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## Preparing Children for the Future

The U.S. educational system was designed a century ago to prepare children to hold jobs and raise families in a world that relied primarily on physical labor. Because of the large role of agriculture and an abundance of natural resources, the nation could prosper even if many young people did not develop their full intellectual capabilities. During the 20th century, the United States depleted major natural resources while incurring a huge trade deficit. Now it faces a future in which it must increasingly turn to high-technology products as a source of economic security. In this area, it will be competing with countries whose young citizens are demonstrating greater academic competence than ours.

Two examples are Taiwan and South Korea. Unlike the United States, these nations have emphasized raising the educational standard of their whole populations rather than that of an elite fraction. As a result, their children achieve better average test scores in science and mathematics than do our children, many of whom fail at school. In an increasingly knowledge-based global economy, unsuccessful students tend to be only marginally employable, and the wages of the unskilled have been steadily falling. Unless changes are made, the social and budgetary costs of educational failures in the United States are likely to increase.

The need to improve the U.S. educational system has been recognized by a number of educators and foundations. The Carnegie Corporation of New York has made long-term determined efforts to enhance the nation's understanding of child and adolescent development and to foster better outcomes for our young people. A recent Carnegie publication, *Years of Promise*,\* provides information about changes needed to achieve better results in the education of children aged 3 to 10. "During these seven years, children make great leaps in cognition, language acquisition, and reasoning, corresponding with dramatic neurological changes" notes the report, and it provides references to substantial bodies of research confirming that the educational attainments of nearly all U.S. children could be greatly increased. Many factors influence children's intellectual development, among which are the skill, warmth, and enthusiasm of teachers. However, as the report states, "Schools may have the primary responsibility for children's formal education, but their educational success is influenced by far more than what happens to them in school. Families, preschools, religious and other community institutions and, beyond these immediate influences, the broader array of institutions that bear on children's lives—the media, employers in all sectors, higher education, and government—have shared responsibility to contribute to children's learning and healthy development."

Parental involvement in the education of children is especially important. From age 3 to 5 in particular, children should be read to frequently. In these years, when brain activity is high, parents have a unique opportunity to foster a love of learning. As children grow older, parents should maintain involvement in their education, including interaction with teachers. Research has shown that these activities have beneficial effects. When children are in primary school, parental influence decreases and is in part replaced by that of peers and TV. Today, most single parents work, as do about 75% of married mothers of children in school. A frequent result is latchkey youngsters who come home to an empty house and a TV set. A few TV programs are suitably educational; others are trash. The Carnegie report states that there are about 20 to 25 violent acts per hour in children's programs. By the time they reach the age of 18, Americans have typically watched 15,000 hours of TV, which is more time than they have spent in classrooms. Studies have shown that children who are heavy TV watchers tend to put little effort into schoolwork, get lower grades, and have weak reading skills. The report strongly recommends improved TV programming. It also points out the value of community after-school activities, but warns that quality standards for such programs need to be established and enforced.

Unless our educational system is substantially improved, the U.S. economy and national security will deteriorate. The education of all children from their early years through adolescence should have a long-term high priority.

Philip H. Abelson

\**Years of Promise: A Comprehensive Learning Strategy for America's Children* (Carnegie Corporation of New York, September 1996). The executive summary is available at <http://www.carnegie.org>.