District of Columbia, based upon the relative size of school-age populations. Of the total received by each state, 30% must be given to higher education for teacher training. Two-thirds of the remaining 70% must be divided between the schools districts based on size of school population; the remaining third is retained by the State and must be spent on exemplary programs in teacher training. [40]

The net effect of this legislation is to disperse appropriated funds vary widely without consideration as to whether such dilution reaches a threshold where funds no longer have any discernible impact. Almost all school districts in the country have received small amounts of Title II funds; the problem is the size of the allocation. One-half of all the annual grants were under \$1000 and one-quarter were for under \$250. [41]

This example suggests the following points. First, although equity should be one of the goals of federal intervention, this should not necessarily translate into providing everyone with exactly the same thing. For funding to be meaningful, it must represent realistic,

consistent amounts. Federal intervention may work best where efforts are targeted towards specific problem areas and funding is commensurate with the need. The Department of Education is unfortunately replete with examples of funding programs that represent little more than empty gesture. One should remember the total \$400 million allocated by President Bush for "quality improvement programs" in education amounts to less than \$10 per student.

Ineffective federal funding is worse than none at all. After countless hours have been spent developing legislation, voting appropriations, writing reports, disseminating grants, assessing results, and tying up valuable teacher and administrator time to justify uses of funds, the problem remains no closer to solution. Additionally, it is important to examine whether and how Federal funding changes the actions that state and local bodies would otherwise have taken. Ideally, federal programs should allow the states and local school districts to do things they otherwise could not. If federal funding merely replaces funds that would otherwise have been raised by state and local governments, then all the ideological and constitutional issues concerning states' rights come to the fore. At its best, federal

funding should encourage state and local organizations to reform their operations; at its worst, it can encourage the avoidance of such action.

### Conclusion

Despite these cautions, I believe there is a real role for the federal government in education reform. American business and state and local government cannot solve our education problems by themselves, unless we are willing to compromise those goals that have historically inspired our educational system, or are content to let systemic problems fester. Important social institutions deserve federal protection. National priorities require national agendas.

In this way, education is no different from any other issue that has captured the public's attention and imagination, including drug abuse, space exploration, or environmental protection. There are numerous examples of federal failure in each of these areas, yet no one seriously questions that the federal government plays a legitimate role. One wonders why these same issues are not beset by arguments over "states rights" - although the Constitution does not specifically give the Federal Government rightful authority over any of them. Lest

education be overcome by partisan debate, we should remember the words of this country's first Secretary of Education, Shirley Hufstedler:

"The needs of our country's children do not change with the tides of our elections. They cannot be dropped one year and picked up the next with no damage. They must be attended to every day, with care, with affection, with imagination, for the nation's children are not merely a part of our future - they are our whole future." [42]

NOTES TO CHAPTER VI

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- [35] Ibid., p. 118.
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## CHAPTER VII: CONCLUSIONS AND RECOMMENDATIONS

The vastness and complexity of educational issues confound simple analysis. Yet despite this difficulty, real solutions to long-standing and deeply-rooted problems require educators, policy makers and business people alike to seek real comprehension. If we are to achieve and sustain progress towards educational goals that have eluded us for decades, all these groups must possess an understanding of the dimensions of the problem, an appreciation for the forces that have interacted to define our educational approach, and an informed opinion as to those reform activities each group should most appropriately support.

The intent of this thesis has been to develop an intelligent and comprehensive framework within which to analyze and evaluate education problems and proposed solutions. Throughout this work I have attempted to uncover those misconceptions, fundamental realities and unspoken assumptions which have shaped our opinions and directed our reforms. This analysis represents a set of strongly held personal convictions. Although one may argue with particular conclusions, it is my hope that the thought process itself is of some benefit.

Several recommendations developed in preceding chapters bear repeating here. First, education reform requires patient, consistent commitment, a virtue noticeably lacking in most previous reform efforts. Corporations, if truly concerned by increasingly less-qualified employees, must be willing to dedicate time, energy and money for the long pull. Companies that are looking for quick results are better off investing scarce resources elsewhere. American business is frequently chastised for its short-term planning horizons. If ever there was an issue where consistent leadership and long-range vision are needed, education is it.

Politicians must remember that education issues do not lend themselves to credible campaign promises. Although it is laudable for Presidents and Education Secretaries to re-establish education as a top priority, it is foolish for them to promise four year solutions. No single Administration can achieve revolutionary changes. A more valuable legacy would be to develop a long-term plan for balanced government intervention and support, and institutionalize its continued implementation through bipartisan advocacy and involvement and realistic entitlements. It may not get as much press coverage, but it will serve our nation better.

Perhaps the greatest challenge of all is that facing educators, for they must withstand the daily pressure to produce results while ensuring that schools meet both children's and society's longer-term needs. Our teachers, principals and administrators have the right to expect appreciation for the difficulty of their task from those who claim to support their efforts.

Second, real reform is impossible unless we are willing to re-examine our assumptions about the value, purpose and nature of education. As a nation we have made some fundamental decisions about what and how to teach our children. Yet all too frequently, even as we recognize the need for reform, we forget to go back to the beginning and review what these decisions have been and whether they truly serve our needs. As with any complex issue, the surface details of education simply do not provide an adequate, or even accurate, look at the problem. Relying on superficial understanding to direct reform guarantees disappointment. Indeed, it is a formula for the kind of performance we have seen in this country over the last forty years - lots of talk, lots of money, and very little real change or progress.

Finally, both business and the federal government have a real contribution to make in education reform.

Business, however, cannot be allowed to overplay its hand. Although corporations can, and do, participate in very meaningful ways, they can also serve to exacerbate many underlying problems. Worse, over-reliance on their support may undermine the important role of schooling as both social and cultural institution, and compromise those educational goals, like equality, deemed appropriate by democratic society. The federal government must play an important leadership role and act as a balance against business demands on education.

Much work remains, both in understanding the problem and in developing and implementing solutions which really help. Throughout this thesis, I have been sometimes surprised by my own conclusions and frustrated by what I still have left to learn. If, in the process of my own discoveries, I have contributed to a deeper appreciation of the issues, the effort has been worthwhile.

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