Universal Basic and Secondary Education

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In 1930, there were two billion people on the planet; in 1999, there were six billion people. The twentieth century was the only century in human history to experience a tripling of the human population. What can we anticipate in the next half century?

Today, the population numbers 6.6 billion. If current fertility rates persist without decline, we will be at 11.7 billion by 2050, a near doubling. Since roughly 1960, however, worldwide annual growth rates have dropped by half, from 2.1 percent per year to 1.1 percent per year. It's reasonable to anticipate a moderate and continuing decline in levels of fertility. If that happens, the United Nations projects a population of about 9.1 billion people in 2050. That number is extremely sensitive to what happens between now and then, and particularly to what we do today and tomorrow to educate people and provide them with reproductive health care.

By 2050, we can reliably anticipate four major changes. One, a much bigger population: whether it's two billion or four billion more people, we don't really know. All of that growth will be in poor countries. Two, we anticipate that the population will be growing more slowly, and it's possible that worldwide population growth will end. Three, the population will be much older than any human population before. For example, in the year 2000, for the first time in human history, the number of people sixty years and older exceeded the number of people between the ages of zero and four. By 2050, we anticipate that there will be three and a half times as many people sixty and older as between zero and four. A minority of grandparent-aged people will have grandchildren. Four, the world will be more urban. From 2007 on, there will be more people living in cities than in the countryside. All of the billions more people that we'll add by 2050 will be living in the cities of the poor countries. It will be a world different from the one we grew up in.

I did a survey of the kinds of panaceas people have proposed for dealing with the problems associated with widespread poverty, environmental impact, political and cultural conflicts, and rapid population growth. Panaceas come in three varieties: a bigger pie, fewer forks, and better manners. A better pie means let's increase productive capacity. Let's use technology to make more of what we want and reduce the unwanted effects of our affluence. The fewer forks proposal says let's slow population growth, and let's moderate or eliminate irrational consumption. The better manners school says let's reduce violence as a means of solving our differences. Let's eliminate corruption in governance. Let's reduce inequities between rich and poor, young and old, male and female. Let's have more efficient markets globally and locally.

If we do not educate all of the world's children well, with the skills required to master information, we prevent them from participating at the leading edge of the world's economy. And if we do not educate all children well, with the values required to solve the problems of poverty, the environment, conflict, and rapid population growth, those problems will still be with our children after we are gone.

The idea occurred to me that educating all children well for ten to twelve years could support all three of these approaches, depending on the values instilled by such education. It could increase global capacity to produce and use technology. It could facilitate lower fertility. It could increase demand and competence for better governance. This idea became, with the visionary leadership of Leslie Berlowitz, the basis of the Academy's program on universal basic and secondary education. I've been fortunate to lead this program since 1998 with David Bloom, an Academy Fellow at the Harvard School of Public Health.

Reports of this project are now available on the Academy's website. A book on *Educating All Children: A Global Agenda* will be published in January 2007 by MIT Press, and we published an essay on this project as the lead article (June 2005) in the journal *Finance & Development*, which is distributed by the International Monetary Fund. That was the first issue the IMF ever devoted to education, and it was a privilege to write the lead essay for them. We also published a lead article on the goals of universal basic and secondary education in the September 2006 issue of *Prospects*, UNESCO's review of comparative education.

We have a modest goal. We want to understand what the world would be like if all children had ten to twelve years of high-quality education, and what it would take to achieve such a world by 2050 or sooner.

One of the obstacles is the belief that we can't afford to provide a high-quality education to all children. We disagree, although it's difficult, for several reasons, to find out how much it would cost. First, the cost per child who is not now in school probably differs from the cost per child already in school. The children not in school live in more remote areas; they are poorer; they are often a minority; they may be handicapped. Second, access to schooling at the present level of quality, which is poor overall, may not entice parents to send their children to school in developing countries. We don't know how much more it would cost to get the quality improvements we need to make schooling attractive. Third, the Western model of the school, with a teacher in a building, is very expensive. It may not be the model that the developing world can afford or will want to use. With technological change, it may not even be the best way to deliver education. For all these reasons, costs of universal education are uncertain.

My colleagues, the economists who participated in this study, did some pioneering work. They estimated that universal basic and secondary education for developing countries would cost somewhere between $34 billion

and $69 billion more per year than these countries are presently spending on primary and secondary education.

But money is not the only problem. First, we lack good data about the situation. We guess that 100 – 115 million children are not in primary school, while hundreds of millions more are not in secondary school. It is a partially informed guess, but nevertheless a guess. Then there are *economic disincentives*. Families value more the time their children spend working and earning an income or handling chores than the time children spend in school. There are *competing demands*. Education competes for scarce national resources with building roads, providing medical care, strengthening national defense. There are *political obstacles*. When there's a civil war, school is the last thing that people think about. Some leaders may not want all their children educated. There are *cultural barriers*. Discrimination may inhibit educational participation for girls and ethnic minorities. And there's the *historical context*. Different countries have different histories, and it may well be that the needs for education systems differ. One size does not fit all in education.

Looking forward, at the current rate of progress, roughly one in six children at the primary school level will still not be enrolled by 2015. That's the year when the Millennium Development Goals promised that all children would be in primary school. Thirty percent of secondary-school-aged children are still not enrolled in school. Yet the participants in the Academy's UBASE project believe that universal, high-quality primary and secondary education is achievable by 2050.

We'll need many changes. One is open discussion of the goals of education. What do we want education to achieve? We need improved effectiveness and economic efficiency in education. Right now, it's a costly and ineffective process. We need a commitment to high-quality secondary education. We need international recognition that different kinds of education systems are appropriate. And finally, we need more money – which will follow from giving a higher priority to education.

Let me step back and propose a bigger picture. In the nineteenth century, the countries that mastered the chemistry and physics of the day and put materials to work by means of the Industrial Revolution had the economies at the leading edge of the world's economy. In the twentieth century, the countries that were at the leading edge of the world's economy mastered energy, principally from the fossil fuels of oil, coal, and natural gas, and put that energy to work driving their economies. We're now living with the consequences and problems of those achievements of the nineteenth and twentieth centuries. In the twenty-first century, I submit, the countries that will be at the leading edge of the world's economy are those whose people best master information and put that mastery to work in their economies.

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Humanities Initiative

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In 1997, the American Academy of Arts and Sciences began work on an Indicators Project in the humanities. Its purpose is to establish a framework for the compilation, analysis, and publication of comprehensive trend data about the humanities that will serve researchers, policymakers, universities, foundations, museums, libraries, humanities councils, and other public humanities institutions. Better statistical tools will provide answers for basic questions about undergraduate and graduate degrees in the humanities, employment of humanities graduates, levels of program funding, public understanding and impact of the humanities, and other areas of concern within the humanities community. The project is supported by a generous grant from the Andrew W. Mellon Foundation.

The Humanities Indicators Project is modeled on the *Science and Engineering Indicators* produced biennially by the National Science Foundation under the auspices of the National Science Board. Although the National Endowment for the Humanities has had authorization since 1985 to support the production of similar data and indicators for the humanities, the agency's leadership has not felt financially able to launch such an undertaking, and Congress has not appropriated specified funding for such an effort.

What do we mean by the phrase "humanities indicators"? *Indicators* are descriptive statistics that chart trends in an area of interest. They describe; they do not explain. If done well, they can provide a common starting ground for arguments about the nature or rate of change in, for example, funding or employment. They answer "what" questions, not "why' questions. They can be somewhat like the Delphic oracle. Their interpretation is not always straightforward. They may mean different things to different observers.

We are currently organizing the Indicators around four large themes: 1) education in the humanities; 2) research and funding for the humanities; 3) the humanities workforce; and 4) the humanities in American life. There will be several subdivisions within each of those large categories, such as primary and secondary education; postsecondary education; graduate education and the scholarly pipeline; public and private funding; careers in humanities professions, particularly the fate of Ph.D.s in the humanities; public participation in the humanities; and the status of libraries and museums. We would like to have at least four indicators within each category that cover different aspects of the topic; although at present we think that we can do

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