Universal Basic and Secondary Education

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Caldwell observes: "Problems commonly described as 'environmental' are therefore often 'human behavioral.' For example, our assumptions and assessments regarding environmental disasters commonly misconstrue their causes, externalizing them in nature rather than internalizing them in misguided intentions and unrealistic expectations" (1999:8).

Caldwell's proposed responses to his environmental concerns are four: evaluation of major social-environmental trends, universalizing an ethic of environmental stewardship and sustainability, persuasion through communication, and leadership in the formulation and explication of public policy. Caldwell quotes Kagan (1991:169): "Any successful society must be an educational institution."

We offer a hypothesis: educating well all of the world's children from the age of 6 through 16 would promote all four of the responses Caldwell proposes, would go a long way toward reducing or ameliorating the driving forces of the environmental situation that Caldwell identifies, and would have many other private and social benefits as well.

As of 1995, about 1.25 billion children in the world were aged 6 to 16 years old, inclusive (United Nations, 1998). Of this "school-age population," about 175 million lived in the more-developed countries (Northern America, Japan, Europe, Australia and New Zealand). About 1.07 billion lived in the less-developed regions (all of Africa, Latin America, the Caribbean, Melanesia, Micronesia, Polynesia, and Asia excluding Japan). Of those school-age children in the less-developed countries, about 164 million lived in the 48 least-developed countries as defined in 1998 by the United Nations General Assembly. According to the medium projection of United Nations Population Division (1998), the school-age population will not change much in total size in the next half-century but will shift dramatically between regions. The school-age population in the more-developed countries is expected to drop by 24% between 1995 and 2050, while the school-age population in the least-developed countries is expected to increase by 71% between 1995 and 2030 (see Figure 1).

It is difficult to estimate how many school-age children are being educated well, whether in a formal school or otherwise. Summary statistics on primary school enrollment are available (Williams, 1997:122), but enrollment is an unreliable surrogate for the number of children who are receiving an education of high quality. Late in the twentieth century, about three-quarters of the children eligible to attend primary schools in developing countries did so. The 130 million children who were out of school were disproportionately girls, and were mainly illiterate (Colclough and Lewin, 1993). A much smaller fraction of secondary school-age students are enrolled in school or receiving other education.

Educating all children well from age 6 to 16 would:

- increase the children's eventual productivity as workers;
- increase local capacities to use available technology and to develop technology appropriate for local circumstances;

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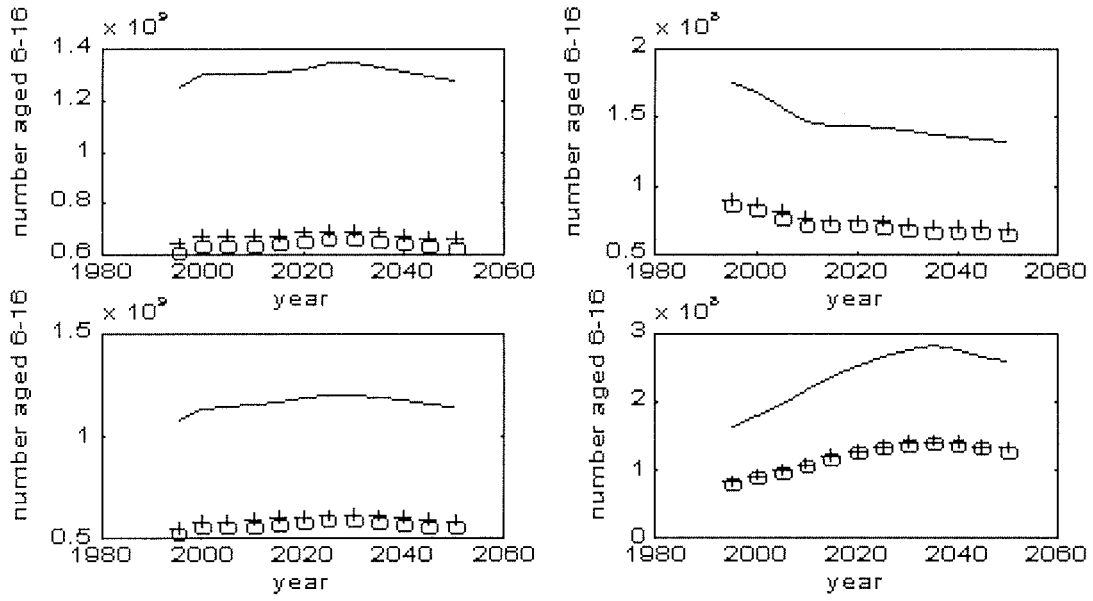

Figure 1. Anticipated Numbers of School-Age Children Worldwide (upper left), in More-Developed Countries (upper right), in Less-Developed Countries (lower left), and in Least-Developed Countries (lower right)

Note: Solid curve, both sexes; +, males; o, females. Original figure, based on medium projection of United Nations Population Division (1998).

- improve understanding of nutrition and disease prevention at home, thereby improving family health and child-rearing;
- reduce inequities between males and females;
- link everyone more closely to local and world cultures;
- strengthen the capacity of citizens to demand and deliver effective governance; and
- provide a crucial reserve of flexibility for a populace faced with unforeseeable contingencies.

In addition, increased education is strongly linked to slower population growth through several mechanisms, including: later marriage and later age at first birth, higher income and a greater value of parental time, greater use of family planning services, greater parental desire to invest time and money in the children they have, increased infant and child survival rates, and increased access for women to roles other than child-rearing.

Previous efforts to promote education for all (Colclough and Lewin, 1993) include notably the 1990 World Conference on Education for All, held in Jomtien, Thailand, under the leadership of UNESCO, UNDP, UNICEF, the World Bank and 15 other international and bilateral assistance organizations (UNESCO, 1996; UNICEF, 1998). The World Bank (1995) has published its priorities for education. Several scholars have also envisioned broadening the reach of education (Miller, 1988; Cummings and McGinn, 1997; Delors et al., 1996; Husen, 1997; Dalin et al., 1994; Hallak, 1990; Coombs, 1985). None of these reports takes on the linkage of basic and secondary education with other parts of the education system and with other sectors, and a balanced consideration of all modalities of education (in addition to the classical schoolroom). There is ample room for further inquiry and discussion.

Instead of assuming that education for all children age 6 to 16 is self-evidently the highest priority, the goal of universal education of high quality for all children aged 6 to 16 should be examined as one of a number of competing and complementary ways of improving human well-being. Fresh perspectives are needed from economists, developmental psychologists, demographers, statisticians, historians, cultural anthropologists, public health workers, and appropriate others without extensive prior involvement in education as a subject.

A global plan of action to ensure an education of high quality for every child from age 6 to 16 should be based on scholarly studies of policy options and strategies of implementation. Studies should address the following topics:

- Basic facts concerning school enrollment and other educational activities, educational attainment, and educational needs among 6- to 16-year-olds; sources and quality of basic statistical data, patterns, trends, and costs, by region, subregion, time period, and for countries at different stages of development.
- Intellectual history (both Western and non-Western) of the idea of universal basic and secondary education (UBASE); comparative anthropology of how other cultures prepare youth for adulthood; varying motivations (if any) for UBASE in different regions of the world; areas or issues of controversy.
- History of policies, legislation, and programs related to UBASE in various countries, international agencies, and donors such as foundations and nongovernmental

organizations (NGOs). By what processes have policy options been formulated, legislatively or otherwise? How have educational priorities been established, both within the field of education and in relation to larger issues of demographic change and economic, social, environmental, and cultural development?

- Projected consequences from 2025 to 2050 of achieving UBASE, including political, social, demographic, health, environmental, and economic aspects. How might expenditures required to fund UBASE complement or compete with other social goals, especially health?
- Links between education and demographic change. What evidence links primary and secondary education to demographic change? By what specific mechanisms does increased education slow rates of population growth? For each mechanism through which education affects demographic outcomes, how much and what type of education is needed to cause a given degree of change?
- Curricular issues (goals of education). How is "a quality education" to be defined, and by whom? What knowledge, skills, attitudes, and behaviors should be expected from 11 years of education? What, if anything, will be included beyond the fundamentals of reading, writing, and arithmetic?
- Pedagogical issues (teachers and other means of education). Who becomes a teacher? How are teachers trained before and while teaching? How could training be evaluated and improved? How are teachers developed while they are teaching? How are teachers placed in schools? What other factors affect the educational effectiveness of teachers, and with what costs and benefits?
- Monitoring and assessing progress, and evaluating cognitive development and other educational outcomes; examining linkages between UBASE and other aspects of social and economic development; randomized experiments and operations research on the effectiveness of educational systems.
- Obstacles to the achievement of high quality in UBASE, including factors related to financing, politics, tradition, technology of education, and corruption. What are the positive and negative educational roles of traditional religions and cultures? What are the intellectual property constraints on the availability of materials? What are the opportunity costs of educating children for the children themselves, their households, and their communities?
- Comparative approach to changing large, complex systems. What can be learned, for the benefit of educational programs, from national and international efforts to extend and improve other large-scale systems, including agriculture, medical care, public health, defense, information infrastructure, traffic, trade, credit, irrigation and electrification?
- Preconditions, necessary conditions, and complementarities. Which is it most important to eliminate, educational deficiencies, poverty, or ill health? Or must at least two or all three be eliminated simultaneously? What are the prerequisites for UBASE in health, nutrition, and infrastructure? How should implementation of UBASE be sequenced (country by country, region by region, or globally; all grades or age groups at once versus in sequence)?
- Costs, actual and projected, broken down by country or region, and expenditure category (teacher training, salaries, infrastructure, materials, administration). How do expected cost patterns vary by stage of development and by existing educational infrastructure? How important are opportunity costs of education for children and families in poor countries, and how can these costs best be reduced?
- Financing. Local versus international sources, public versus private, short-term versus long-term. What financing strategies make the most sense, given the enormous implications of reallocating resources towards UBASE within countries? What role could businesses play in mobilizing support and money for UBASE?
- Impacts of major trends. How would support for UBASE and the impact of UBASE be affected by trends such as rapid population growth in the developing world; increased numbers of elderly people; increasing urbanization; decreased family stability; increasing contact of different cultures; improvements in the status of women; and many others?
- Implementation and the generation of political will, including the roles of government, business, and NGOs: public versus private, and centralized versus decentralized provision of educational services, including education in nonconventional locations and through institutions other than schools; voucher systems versus direct public education.

A factually based strategy for educating well all the world's children from the age of 6 to 16 could be a valuable step toward addressing Caldwell's environmental concerns.

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