

# Education

*in the*

*Twenty-first Century*

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# Education in the Twenty-first Century

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# Director's Foreword

*John Raisian*

The Hoover Institution is currently engaged in nine focused public policy research initiatives, the most ambitious of which is titled *American Public Education*. As Americans, we are increasingly concerned about the academic performance of our children and the structure and organization of our elementary and secondary school systems. The purpose of this Hoover initiative is to examine issues on education policy, offering *ideas defining a free society*—in this instance, recommendations on education policy designed to bring about positive improvement in K–12 education consistent with the founding principles of our free society.

We at Hoover are grateful to Hoover fellow Edward Lazear for organizing this volume and to the team of scholars who contributed their thoughts; they are an august group to weigh in on this subject. This effort serves not only as part of a number of offerings on education policy but also as the first of a projected series that will address major themes associated with long-term trends and public policy formation. Such a series is conceived as collecting thoughts on the big picture associated with trends and concerns that will impact Americans. We must begin a

dialogue sooner rather than later, but the dissemination of ideas about long-term trends and the formation of long-term policy are perhaps the most difficult tasks we face as a society. Whereas much attention is brought to bear on the short-term crisis, we seek to alter the balance by introducing a “big idea” series.

The investment of society’s resources in quality human-capital accumulation is the subject of this volume. We hope that the contributors to this volume will set the course for effective ideas that will positively impact the value of our human resources and, in so doing, raise the quality of life for all citizens.

# Foreword

*George P. Shultz*

The Hoover Institution was founded to study war, revolution, and peace. Quite obviously, such an agenda must lead to education: education for the citizen, education to understand the causes of war and the imperatives of peace, to know the nature of revolutions, and to be able to cope and earn a living in whatever world you inhabit.

Such an orientation also recognizes that access to education must be available to every child, whatever the background of the parents may be. And beyond universality, you look for quality. The least common denominator in education is not at all satisfactory. Every child must be able to achieve his or her utmost potential. So quality must be an integral part of broadly available opportunity. Simple and sensible, yes, but it would be revolutionary if these objectives were realized.

Over the past few decades, however, we have seen increasing recognition of the importance of education and of the huge range of quality that exists in our system: compare precollegiate with higher education; compare the quality of education offered in different parts of our country; and compare it in areas of varying levels of income per capita. Too many precollegiate schools, probably one-half

to two-thirds, are failing to educate students up to any reasonable standard of adequacy.

What can we do to remedy this situation? And remedy it we must, not simply in the interests of the children themselves but to ensure the healthy operation of our society. We live in a new age, variously characterized, but probably aptly described as the knowledge age. In such an age, studies by economists over several decades that show the high rate of return to education would be likely to show even higher returns. To put the point in reverse fashion, they would be likely to show that those without an education or with a low-quality education are unable to take advantage of opportunities and to cope adequately with the new environment of the knowledge age.

That new environment creates all sorts of challenges to the process of education itself. Children learn all day long and not only in the classroom. They have access through their nimble fingers to computer and television screens that contain an astonishing and escalating array of ideas and information. At the same time, within the school environment and what is traditionally called "homework," there is tremendous room to use new means to stimulate and broaden the process of learning.

Recent years, then, have seen this culmination of forces: the recognition of the failures in our schools, the transcendent importance of correcting those problems, and the new opportunities for learning presented by the new technologies.

So scholars at the Hoover Institution have turned to this subject in a concentrated way. The present effort builds on a tremendous background. Three decades ago, in their classic *Capitalism and Freedom*, Milton and Rose Friedman foresaw the problem and wrote compellingly about the desirability of giving all parents, not just wealthy ones, a choice of where their children go to school and about the virtues of introducing the idea of a competitive marketplace to the process of education. These days, this idea of

choice—in a halting manner, to be sure—seems to be taking hold. Certainly attention is being focused on what should be done.

Suppose you have the task of designing a system of pre-collegiate education for the United States and you can start with a clean slate. What would you propose? Where would you start? You know the new technologies can make a difference in what your child needs from the school and what can be obtained elsewhere. You know that there is a wide scope for use of these technologies in the schools themselves. However much you are impressed with the new technology, you would certainly begin with a few of the things that we all know from our experiences and common observation:

1. Parents, by and large, care about their children and have a shrewd sense of what is good for them. So base the system on parental control. Advice from professionals can help, but such experts often disagree. When they agree, they tend to be trendy, and trends change. Who is to choose among the various offerings? Let the parents do the choosing! Of course, some may argue that not all parents care and that some children have effectively been abandoned by their parents. Even in those tragic cases, however, the effort by most parents to choose can have a positive impact on the quality of the schools and thereby benefit all children in the schools.

2. Parents know that certain basic skills are essential to reasonable life prospects. Comfortable use of the English language, written and spoken, is primary.

A second language is certainly desirable, especially Spanish, since it is so widely used in our country. But the key is English, starting as early in life as possible. Certainly English should be the language spoken in the schools.

In California recently, an initiative to ban bilingual education in the state's public schools passed overwhelmingly, receiving 61 percent of the vote. This initiative was opposed



by the teachers unions and the educational establishment, but results are already pouring in. Children learn rapidly, and their ability to master English comes quickly and is tremendously beneficial to them. Here, parents who expressed themselves at the voting booth turned out to have a greater sense of what's good for their children than did the educational establishment.

3. As essential as English is the language of numbers and the ability to use numbers. Beyond sheer arithmetic are the abstractions of mathematics, essential in themselves but also a prime way to develop a child's power to reason.

So the language of reading and writing and the language of figuring and reasoning are the essential underpinnings for students to gain access to the vast array of substance that we call "education." There's nothing new, nothing revolutionary, in this idea, enshrined as it is in the mythology of "readin', writin', and 'rithmetic." Beyond these skills and their use, education, a continuous process, includes values and priorities. In this regard, reflection on many of my own learning processes leads me to sports, military service, business, church, my family, and to the opportunity for public service. I won't go through all these areas; let me use just one example taken from sports.

A great value that everyone must learn is the importance of accountability. Many people spend their lives trying to avoid accountability, but life is much more satisfying if you learn how to step up to it. In golf, the process is relentless. There you are on the putting green with a putter in your hand. After receiving whatever advice you're entitled to, you are the one who has to decide on the speed and the break. You are the one who hits the ball. When the ball stops rolling, the result is unambiguous; the ball is in the cup or it is not in the cup. Relentless accountability—a great lesson for life.

To return to our clean slate, we start with a lot of evidence. We know that competition works in field after field. The effects of competition are to lower costs, to increase quality, and to provide consumers with choices as diverse as their varied tastes. There is no reason why this principle should not apply to the process of education.

One piece of evidence readily available to us is the great experiment in competition and choice that took place in our country immediately following World War II. Here came the vets, I among them, who had the benefits of the G.I. Bill. We could go anywhere and have tuition paid while receiving a small stipend to help with living expenses. We and our parents were the choosers. A multitude of serious young people entered the system of higher education with high aspirations and sudden velocity. They were in college to learn, not to play around. This competitive environment hit a system of higher education that had spent four or five years somewhat on the shelf as young people went to war or to work. The result was electric and long-lasting; it was, in fact, a revolution. Today, we have the world's best system of higher education, a system characterized by great diversity. Publicly supported schools still predominate in terms of numbers of students attending, and the schools' quality level has been raised by the competitive process. Why shouldn't this process work just as well in the K-12 arena?

We see the problem when we move from our clean slate to the real world. We encounter huge institutional rigidities that are firmly in place and that possess formidable political capability. Change, we know, is always difficult, but persistence is essential to a revolution that will eventually follow the weight of evidence. And evidence is piling up that choice and competition produce superior results for students in their precollegiate years. That is why parents who can afford to do so often move to areas where there are good public schools. That is why parochial schools flourish

in low-income-per-capita areas and produce demonstrably superior results. That is why a wide variety of private schools have emerged to compete with one another as well as with the public school system. That is why people who live in low-income-per-capita areas are increasingly drawn to the possibilities of enhancing their children's opportunities through exercising a choice.

Consider these facts: One in four children enrolled in a private K-12 school in this country—one in four—comes from a household with an income of less than \$35,000 per year. Another 20 percent come from households with incomes of less than \$50,000 per year. More than half the children in parochial schools come from households with an income of less than \$35,000 per year and one in ten from households with less than \$15,000 per year. The parents of all these children have to put up some money to send their children to these schools. Certainly there are scholarships, but parents still need to pay a portion of the tuition—and they pay in after-tax dollars.

In the Children's Scholarship Fund, an effort initiated by two creative philanthropists, Teddy Forstmann and John Walton, private scholarships go, in effect, only to children from low-income households. The applicant has to put up \$1,000 to supplement this private scholarship. The Fund has been absolutely inundated with over 1.25 million applications—and from households with low incomes that are going to have to put up \$1,000!

You have to ask yourself what the reason is for this. The answer is clear. Caring and observant parents can easily see what is taking place. People who have the resources to do so live in areas where there are good schools, good in part because there is heavy parental involvement in them. These parents have the financial capacity to exercise a choice, and they do so. If they don't like the public school, they have the capacity to pay double, that is, to pay their taxes for a public school and then pay again to send their children to a private school, and many do just that.

People in low-income-per-capita areas have observed this and are becoming more knowledgeable about it. A revolution in their thinking is underway. They are beginning to realize, more and more, that a system of choice is not about children of wealthy parents; it's about them, because the wealthy children already have a choice. They want to be able to exercise a choice, too. They think that they, as parents, can make a better choice than the people operating the public education monopoly.

Let me take you finally to a different subject: Social Security. Our Social Security system was designed under the guidance of Franklin Roosevelt, a shrewd politician. A lot of thought went into the way the system was set up. Roosevelt saw clearly that, to work over a long period of time, Social Security could not be looked upon in any way as a welfare system. To work, Social Security payments had to be a matter of right. He encouraged the notion that, if you pay into something, you will get something out. With all due respect to the mythology of the Social Security system, the reality is that you do have money deducted from your paycheck. The money goes into something called "Social Security," and you do have benefits that are calculated somewhat in relation to your level of payments. The payments are a matter of right. It's not a matter of whether you're poor or not; it's a matter of right.

I think that education needs to be considered in the same way, that having an educational opportunity that is in considerable part publicly funded, in this case from taxes levied at the state and community levels, is a matter of right. But it should also be a matter of right that you, the taxpayer and the citizen, have control over where you spend that money because you, the parent, care about your child and you want to guide that child to the place of learning that will be most beneficial.

Experimentation and experience are rapidly producing increasing evidence of what works and what does not work. Hoover scholars will continue the search for the

right answers, looking at evidence, accumulating insights, and presenting a wide variety of ideas, as they do in this volume. In the end, what matters most to young people and to our society is this simple maxim: the child comes first; use what works and throw out what fails the child. This simple maxim presents a compelling measure of the need for change, for to follow it would amount to a revolution!

# Introduction

*Edward P. Lazear*

This book is an outgrowth of the desire at the Hoover Institution to focus on issues that are of essential policy relevance. Right now, few issues are more important in the United States than improving education. This introduction summarizes the key arguments made in the book's essays. The summary is followed by a discussion of some of the key policy questions in education. More will be said on the nature of the book below, but let us get to the essence first.

## THE IMPORTANCE OF EDUCATION

In his Foreword, George P. Shultz states that education is failing too many of our students. It is essential to remedy the situation, he goes on to say, because there is simply too much at stake. On the whole, parents know what is good for their own children. The usual argument for limiting parental discretion is that there are certain parents who neglect their children or who simply do not have the information necessary to make the appropriate decisions. Although this is true, Shultz points out that even were this the case, as long as a significant fraction of the population cares about the quality of their children's education, the

schools will be forced to rise to the standard demanded by diligent parents.

Shultz argues that there are a few themes that should be part of any educational agenda. First, he views English-based education as essential, because English is by far the dominant language in the United States. Children who are not firmly grounded in English will have difficulties throughout their entire lifetimes. Second, accountability is key, and what Shultz means by accountability is not only accountability for the school but accountability for the individual. Students should be held accountable for their actions and for their own education. Third, competition among schools is important because it lowers costs, increases quality, and gives individuals choices. Shultz sees choice as a matter of right. Education in this country should be a right, and the choice about how that education is delivered should be a parental right. In sum, he concludes that the child comes first. We should keep what works and throw out what fails. Indeed, he argues that doing this would be revolutionary.

A natural starting point is to ask, "Why is education so important?" Gary S. Becker points out that human capital is the most important part of the economy, and human capital in large part is produced by formal education. Furthermore, the importance of education has grown in recent decades, and new technology for delivering it, such as distance learning, will help it grow even further.

Becker contrasts human capital with physical capital. Physical capital, that is, the machines, buildings, infrastructures, and tangible assets, while important to the economy, is an overrated factor of production. Becker argues that an appropriate accounting of the capital in society would show that human capital accounts for a much greater portion of the total capital stock than does physical capital. Good evidence for this, he argues, is provided by the crash of the stock market in 1987. The effect on the economy was minimal because it affected primarily physical capital and not human capital. Indeed, because the

stock of human capital did not fall during that period, there was not a large drop in the total stock of capital, even if one believes that the market decline reflected a real fall in the value of physical capital.

Although formal education is important, individuals continue to acquire human capital throughout their lifetimes by learning on the job and in other ways. Becker believes that significant growth in the economy will come from increases in human capital, which in turn stimulate technological change.

## EDUCATION AND GROWTH

Education can affect technological change through a number of different channels. First, a more educated population may create new technology by inventing more and better things. Second, a more educated population might simply produce more output per unit of time. If education increases over time, then productivity might increase over time, resulting in growth.

A number of authors have examined the relation between growth and education. Two of the most important contributors to the literature have essays included in this book. One, Robert Barro, summarizes comprehensive work that examines many countries over a period of more than three decades. Barro points out that there is an important distinction between the quantity of education and its quality, and that the distinction matters for interpreting and measuring the effects of education on growth. He finds that both quantity and quality affect growth. What do we mean by the quality of education? Barro measures the quality of education by outcome variables, most notably test scores on standardized exams. He argues that test scores are a reflection of educational quality and have effects on economic activity. In particular, science and math test scores have a positive influence on economic growth. Part of these test scores reflects inputs of the school, and part may also reflect culture and the effort



of the individual students involved. Hours of work vary significantly by country. Hours of school attendance and homework vary by country as well. No one would be surprised to find that the more input there is, the more output.

Barro argues that human capital is extremely important, primarily in terms of the ability of societies to grasp new technology and to help its diffusion throughout the economy. The larger its stock of human capital, the more quickly a country can use any given amount of new technology. He also argues that physical capital can be changed very rapidly, but that the stock of human capital, which is imbedded in the population, changes only slowly. It is therefore important to make investments in human capital over a significant period of time.

Robert Hall also has examined the effects of education on national output. He does so primarily by focusing on productivity. Hall and Charles Jones have found in other studies that although education does not explain all of the variation in productivity around the world, it is an important determinant of productivity variation. The United States is not the highest in its index of education, but the combination of high levels of education, high investment in physical capital, and high efficiency all contribute to make the United States the most productive country in the world.

Hall believes that much of this is a result of rule of law and infrastructure. When a country's infrastructure is favorable, crime rates are low and the best people produce rather than devote their energies to corruption. One form of investment is investment in human capital, so Hall argues that the correlation that is observed between rule of law and education reflects, at least in part, causation running from the former to the latter.

Given that education has effects on the macroeconomy, it is not surprising that education affects the individuals in the economy. Education's effect on individual income is well known and has been documented in the economics literature consistently for over forty years. Specifically, those who are more educated receive higher earnings, presumably as a re-