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ROBERT F. ARNOVE

An examination of the Chinese and Indian education systems offers an opportunity to compare the world's two most populous countries, which share common, almost insurmountable, problems overcoming the legacies of foreign domination, semifeudalism, and educational underdevelopment[1] but which differ in their strategies of economic and educational development. At the time of independence in 1947 and liberation in 1949, India and China, respectively, faced the educational problems of massive illiteracy (approximately 85 percent of their adult populations); underdeveloped systems of basic education, which reached less than one-third of the relevant age group; and academic curricula that traditionally had served the narrow interests of domestic elites and foreign colonial powers. These problems, characteristic of most Third World countries, are magnified by the size of the populations of the two countries—China with 1.1 billion and India with 700 million; herculean efforts are required simply to feed and provide basic services to populaces that are increasing by more than 10 million per annum. In tackling these problems, China and India offer dramatic contrasts in their approaches to modernization.

Since independence, India has continued within the capitalist mode, although the state plays a greater role in capital formation and investment than in most Western free-market economies; its political system is based on the English parliamentary and United States federal models of government; its strategy of human resource development has been incremental and accommodative, attempting to expand, extend, and democratize education without radically threatening the advantages of already privileged sectors of the society. Since liberation, China's approach to capital accumulation and distribution is best characterized as a "command economy" in which resources, both material and human, are largely allocated by nonmarket mechanisms;[2] politically, China is a "unitary and 'socialist state of the dictatorship of the proletariat' based on Marxism-Leninism-Mao

[1] Other similarities are striking. The civilizations of both countries have developed uninterrupted for 4,000 years. India and China, at different times in the past, have developed elaborate bureaucratic state systems governing vast expanses of territory and fostering remarkable achievements in the arts and sciences and in industry. Mutual influence in commerce and culture has been profound.

[2] While major industries and basic services are state owned and run, present economic policies permit the growth of a market sector in which peasants are allowed to sell surplus after meeting quotas and in which a variety of consumer services and goods are provided. This private sector, it is hoped, will absorb many of the people who are now underemployed or "waiting for employment."

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Zedong-Thought led by [the] Chinese Communist Party (CCP)";[3] its development style has been that of large-scale mobilizations that, on different occasions, have involved a drastic leveling of privileges of certain social groups (e.g., intellectuals) and the promotion of the interests of peasants and workers in order to achieve a more egalitarian society.

The Chinese revolutionary model of development has considerable appeal to a number of policymakers, political activists, and educators in India, as well as other Third World countries, who are frustrated with the massive suffering they observe, the slowness of change, and the failure of many reform efforts undertaken by various international and national aid organizations and by public and private agencies.

Other assessments of the accomplishments of China in education, as well as other fields, are less sanguine.[4] Some of the most critical, if not scathing, attacks are by high-level officials of the Chinese Communist Party (CCP), in the post-Mao period (1976–). While China's accomplishments have been many, the revolutionary changes that have occurred under successive policy shifts of the CCP also have resulted in monumental errors and tremendous inefficiencies.

A study of educational policies in China and India offers insight into the possibilities and limits of educational reform in countries pursuing different paths to development. Subsequent sections of this essay will review efforts and outcomes in the two countries with regard to these salient problems: (1) massive illiteracy, (2) lack of universal access to primary education and inequities in educational opportunities and outcomes (based on gender, residence, class, or caste), (3) a hierarchical, elitist, examination-oriented education system unrelated to economic needs and productive labor, (4) a large number of unemployed school leavers, and (5) dependence on foreign models, particularly at the higher education level.

Illiteracy

Mahatma Gandhi called illiteracy "India's sin and shame." At the time of India's independence, 84 percent of the adult population was illiterate (75 percent of males and 92 percent of females). The British education policies in India had both undermined the grass-roots, indigenous school systems of the Hindu and Muslim religions and, since the famous February 2, 1835, Minute of Macauly, had put in its place an elitist system designed to train a small class of English-educated Indians serving, in the words of Macauly, "as interpreters between us and the millions whom we govern, a class of persons Indian in blood and colour but English in taste, in

[3] U.S. Army, *China,* Area Handbook Series (Washington, D.C.: U.S. Army, 1981), p. xix.

[4] See, e.g., Nick Eberstadt, *Poverty in China* (Bloomington: Indiana University, International Development Institute, 1979).

opinions, in morals and in intellect."[5] The so-called filtration theory, by which the English-educated elite would disseminate education to the masses, never worked, if it ever was intended to do so.

In combination with the restrictive policies of British imperialism, the caste system itself has worked against the spread of education. According to the prominent Indian educator A. B. Shah, for 2,000 years the majority of the society's members were "denied access to knowledge on the ground that they did not belong to the proper caste."[6] Similarly, Anil Bordia observes that a principal characteristic of the "Brahmanical system of education," dating from ancient time, is the notion that education "is the preserve of a small minority."[7] As a result of these ancient traditions, which are overlaid with British colonial policy, only 8 percent of India's population was enrolled in some form of education in 1947.

Despite literacy campaigns that have been waged since the early years of this century and despite a plethora of programs in the postindependence period, the literacy rate, according to the 1981 census, has climbed to only 36.17 percent (46.7 percent of males and 24.2 percent of females).[8] While these figures represent a substantial gain in literacy, during a period in which the population doubled, the goal of universal literacy seems as elusive as ever. In absolute numbers, there were 150 million more illiterates in 1981 than there were in 1951, and currently more than half the world's adult illiterates are found in India. Furthermore, inequalities in male-female, urban-rural, and caste-noncaste education have persisted. Table 1, based on 1961 and 1971 census data, highlights these differences.

While India has initiated a series of campaigns designed to eradicate illiteracy and provide useful basic education to its adult population, there has been no massive mobilization to eliminate illiteracy within a specified period of years comparable to the literacy campaigns in countries such as China, Cuba, or Nicaragua. Instead, there has been a shifting of foci and conceptualizations of adult education efforts, often in synchronization with changing fashions in the international technical assistance community: "social education" during the First Five-Year Plan (1951–56), followed by "functional literacy" programs (beginning in 1966–67) and then by "non-formal education" in the mid-1970s, and most recently a return to "adult

[5] For futher discussion of indigenous school systems, see Joseph Di Bona, "Indigenous Virtue and Foreign Vice: Alternative Perspectives on Colonial Education," *Comparative Education Review* 25 (June 1981): 202–15. Macauly cited in Aparna Basu, "Policy and Conflict in India: The Reality and Perception of Education," in *Education and Colonialism*, ed. Philip G. Altbach and Gail P. Kelly (New York: Longman, 1978), p. 59.

[6] A. B. Shah, "Education in India: Some Problems," in *Social Context of Education*, ed. A. B. Shah (New Delhi: Allied Publishers, 1978), p. 137.

[7] Anil Bordia, "Problem Areas in Nonformal Education," in Shah, ed., p. 191.

[8] For the purpose of the census, a person is defined as literate if he or she can read and write with understanding in any language.

TABLE 1
LITERACY RATE IN INDIA, 1961 AND 1971

	Total Population (%)			Scheduled Castes (%)			Scheduled Tribes (%)		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1961:									
Urban	57.49	34.51	46.97	32.19	10.05	21.18	30.47	13.42	22.41
Rural	29.09	8.55	19.01	15.06	2.51	8.89	13.36	2.91	8.16
Total	34.43	18.70	24.02	16.95	3.29	10.27	13.82	3.17	8.53
1971:									
Urban	61.27	42.14	52.44	38.92	16.99	28.64	37.10	19.61	28.83
Rural	33.76	13.17	23.73	20.04	5.06	12.77	16.91	4.36	10.68
Total	39.45	23.60	29.45	22.36	6.44	14.67	17.63	4.85	11.30

SOURCES.—Department of Social Welfare, *Women in India—a Statistical Profile* (New Delhi: Government of India Publications, 1978), tables 4.1 and 4.2, pp. 117–21; *Yojana* 22, no. 18 (October 10, 1978), tables on pp. 38, 40.

education" (in 1978).[9] Financial responsibility also has tended to shift from the national level to the state level and to the private sector. While there are a number of strengths in more decentralized, grass-roots efforts at literacy (see discussion below), there may not be sufficient resources or momentum present in such efforts substantially to reduce illiteracy.

The government of India itself, in the late 1970s, referred to the "half-heartedness of past effort" in tackling illiteracy; for example, although the Education Commission of 1964–66 called for the eradication of illiteracy in 10 years, the proposal did not find its way into the Fourth National Plan.[10] The rate of increase in literacy, in fact, declined from 7.35 percent between 1951 and 1961 to 5.43 percent between 1961 and 1971. Critics have further pointed out that, in the absence of a national commitment, voluntary efforts to provide the basic skills of literacy and to raise the political consciousness of disadvantaged groups are met by harassment and that the response of vested interests who are satisfied with the status quo and the ignorance of lower-class groups is often brutal.

China, by contrast, is frequently cited as a country that has demonstrated the national will to eliminate the pervasive illiteracy it inherited from its feudal past. H. S. Bhola, in a 1982 report to Unesco on twentieth-century literacy campaigns, has stated that "China's efforts in anti-illiteracy are clearly the greatest experiment in mass education in the history of the world. A nation of some 970 million in some 30 odd years had become

[9] For further discussion, see G. R. Madan, *Indian Social Problems*, 2 vols. (New Delhi: Allied Publishers, 1982), 1:240; and Victor Jesudason, Roy Prodipto, and T. A. Koshy, *Non-Formal Education for Rural Women* (New Delhi: Allied Publishers, 1981).

[10] Ministry of Education and Social Welfare, "National Adult Education Programme—an Outline" (New Delhi: Government of India, 1979), p. 2; Rosario Gomez, *Adult Education in India and Tamilnadu* (Madras: State Resource Centre, 1982), p. 9.

a nearly literate society."[11] At the time of the revolutionary triumph of the CCP in 1949, China's illiteracy rate was approximately the same as India's (85 percent, with 95 percent of rural populations and 98 percent of women unable to read or write). In 1956, the government and the CCP, with the Decision on the Liquidation of Illiteracy, launched a series of national mass mobilizations, with targeted populations to be reached in successive stages during a 7-year period.[12]

According to Bhola, the first lesson to be learned from the case of China is that "the commitment to act and achieve seems to rise above lack of infrastructures, scarcity of material resources and poverty of technical sophistication." Second, China demonstrates that "literacy is assured of success when conducted in a larger context of adult education, political socialization, abolition of class structures, and economic development."[13] The results of these efforts are that over 100 million Chinese aged 14 to 45 became literate between 1949 and 1966 (the year the Cultural Revolution began) and that another 37.7 million have subsequently become literate.[14]

Yet China is still far from being a universally literate society. Official estimates are that the illiteracy rate is approximately 25 percent. While urban illiteracy rates are under 10 percent, there is widespread illiteracy in the countryside, where some 200 million people are considered to be either illiterate or semiliterate.[15] According to a 1978 report by *China News Analysis*, "in the villages where 80 percent of the population live . . . it seems safe to say that at least 60 percent of the population must be below the normal standard of literacy" (my translation).[16]

It is widely stated in official circles that illiteracy rates increased substantially because of the upheavals of the Cultural Revolution (1966–76), when many schools were closed for 2 years or more. Ironically the Cultural Revolution was aimed at overcoming inequities in educational access. During this period, many newly literate youths and adults lapsed into illiteracy. The unsettled conditions in the countryside provided few opportunities to practice rudimentary and tenuously acquired literacy. (Literacy in Chinese, as one source notes, requires mastery of some 1,500 characters, which must be learned by rote and practiced continuously.)[17]

To summarize outcomes of literacy campaigns in the two countries: During a period when both countries' enormous populations were doubling,

[11] H. S. Bhola, *Campaigning for Literacy* (Paris: Unesco, 1982), p. 80.

[12] For a description of these stages, see Theodore Hsi-en Chen, *Chinese Education since 1949: Academic and Revolutionary Models* (New York: Pergamon, 1982), p. 24.

[13] Bhola, p. 98.

[14] Ibid.

[15] See, for example, Fei Xiaotang, "Knowledge . . . One of Our Most Valuable Resources," *China Daily* (March 10, 1983), p. 4; and Ge Dewei, "Primary Education Forging Ahead," *China Daily* (March 5, 1983), p. 1.

[16] "Schools," *China News Analysis*, no. 1108 (February 3, 1978), p. 7.

[17] Joel Glassman, "Education," in *China*, Area Handbook Series (Washington, D.C.: U.S. Army, 1981), p. 153.

China achieved a 70–75 percent rate of literacy compared with India's 35 percent. Moreover, the groups with high illiteracy continue to be women and rural populations.[18]

While India's reliance on local and private initiative suggests that the road to more universal literacy will be a long one, fraught with difficulties, there are nevertheless some positive aspects to current literacy efforts in that country. Many adult education programs are inspired by the writings of the Brazilian educator Paulo Freire and his "pedogogy of the oppressed."[19] Instead of a mass mobilization involving the imposition of new cultural and political norms, many of the Indian programs involve a patient waiting (sometimes for a period of over a year) by the literacy workers to gain the confidence of a community. It is the communities themselves that must take the initiative in seeking the help of literacy workers and in determining what use will be made of literacy skills. Whether the Chinesse or the Indian model of adult education is preferable ultimately depends on a person's sociopolitical ideology and philosophy of education.[20]

Basic and Higher Education—Equality of Opportunity and Outcomes

The problem of illiteracy is a reflection not only of the lack of educational opportunity for older generations but also of educational opportunities for the current generation of school-age youth. If basic education is not universally available, and if it is not of sufficient quality and duration, then illiteracy will persist and grow.

Both countries have made remarkable progress in extending basic education to their youth. In India in 1947, only 25 percent of the school-age population (ages 6–17) was in school, and in China, in 1949, only about 20 percent of youth were attending schools. By 1980, India could point to approximately 75 million children in first level education. About 80 percent of the appropriate group was enrolled in primary school (grades 1–5), and the combined primary and secondary school enrollment ratio was 52 percent. China in 1980 had enrolled 146 million children (90 percent of the school-age cohort) in grades 1–5 in over 900,000 schools.[21]

Both countries had also expanded their secondary and higher education systems considerably. In India, there are over 25 million secondary students

[18] In China, it is estimated that women account for 80 percent of illiterate adults. Figures, given by the president of the All-China Women's Federation, cited in Fox Butterfield, *China: Alive in the Bitter Sea* (New York: Times Books, 1982), p. 166.

[19] Paulo Freire, *Pedagogy of the Oppressed* (New York: Herder & Herder, 1970).

[20] It is interesting to note that many of the private literacy programs in India are run by Catholic orders (particularly Jesuits) or by reform Hindu movements, such as the Ramakrishna Mission.

[21] In 1981 and 1982, primary school enrollment declined to 143.33 million and 139.72 million, respectively, reflecting the declining birthrate in China; see Stanley Rosen, "Secondary and Higher Education in the People's Republic of China" (paper presented at the conference on "The Relation between Secondary Education and Higher Education: An International View," July 25–28, 1983, University of California, Los Angeles). Enrollment figures between 1949 and 1982 are summarized in table 1 of the paper.

and, as of 1979–80, 3.1 million university-stage students enrolled in over 4,500 colleges affiliated with 108 universities.[22] In China, there were approximately 57 million secondary students in 1980 (42 million in junior middle school and 14.7 in senior middle school);[23] higher education enrollments totaled 1.1 million in nearly 700 institutions. (In 1949, there were only about 90,000 students in 69 higher education institutions.)

In assessing equality of educational opportunity, a central question concerns the participation rates of different social groups in different levels of a school system. Besides the question of access to school, it is necessary to ask who drops out and who succeeds through the education system.

Both countries have very high dropout rates at the elementary school level as well as at subsequent school levels. In India, 63 percent of the students drop out before completing 5 years of primary education—there is a 40 percent attrition rate by the end of Class (grade) 1. (Moreover, approximately one-fourth of the students have to repeat either the first or second grade.) There are equally high "wastage" and "stagnation" (repetition) rates at the secondary education level despite a stiff selection process that results in failure for between 40 and 60 percent of those students who take the all-India secondary school entrance examination. Thus, according to Sweeney, "the percentage of the secondary school population that completes the lower secondary programs (and even more so for the higher secondary level) is very small."[24] Less than 5 percent of those who start first grade reach higher education, where over two-thirds drop out.

The Chinese education pyramid, despite its wider base, is also characterized by great loss at the primary and secondary levels and is extremely narrow at its pinnacle. There is a 40 percent dropout rate at the primary school level between grades 1 and 5. Moreover, many do not continue on to secondary education. As in India, secondary education enrollments are approximately one-third as large as primary education enrollments.

In this section, the sources of disadvantage and advantage in progressing through different levels of education will be examined. In addition to reviewing data on differences based on gender and residence, the analysis

[22] Source of enrollment figures: *India 1982* (New Delhi: Government of India Publications Division, 1983), p. 46; for further discussion of the number of higher education institutions, see S. Mathai, *1982 Commonwealth Universities Yearbook*, p. 1366.

[23] By 1982, enrollment in secondary education had declined to 47.55 million, reflecting not only the gradual effects of a declining birth rate but also efforts of educational authorities to restrict enrollments, especially at the senior middle school level to avoid problems of overexpansion of higher levels of the school system, poor quality instruction, and a large number of students with high educational and occupational aspirations that could not be satisfied. See Rosen, table 1, for data.

[24] Leo J. Sweeney, *Republic of India: A Study of the Educational System of India and Guide to the Academic Placement of Students from India in the United States Educational Institutions* (Washington, D.C.: American Association of Collegiate Registrars and Admissions Officers, 1971), p. 10.

TABLE 2
FEMALE PARTICIPATION BY LEVEL OF EDUCATION

	India (%)	China (%)
Primary education	39 (1977)	50 (1979)
Secondary education	30 (1975)	40 (1979)
Higher education	24 (1976)	25 (1981)

NOTE.—Data on India from Unesco, *1980 Statistical Yearbook* (Paris: Unesco, 1981). Data on China from Fox Butterfield, *China: Alive in the Bitter Sea* (New York: Times Books, 1982), p. 166; and Stanley Rosen, "Secondary and Higher Education in the People's Republic of China" (paper presented at the conference on "The Relation between Secondary Education and Higher Education: An International View," July 25–28, 1983, University of California, Los Angeles), table 11.

will focus on distinctions of caste/noncaste (in India) and cadre/noncadre (in China).

Gender

In both countries female participation rates decline at each level of the education system (see table 2). While China has achieved equitable access by gender at the primary level, by higher education the female participation rate is approximately that of India. Concerning entry to the most prestigious higher education institutions, only 23 percent of the first-year students at Beijing (Peking) University in 1980 were female. In 1981, women represented only 25 percent of all new university students.

Rural-Urban

Given the fact that the majority of people live in the countryside and are involved in agriculture, a critical question concerns equality of educational opportunity and outcomes according to residence. Disaggregated data on education for India by rural-urban residence is not as readily available as it is for China. Previously cited data on illiteracy (table 1) indicated that the urban literacy rate was more than double that of the rural area. Moreover, 1971 figures on educational attainment show that, whereas 36.8 percent of urban populations (25 years of age and older) have completed primary education and another 16.5 percent have attained some secondary or postsecondary education, for rural populations the respective figures are 19 percent and 2.1 percent.

While schools have been established in virtually every corner of India and the union and state governments have undertaken free meal programs to encourage poor children to attend schools (and just as important, to ensure a minimally adequate diet), China has engaged in mass mobilizations to extend educational, medical, and cultural benefits to its rural populations (notably the Great Leap Forward, 1958–60, and the Cultural Revolution, 1966–76) on a scale unparalleled by most developing countries. Data

from China should reveal to what extent it is possible to extend more equal benefits to rural populations.

According to Butterfield, while approximately 60 percent of rural students in China actually graduate after completing 5 years of study, only 30 percent or so can be regarded as having genuine, primary-level competence. As Butterfield notes, the main problems are the poor quality of rural schools, the shortage of government funds for them, and continued belief among peasants that it is more useful for their children to work in the fields than to go to school.[25] A recent survey of 2,190 counties (out of a total of 2,600) indicated that the primary reason for school dropouts was families' financial situation or the need for more helping hands.[26] Moreover, because China invests only 1.12 percent of its GNP on education (making it 110th on the United Nations list of spending on education), villages are required to finance their own schools out of local revenues.[27] The result is that impoverished areas fall behind wealthier ones, and in the poor villages even the four-dollar-a-year tuition fee, which may be charged to attend a one-room school (with a few learning materials), may be prohibitively expensive.

China's post-1976 emphasis on the Four Modernizations (defense, industry, agriculture, and science and technology) and its strategy of concentrating on "key points" to maximize scarce resources exacerbate the disadvantages of rural education. National education plans formulated in 1978 call for achieving a minimum of 10 years of education for people living in urban areas but only 7–8 years for those living in rural areas (which is likely to remain an elusive goal).[28] In the aftermath of the Cultural Revolution, specially designated institutions, known as "keypoint schools," have been reinstated. Located in urban areas, the extant 10,000 primary- and secondary-level keypoint schools recruit the most talented students and teachers, regionally and nationally, and are endowed with the best facilities and equipment. Special attention is given to identifying especially bright young students and accelerating their progress through the school system on to the 94 keypoint universities. Shirk has summed up the comparative disadvantage rural populations are at in this competition: "The chances of gaining college admission were 10 times better for a student from an urban key point school I visited in 1978 than for a graduate of an ordinary rural school I visited."[29] Moreover, as Shirk notes, the keypoint national universities distribute proportionately more places

[25] Butterfield, p. 196.

[26] Ge (n. 15 above), p. 1.

[27] Butterfield, pp. 247–48.

[28] Educational planners have set 1990 as the year by which to attain universal primary schooling for rural populations.

[29] Susan L. Shirk, "Educational Reform and Political Backlash: Recent Changes in Chinese Educational Policy," *Comparative Education Review* 23 (June 1979): 183–217, esp. 199.

to provinces with high educational levels (determined by the previous year's entrance examinations).[30] These provinces will tend to be the wealthier and often more urban ones.

Chinese officials are aware of these rural-urban differences. But, they claim, educational opportunity has been equalized over the past 30 years, and the extremes of social class, evident in many countries, are relatively absent.[31]

While class may have been eliminated, cadre/noncadre differences still remain in China. In India the most striking differences in life chances have been determined by one's caste. More recently class/caste status differences are capturing the attention of policymakers.

Caste/Noncaste, Cadre/Noncadre

According to Suma Chitnis, a leading Indian scholar on education and caste, "in a country where 70 percent of the population could be described as poor, illiterate, and powerless, the Scheduled Castes and Scheduled Tribes [have] stood out as being poorer, more illiterate, and more powerless than the others."[32] According to the 1971 census, scheduled castes constitute 15 percent of the total population of India. The constitution of India, article 46, part 4, sets forth directive principles of state policy to "promote with special care the educational and economic interests of the weaker sections of the people, and, in particular, of the Scheduled Castes and the Scheduled Tribes. Article 15 (4) further protects the right of the state, where deemed necessary, to make special provisions for the advancement of socially or educationally disadvantaged groups."[33]

But as Galanter has observed, there is "a wide gap between the law on the books and the law in operation. As in many other areas, the Government's commitment to change greatly outruns its power to effect it."[34] In the first place, the directive principles of state policy, which occur in part 4 of article 46, are "not enforceable by any court." Second, this nonenforceable principle concerning collective rights clashes with enforceable principles of the constitution concerning the rights of individuals. To these legal limitations on affirmative action must be added the "disparity between aspiration and performance, between great commitments of principle and small deployment of resources."[35]

[30] Ibid., pp. 199–200.

[31] John N. Hawkins, "Educational Reform and Development in the People's Republic of China," in *Comparative Education*, ed. Philip G. Altbach, Robert F. Arnove, and Gail P. Kelly (New York: Macmillan, 1982), p. 420.

[32] Suma Chitnis, "Education of the Scheduled Castes and Scheduled Tribes in Maharashtra," in Shah, ed. (n. 6 above), p. 223.

[33] Mathew Zachariah, "Education for Status Improvement: The Use of Positive Discrimination for Scheduled Castes in India," in Altbach, Arnove, and Kelly, eds., p. 223.

[34] Marc Galanter, "Untouchability and the Law," *Economic and Political Weekly* 4, annual issue (January 1, 1969): 131–70, esp. 155.

[35] Ibid.

Since 1947, increasing equality of access to primary education on the part of scheduled caste students has not been matched by more equal participation rates at higher levels of the school system. The failure and dropout rate of these students is extremely high, particularly at the university level. If, as Zachariah notes, "the real test of the effectiveness [of affirmative action policies] is whether members of Scheduled Castes have successfully competed for admissions to professional schools, high-level jobs, as well as State and federal elections outside the purview of the policy," then "the experience of the past three decades clearly shows that such 'spread effects' are not much in evidence."[36]

Affirmative action has brought in its trail a number of deleterious consequences. In order to receive special benefits, members of scheduled castes have to certify their "harijan" status. Thus instead of eliminating caste as a basis of status and identity in Indian society, "untouchability" may become even more entrenched. Furthermore, a stratum of brokers emerges that traffics in gaining benefits for caste members and especially their own offspring. Chitnis has discovered in her research that harijan youths attending higher education institutions in Maharashtra state come from more advantaged sectors of the scheduled castes, which, as she states, "interferes with the advance of these communities as a whole."[37]

Another cleavage emerges between caste members and poor working-class people who are not certified by the constitution or by the government as belonging to scheduled castes. The basis for unified efforts on the part of all disadvantaged, discriminated against, or exploited peoples to improve their lot is destroyed by antipathy and violence toward one another. These divisive tendencies have been attested to by riots of recent years on the part of other groups who have resented the educational opportunities provided harijans, especially at the higher education level.

In China, different sources of advantage-disadvantage emerge. Some 40 million cadres exercise and enjoy greater power and privileges than the rest of the population. Cadres may be defined as government and party functionaries, anyone who is responsible for overseeing the tasks of others in the economic, political, and cultural spheres. (They may or may not be members of the CCP.)

For purposes of comparison, we can examine cadre access to higher education institutions, as this is the critical level in both societies for securing influential and attractive jobs in government and industry. Between 1977 and 1980, only 4–5 percent of China's annual 5–7 million senior middle school graduates entered a university.[38] Those who enter and

[36] Zachariah, p. 312; see also Suma Chitnis, "Education for Equality: Case of Scheduled Castes in Higher Education," *Economic and Political Weekly* 7 (August 1972): 1675–81, esp. 1679.

[37] Chitnis, "Education of Scheduled Castes and Scheduled Tribes in Maharashtra," p. 235.

[38] With the government's reduction in senior middle schools in 1981, in an attempt to control the problem of an excessive number of students who could not be accommodated at the higher

complete the higher education level constitute a professional and technical elite that past CCP Chairman Hua Guofeng conceded could comprise a "new class."[39] According to the New China News Agency, of the entering class of 2,000 students at Beijing University in 1979, 39 percent came from families of cadres and army officers, although these two groups make up less than 5 percent of the overall population. Another 11 percent of the first-year class were offspring of intellectuals, who constitute perhaps 2.5 percent of the population.[40]

Attempts to eliminate elitist tendencies in higher education access also backfired during the Cultural Revolution. In that period, there was to be a mandatory waiting period of at least 2 years between high school graduation and university attendance. Students would be admitted on the basis not of examination results but of correct political outlook and labor contributions to society. Work units were to nominate those members who best exemplified socialist principles. While many individuals of working-class and peasant background were admitted to the universities, a disproportionate number of party and cadre offspring also gained admission. This happened because, as Glassman points out, children of cadres and officials were those best able to use personal connections, which enabled them to "enter through a back door."[41]

In China, as in India, a two-tier system of education is emerging, one tier catering to the masses—generally the poor rural populations—and a second, more selective system preparing the youth of advantaged backgrounds for elite positions in the economy and party. In India, the elite system is most frequently comprised of private English-medium schools or government of India schools, for the children of civil servants, that feed into prestigious institutions of higher learning (such as the Indian Institutes of Technology [IITs] and the Indian Institutes of Management [IIMs]).[42] Mostly middle- and upper-class children from the families of those with political and economic influence attend these schools. In China, where schools are public,[43] the elite institutions consist of the keypoint schools, which are located in urban areas and serve those who did best

education level, the percentage of senior middle school graduates continuing on to college increased to 9.12 percent. In 1981, only 4,861,000 students graduated at this level, and in 1982, 3,423,600. See Rosen (n. 21 above), table 5.

[39] Hawkins, p. 420.

[40] Butterfield (n. 18 above), p. 199.

[41] Glassman (n. 17 above), p. 148; see also Shirk (n. 29 above), p. 190.

[42] See A. R. Kamat, "Education and Social Change," in Shah, ed. (n. 6 above), p. 260. It should be further noted that India is spending about $600 million a year on its colleges and universities out of a total education budget of $4 billion; with only 3 percent of the student enrollment, the higher education system is receiving 15 percent of the education budget.

[43] In India, approximately 20 percent of primary schools are in the private sector. At the secondary and higher education levels, however, private schools are in the majority. Over 95 percent of all such schools receive some form of public financing, which obligates them to follow national guidelines in matters of curriculum, student, and personnel policies.

on rigorous examinations. Families who are able to tutor their children for these examinations obviously enjoy an advantage in the academic obstacle course, and, not surprisingly, a disproportionate number of these families are comprised of cadres and party officials. Thus inequalities still beset the education systems of India and China despite remarkable expansion of opportunities and affirmative actions designed to remedy past injustices.

Hierarchical, Examination-Oriented Systems Unrelated to Productive Labor and Social Needs

Both Gandhi and Mao Zedong had visions of education systems that were greatly at odds with the elitist, esoteric systems that existed in 1947 and 1949. Indian national leaders inherited a top-heavy education system, in which a knowledge of the English language, British and European history, and Western science was integrally related to civil service sinecures or to white collar positions removed from manual labor. Ancient Brahmanical traditions, from the post-Vedic period (seventh century B.C.), also established education as the preserve of a priestly elite.[44] In China, the mandarin tradition of a ruling class of bureaucratic functionaries, steeped in Chinese classics and distinguished in appearance and manners from the masses, placed a premium on ascetic study (involving intense preparation over a 20-year or more period for rigorous examinations), the content of which bore little relation to the problems of everyday existence. Mao Zedong proposed an education rooted in Marxist-Leninist thought that would overcome the separation between theory and practice, intellectual and manual work, classroom and community. Workers and peasants were to become intellectuals, and vice versa. Gandhi had also articulated a vision of basic education combining academic study, village crafts, and manual skills and conducted in local languages. It was to be an education rooted in and serving village life. Today, as some Indian educators have noted, Gandhi's vision and philosophy of education are honored more in the breach than in the observance. The Gandhian Basic School, which was to become the model form of primary education, never has embraced more than 10 percent of enrollment.

In fact, for both countries, providing a universal basic education of 8–10 years—which would provide the essentials of lifetime learning, specific job-related skills, and the perspectives, attitudes, and competencies to be contributing members of society—is still a distant goal. For the most part, each level of education in the two countries has been a series of preparations for the next step on the educational ladder, with the coveted

[44] S. N. Mukerjee, *Education in India: Today and Tomorrow* (1964), p. 21 (cited in Madan [n. 9 above], 1:299).

goal a university career—the gateway to the highest rewards of power, status, and income.

A critical bottleneck in both education systems has been secondary education (grades 6–11), which traditionally has been overly academic and characterized by passive learning and lack of concern for preparing graduates for the work force.[45] In India, as well as in China, enrollment in vocational courses constitutes only about 10–20 percent of the total enrollment at the secondary stage.[46] Moreover, vocational schools often attempt to emulate their academic counterparts so that, over time, programmatic distinctions blur. Sweeney cites the case of the multipurpose secondary schools recommended by the 1953 Secondary Education Commission of India report. These schools were to be a response to the criticisms that secondary education was too academic, isolated from life, and worked against the improvement of vocational efficiency. The multipurpose schools were to have a "vocational bias" but were not to provide "vocational education." According to Sweeney, the curriculum of these schools generally includes the same subjects as the academic higher secondary schools—which require no more than three vocational courses—so that students aspire to a university education.[47]

Unger and Kwong review the similar fate of reform efforts in China from the late 1950s through the mid-1960s. As summarized by Unger:

> China promoted two separate schemes to move parts of its school system out of the orbit of the country's regular 12-year school track. The first of these Chinese efforts was a rural half-farming/half-study program, and the second was an urban 10-year experimental curriculum. Both were attempted in a major way. But it had become obvious by the eve of the Cultural Revolution in 1966 that neither of these attempted reforms could succeed on its own terms. They were stymied by their need to compete at a comparative disadvantage against the 12-year system. The reasons they failed to compete are complex and, perhaps, tell us something extra about the difficulties of establishing programs at variance with any nation's regular educational ladder.[48]

Kwong explains that one major reason for the failure of the work-study schools was that they "were regarded as mobility 'traps' which destined graduates to a life of toil in the fields or in a factory."[49]

[45] For further discussion, see A. R. Dawood, "Secondary Education," in Shah, ed., p. 208; Margaret Cormack, *She Who Rides a Peacock* (cited in Sweeney [n. 24 above], p. 49); and R. C. Majumdar, H. C. Raychaudhari, and Kalikinkar Datta, *An Advanced History of India* (Delhi: Macmillan, 1981), p. 963.

[46] On India, see Dawood, pp. 208–9; on China, see Thomas Fingar and Linda A. Reed, *An Introduction to Education in the People's Republic of China and U.S.-China Educational Exchanges* (Washington, D.C.: U.S.-China Education Clearinghouse, 1982), p. 10.

[47] Sweeney, p. 47.

[48] Jonathan Unger, "Bending the School Ladder: The Failure of Chinese Educational Reform in the 1960s," *Comparative Education Review* 24, no. 2, pt. 1 (June 1980): 221–37, esp. 222.

[49] Julia Kwong, "The Educational Experiment of the Great Leap Forward, 1958–1959: Its Inherent Contradictions," *Comparative Education Review* 23 (October 1979): 443–55, esp. 452.

During the Cultural Revolution, there were radical attempts to overcome the work-study dichotomy: many schools were closed for extended periods; the curriculum was streamlined; examinations were eliminated; university classes often moved to work sites; teachers were demoted in status while revolutionary committees of often uneducated workers, peasants, soldiers, and cadre members ran schools and dictated subject matter; and 17 million youths were "sent down" to live permanently in the countryside. In the post-Mao period (esp. 1978–), CCP and government officials have criticized these excesses, which are blamed for destroying the careers and lives of many academics and intellectuals, for hindering the development of a whole generation of students who were poorly educated, and for setting back the economic growth and modernization of China. Generally, the period 1966–76 is viewed, educationally, as a "lost decade."

The 1978 National Work Conference on Education set forth the three basic principles of education in the aftermath of the Cultural Revolution, the death of Mao Zedong, and the demise of the Gang of Four: education should serve politics, be combined with productive labor, and be under party direction.[50] While these three principles have been operative since the 1950s in China, the emphasis on an education that instills socialist consciousness through productive labor is tempered by the current government's preoccupation with modernization and especially with catching up technologically, industrially, and militarily with the West. This preoccupation has led, as discussed earlier, to attention being given to the identification and promotion of talented youths in special keypoint schools.

Rosen, who has written extensively on these schools, notes that, "ironically, because of the need to dismantle fully the Cultural Revolution model, make up for lost time, and train qualified students as rapidly as possible, the transitional structure that does exist has been made considerably more elitist than its pre–Cultural Revolution predecessor."[51] Moreover, many of the worst abuses of the academic, elitist model seem to have been exacerbated during the period 1977–82. Extraordinary resources were channeled to the 700 top-ranked keypoint high schools, which also tend to recruit the most competent teachers. In addition, other secondary schools competing with these elite institutions engaged in ability grouping, separating out the most talented students and lavishing special attention on them while neglecting ordinary students. In some cases, mediocre students were discouraged from continuing with their studies, and other students were held back 1 year in order to raise academic standards and improve the university entrance examination results of graduating students. The main criterion for judging the quality of a secondary school, and also for determining its future status and future resource allocations to

[50] Chen (n. 12 above), p. 159.
[51] Rosen (n. 21 above), p. 5.

it, was the number of students gaining access to higher levels of education.[52] The academic content of junior and senior high schools, as Rosen has observed, has been arranged to coordinate with the university entrance examination.[53] Those students unlikely to continue with their studies receive a diluted curriculum that does not adequately prepare them for entry into the work force.

To help remedy this situation (to take pressure off an already overtaxed university system and to prepare graduates more adequately for employment), current reforms call for a decrease in the number of senior middle school students (grades 10–11/12) and an increase in the number of secondary school students who will be studying agricultural and vocational subjects. Educational plans envision approximately one-half of all junior and senior middle school students being enrolled in vocational, agricultural, and special technical schools by 1990, with academic secondary schools being converted to these purposes.

What thus emerges in China, as noted earlier, is a two-track secondary education system with a smaller group of academically superior students (a disproportionate number being the offspring of urban elites)[54] who are groomed for higher education and the assurance of employment in the modern sector of the economy and a larger number of students who are channeled into vocationally oriented curricula. Yet there remains a question whether the graduates of these vocational schools will be able to find employment, for China, like India, is beset by an economy that is unable to provide the majority of its secondary school graduates with productive employment.

Unemployed School Leavers

Both countries face the serious problem of unemployed school leavers. In India this problem is particularly acute among university graduates and in China among junior and senior middle school graduates. The magnitude and severity of the problem might seem strange, given the long history of human resource planning in India and China.

India's first five-year plan began in 1951, China's in 1953. India's national plans, however, are indicative rather than coercive. Moreover, India with its representational form of government is often the captive of strong and competing interest groups. Unquestionably, the proliferation of higher education institutions in the postindependence period is in great

[52] Ibid., esp. pp. 12–13, 16–18; and Stanley Rosen, "Restoring Keypoint Secondary Schools in Post-Mao China: The Politics of Competition and Educational Quality, 1979–83" (paper presented at the Social Science Research Council conference on "Policy Implementation in Post-Mao China," June 20–24, 1983, Ohio State University).

[53] Rosen, "Secondary and Higher Education in the People's Republic of China," p. 21.

[54] See, for example, Shirk (n. 29 above), pp. 199–200; and Butterfield (n. 18 above), p. 199.

part a reflection of the power of regional groups as well as of urban and rural elites to extract resources from the national and state governments in order to maintain and advance their vested interests. The result has been the unbridled expansion of higher education from 225,000 students in 1946 to over 15 times that number in 1983.

Enrollment patterns, however, are not related to employment opportunities. Despite the advocacy of the *Education Commission (1964–65) Report* for "linkages of total enrollment in higher education to the manpower needs of the country" and the need "to bridge the gap between those enrollments and a system of selective admissions,"[55] students continue to pursue those careers they perceive as having the highest social and economic payoffs (e.g., engineering and technical fields and business administration) or as offering the easiest access in terms of admission (e.g., the humanities). Indeed, attempts to impose quotas on admission to certain institutions and facilities are frequently met by well-organized political-group protest and student disruption.

The result is that, in a country where 75 percent of the population is engaged in agriculture-related work, relatively few students pursue higher education specialization in fields of study pertinent to that work. In 1977, for example, only 44,518 out of 5,038,369 "third-level" students were in agriculture, forestry, and fishery studies;[56] and out of 749,454 graduates the previous year, there were only 9,605 in those fields.[57] In a country where there is still a great deficit of certified and well-trained teachers, there were only 175,740 students enrolled in education science and teacher training. By contrast, there were 2,460,593 students enrolled in the humanities, religion, and theology, 747,163 in social and behavioral science, and 345,805 in engineering. Legal studies continued to attract a substantial number of students—159,940. The medical and health-related sciences, however, enrolled only 144,520—reflecting perhaps the gatekeeping power of the medical profession despite the need for more qualified people working in the health field.

Figures for China, in 1979, reveal a substantially different pattern of enrollments.[58] Out of 1,019,950 third-level students for that year, 310,174 were registered in education science and teacher training, 99,268 in social and behavioral science, 353,540 in engineering, 126,633 in medical and health-related sciences, and 74,622 in agriculture, forestry, and fishery studies (nearly 70 percent more than in India).[59] Humanities courses

[55] Cited in Sweeney (n. 24 above), p. 100.

[56] Data on third-level students include intermediate and preuniversity (grades 11–12) course enrollments.

[57] See Unesco, *1982 Statistical Yearbook* (Paris: Unesco, 1983), pp. 111-357, 111-454.

[58] Ibid., p. 111-356.

[59] Still, China's record of training third-level professionals in agricultural sciences compares unfavorably with that of other countries that have modernized rapidly. For every 100,000 rural

enrolled 9,598, and there were only 2,816 law students. In China, admission quotas are set by national authorities in accordance with national human resource plans.

Another factor contributing to unemployment, in the case of India, is the substantial dropout rate of 68 percent at the higher education level. Despite the keen competition to gain admission to higher education institutions, many of the students are poorly qualified to succeed.[60] Compounding the problems of college graduation are the facts that English is still the language of instruction in a number of the more prestigious institutions and schools and that only 10 percent of students receive any form of financial assistance.

Because of the extreme tightness of the job market, dropouts have more difficulty finding employment, but even a majority of graduates are likely to be unemployed or underemployed. This pattern also pertains to students in fields generally considered essential to national development. For example, Kishore Ghandi's study of *Issues and Choices in Higher Education* found high unemployment (nearly a quarter of a million in 1971) among those graduates who had received training in scientific, applied scientific, and technological-engineering fields.[61]

Without a high pass or a degree from a high-status university program, or without political and family connections, it is still difficult to obtain employment that accords with the individual's expectations. Those who graduate from the elite IITs or IIMs may be more attracted to the working conditions and emoluments of professional careers in Western Europe or North America than to those of India. The result is a drain of high-level human resources to other countries. As a case in point, over one-half of the 1981 graduate class of the Madras IIT are working abroad.

China, with its command economy, strict control over higher education expansion and enrollment patterns, and emphasis on combining academic study with productive labor, would appear to be a country without India's problems. But that is not the case. There is an unemployment problem, for which the government has coined the term "waiting for employment." As the 1981–82 United Nations *World Economic Survey* points out, "China has recently been confronted with the prospect of being unable in the short run to absorb a significant share of the entrants into the labor force."[62]

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residents, China has only six majoring in agricultural sciences in universities and colleges, as compared with 290 in Japan and 513 in the Soviet Union. Figures cited in "Modern Agriculture Lies in Popularizing Science," *China Daily* (May 14, 1983), p. 4.

[60] For further discussion, see Mathai (n. 23 above), p. 1366.

[61] Cited in Rafael L. Irizarry, "Overeducation and Unemployment in the Third World: The Paradoxes of Dependent Industrialization," *Comparative Education Review* 24 (October 1980): 338–52, esp. 350.

[62] United Nations, *World Economic Survey, 1981–1982: Current Trends in the World Economy* (New York: United Nations, 1982), pp. 40–44. According to Chen (n. 12 above), p. 198: "The American

It is this inability to absorb new entrants, especially secondary school graduates, into the modern wage economy that probably accounted for the government policy of "rustication." Some China scholars see economic rather than ideological imperatives behind the program that sent over 40 million (perhaps as many as 60 million) youths to live and work in the countryside during the 1950s–1970s.[63] The educational value of this program has been criticized, and rustication has been resisted both by commune members, who often consider the urban youths a burden, and, of course, by the school graduates themselves, who, particularly during the Cultural Revolution (1966–76), were forcibly separated from their families for prolonged periods, placed in alien and harsh conditions, and denied the opportunity for either further study or social advancement.[64] Among the outcomes were scores of youths who attempted to flee to Hong Kong or who exchanged life in the rural area for a vagabond or underground existence in urban areas, sometimes turning to crime. Disillusionment and bitterness were pervasive.

With the abatement of the policies of the Gang of Four, there have been a number of reforms designed to make living conditions more attractive for youths involved in rustication programs[65] and to provide alternative sources of employment in the "private" or self-employed sector of the economy. Still, it is estimated that less than half of the senior middle school students will find employment immediately on graduation.[66]

For those who will not continue on to universities or find employment consonant with their expectations, a variety of nonformal education programs offer the possibility of further study and perhaps improved status. Since the early 1960s there has been, in effect, a two-pronged education system in China.[67] Besides the formal academic ladder there has been a parallel system of nonformal education at the college level consisting of spare-time or night schools and factory-run education programs. More recently, there has been a spate of television colleges—based on the Open University model of the United Kingdom—and correspondence courses enrolling over 500,000 students.[68] By 1985, it is likely that a majority of higher education students will be enrolled in these alternatives.

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journalists in China estimate that at least 10 million urban youth and just as many in the rural areas are without employment."

[63] See Shirk, p. 204; Glassman (n. 17 above), p. 146; Thomas P. Bernstein, *Up to the Mountains and Down to the Villages* (New Haven, Conn.: Yale University Press, 1977).

[64] See accounts in Jonathan Schell, *Watch Out for the Foreign Guests* (New York: Pantheon, 1980); Butterfield (n. 18 above), pp. 182–90; Ross Terrill, *Flowers on an Iron Tree* (Boston: Little, Brown, 1965), pp. 210, 217–20; and Chen, chaps. 6, 7.

[65] Chen, p. 190.

[66] Ibid., pp. 189–90.

[67] Hawkins (n. 31 above), pp. 416–19.

[68] For details, see "Chinese Education," *Encyclopedia of Education* 14 (Winter 1981–82): 58–61; Irwin Epstein, "Educational Television in the People's Republic of China: Some Preliminary Obser-

These institutions undoubtedly serve education purposes: they provide opportunities for upgrading skills in the work force and for job enrichment and mobility; they also more closely reflect socialist notions of combining intellectual and manual work so that everyone can be both a worker and an intellectual. But they also have grown out of the need to placate dissatisfied youth who have found their way barred to the regular university programs and therefore to the more attractive professional and technical careers.[69]

Past experience with nonformal education programs provides little hope that they will serve, over time, to satisfy socially ambitious youth. For example, Epstein, in reviewing the outcomes of earlier attempts to establish television universities with status comparable to that of regular universities, found that enrollments in such programs, as that of Shanghai Television University, rapidly dwindled and that only a small percentage of students graduated, presumably because the expected payoff from these programs was unlikely to materialize.[70] (Other reasons for the high dropout rate include the poor academic preparation of the students and the lack of support from work-unit supervisors, who may consider further training unnecessary or higher education credentials an incentive for their workers to seek more attractive employment elsewhere.)

India, too, has witnessed a proliferation of nonformal education programs since the mid-1970s.[71] Nonformal education programs are attractive to many constituencies. While they are advocated by militant activists inspired by the educational thought of writers like Ivan Illich and Paulo Freire (who are interested in a radical restructuring of society along more egalitarian lines), functionaries of governmental and international technical assistance agencies seek nonformal education as a tool of evolutionary change, designed to provide practical skills and knowledge for people to fit into existing economic and social structures and to make them work more effectively.

Nonformal education programs may be seen as a second chance for disadvantaged youth, preparing them to play productive roles in societies. Critics like Di Bona, however, view such programs as a rationalization for an inferior education for the masses, while elite groups gain the advantages of a formal education system that provides credentials for a limited number

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vations," *Comparative Education Review* 26 (June 1982): 286–91; and Liu Dizhong, "Steps Taken to Improve Education for Millions," *China Daily* (March 26, 1983), p. 1.

[69] For further discussion, see Shirk, p. 204.

[70] Epstein, p. 290.

[71] Philip Coombs, in *Attacking Rural Poverty* (Baltimore: Johns Hopkins University Press, 1974), p. 8, defines nonformal education as systematic instruction that is directed to specific learning needs of specific populations for specified (short) periods. This definition, with variations thereon, appears frequently in the Indian literature on the subject. See, e.g., *Non-Formal Education in Tamilnadu, 1977–1982* (Madras: Directorate of Non-Formal and Adult Education, 1982), p. 5.

of jobs in the modern sector of the economy.[72] Those nonformal education programs aimed at unemployed adults, and particularly at women who are not participating in the cash economy, often have to overcome a number of obstacles and resistance—including the lack of high status of these programs. As the leader of a home and economic improvement for women in Bihar and Madhya Pradesh noted, "The prevailing social esteem for formal school certificates makes working for the Grihini programme an uphill task."[73] A more fundamental problem is that, until the range of occupations open to women changes, there will not be a substantial improvement in the educational status of women or a more direct correlation between schooling and productive labor. Beyond the limitations of discriminatory practices against women, as Volken et al. comment, nonformal education programs are unlikely to improve the status of disadvantaged adults until they can "contend successfully with the social forces that want the masses of the people to remain in a position of submission, deprived of the means of questioning the existing unjust social order."[74]

In conclusion, both China and India face serious problems of finding gainful employment for their secondary school graduates and, especially in India, for postsecondary students. India's unemployment problem, however, is pervasive (regardless of the level of education). Innovative formal and nonformal education programs are unlikely to compete successfully with more traditional academic programs in securing attractive jobs for their students—so long as the opportunity structures and reward systems remain unaltered in the two societies.

Dependence on Foreign Models

China's goal is to become a major industrial power by the year 2000. The People's Republic of China is now concentrating on its four modernizations, at the heart of which is scientific and technological development. Since 1977, China has emphasized the role of education in developing the necessary expertise for rapid modernization. It has tightened up academic requirements at the higher education level and since 1978 has sent over 20,000 students and scholars abroad, by far the largest number of these to the United States. The goal of China is to produce within the next generation a group of scientists, technicians, and professionals second to none.[75]

[72] Joseph E. Di Bona, "The Development of Educational Underdevelopment in India," *Asian Profile* 7 (December 1977): 607–19, esp. 615.

[73] Jessie B. Tellis-Nayak, *Non-Formal Education for Women: The Grihini Training Programme* (New Delhi: Indian Social Institute, 1980), p. 20.

[74] Henry Volken, Ajoy Kumar, and Sara Kaithara, *Learning from the Rural Poor* (New Delhi: Indian Social Institute, 1982).

[75] Chen, p. 159.

India in many respects has already achieved a critical mass of high-level human resources. According to many estimates, India (after the United States and the Soviet Union) has the third largest pool of scientists and technicians in the world. India's scientific community includes Nobel laureates and the graduates of its leading universities, and its technological and management institutes rank among the best anywhere. Indeed, India's problem is its inability to offer attractive employment opportunities to retain its high-level human resources. More than one-half of the country's Ph.D.'s, technicians, and medical personnel migrate to the United States, the United Kingdom, and the oil-rich countries of the Middle East.[76] India is a net exporter of high-level talent to the West. (This, of course, is a striking contradiction, given India's pervasive illiteracy.)

Both countries have yet to fashion education systems that adequately address the most pressing issues of social and economic development. Both countries have yet to shake off inappropriate colonial and neocolonial aspects of their education systems. The Indian education system, particularly at the university level, has been modeled after that of the United Kingdom. (Recent examples of U.S. influence are found in the IITs, IIMs, agriculture universities based on the land grant colleges of the United States, and unitary campus systems such as that of the University of Baroda heavily funded in its initial stages by the Ford Foundation.)[77] The most competitive, bookish, examination-oriented, and elitist aspects of the British colonial model have been perpetuated by Indian educators and social groups who benefit from it.

The Chinese education system, once heavily influenced by American and Japanese educators, came under Soviet hegemony in the period 1949–60, when, in the words of the minister of higher education, "the main objective of higher education in the early years was the implantation of the Soviet system."[78] While there still may be a legacy of Soviet influence in the early specialization that characterizes higher studies, China, since 1978, increasingly has turned to the West as a source of technological knowledge and educational ideas. Chinese policymakers maintain that current efforts to modernize will not lead to dependent relations with the industrialized West but will instead develop and strengthen the Chinese socialist system—making "foreign things serve China."[79] Others, such as Schell, doubt that China can simply borrow Western technology and institutional patterns (such as management techniques and work arrange-

[76] Lecture on Indian scientific and technological developments presented by Chandran Indiresan, director of the Madras IIT, to the Indiana Consortium for International Programs Study Group, July 28, 1982, Stella Maris College, Madras.

[77] Robert F. Arnove, "Foundations and the Transfer of Knowledge: Implications for India," *Social Action* 31 (April–June 1981): 144–73.

[78] *China News Analysis*, no. 223 (April 11, 1958), p. 2 (cited in Chen, p. 39).

[79] See Hawkins (n. 31 above), p. 425.

ments) without importing the cultural norms and behaviors that are inextricably tied up with these technologies.[80]

The Search for Appropriate Models and Lessons to Be Learned

Both countries are mindful of colonial legacies in education and the possible dangers of educational borrowing. The search for appropriate educational models has been a continuous—although not necessarily successful—one in China and India over the past 3 decades.

The history of China since 1949 has been that of pendulum swings between autarchy and uncritical acceptance of foreign influences, between a revolutionary and an academic model of education—between polar extremes. In the case of education, Chen states that what is needed is a synthesis of the two models and a formulation, in the post-Mao era, of a theory of education appropriate to China's present stage of development.[81] To explain further: The revolutionary model has deemphasized systematic formal study, specialization, teacher expertise, rigorous examination of substantive knowledge, and differential rewards for achievement. The academic model has tended to deemphasize the social aims of education in a society striving to be more egalitarian. Chen believes that it may be possible for the Chinese leadership to select positive aspects of both models while avoiding the deleterious consequences of a dogmatic acceptance of one to the exclusion of the other.

In the case of India, the Kothari Commission of 1964–65 articulated a mandate for education and a vision that is still pertinent. It called for "a revolution in education . . . which in turn will set in motion the much-desired social, economic and cultural revolution," and the synthesis it called for involved a striving "to bring science and the value of the spirit together in harmony."[82]

If China may be characterized as a "mobilization regime" that wages all-out drives to achieve compelling national goals (e.g., the elimination of mass starvation and the achievement of liberation from foreign domination), then India may be viewed as a "representational regime" that must accommodate different interest groups through an evolutionary process of compromise and amelioration.[83] While both systems have strengths, they also have manifested serious shortcomings. The mobilizational regime often rests on the coercive use of state power to get people to conform to an elite's (a vanguard's) views of what is "just" and "right"—those who are deviant are often vigorously suppressed. The representational

[80] Schell (n. 64 above), esp. pp. 171–74.
[81] Chen, p. 228.
[82] Kothari Commission (cited in Majumdar et al. [n. 45 above], p. 963).
[83] For further discussion, see David E. Apter, *The Politics of Modernization* (Chicago: University of Chicago Press, 1965).

regime is frequently the captive of competing interests, unable to move forward or to resolve the most fundamental social and economic problems. Greater moderation in the case of China must be matched by greater national will in the case of India.

In examining the educational performances of India and China in their postindependence and postliberation periods, it is apparent that impressive achievements are countered by intractable problems. Both countries still have far to go in overcoming past inequities and in establishing education systems that serve the twin, if not conflicting, goals of economic growth and social justice. The problems of India and China are, essentially, those of all contemporary societies—developing and developed—except that these problems are magnified by the countries' vast populations and more deeply rooted in their quadrimillennial civilizations. In their ancient traditions and continuous cultures, and in their indigenous education institutions and practices, certain strengths may also be found.[84] What Eberstadt has said of China also applies to India: "There are no 'models of development': there are only lessons to be learned, both through success and failure."[85]

[84] For example, the traditional healing systems and holistic approaches to medicine; see also Di Bona, "Indigenous Virtue and Foreign Vice" (n. 5 above).

[85] Eberstadt (n. 4 above), pp. 30–31.

[Footnote]

[5] **Indigenous Virtue and Foreign Vice: Alternative Perspectives on Colonial Education**
Joseph E. Di Bona
Comparative Education Review, Vol. 25, No. 2. (Jun., 1981), pp. 202-215.
Stable URL:
http://links.jstor.org/sici?sici=0010-4086%28198106%2925%3A2%3C202%3AIVAFVA%3E2.0.CO%3B2-I

[29] **Educational Reform and Political Backlash: Recent Changes in Chinese Educational Policy**
Susan L. Shirk
Comparative Education Review, Vol. 23, No. 2. (Jun., 1979), pp. 183-217.
Stable URL:
http://links.jstor.org/sici?sici=0010-4086%28197906%2923%3A2%3C183%3AERAPBR%3E2.0.CO%3B2-2

[30] **Educational Reform and Political Backlash: Recent Changes in Chinese Educational Policy**
Susan L. Shirk
Comparative Education Review, Vol. 23, No. 2. (Jun., 1979), pp. 183-217.
Stable URL:
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[48] **Bending the School Ladder: The Failure of Chinese Educational Reform in the 1960s**
Jonathan Unger
Comparative Education Review, Vol. 24, No. 2, Part 1. (Jun., 1980), pp. 221-237.
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http://links.jstor.org/sici?sici=0010-4086%28198006%2924%3A2%3C221%3ABTSLTF%3E2.0.CO%3B2-I

[49] **The Educational Experiment of the Great Leap Forward, 1958-1959: Its Inherent Contradictions**
Julia Kwong
Comparative Education Review, Vol. 23, No. 3. (Oct., 1979), pp. 443-455.
Stable URL:
http://links.jstor.org/sici?sici=0010-4086%28197910%2923%3A3%3C443%3ATEEOTG%3E2.0.CO%3B2-S

[51] **Educational Reform and Political Backlash: Recent Changes in Chinese Educational Policy**
Susan L. Shirk
Comparative Education Review, Vol. 23, No. 2. (Jun., 1979), pp. 183-217.
Stable URL:
http://links.jstor.org/sici?sici=0010-4086%28197906%2923%3A2%3C183%3AERAPBR%3E2.0.CO%3B2-2

[61] **Overeducation and Unemployment in the Third World: The Paradoxes of Dependent Industrialization**
Rafael L. Irizarry
Comparative Education Review, Vol. 24, No. 3. (Oct., 1980), pp. 338-352.
Stable URL:
http://links.jstor.org/sici?sici=0010-4086%28198010%2924%3A3%3C338%3AOAUITT%3E2.0.CO%3B2-W

[63] **Educational Reform and Political Backlash: Recent Changes in Chinese Educational Policy**
Susan L. Shirk
Comparative Education Review, Vol. 23, No. 2. (Jun., 1979), pp. 183-217.
Stable URL:
http://links.jstor.org/sici?sici=0010-4086%28197906%2923%3A2%3C183%3AERAPBR%3E2.0.CO%3B2-2

[68] **Educational Television in the People's Republic of China: Some Preliminary Observations**
Irving Epstein
Comparative Education Review, Vol. 26, No. 2. (Jun., 1982), pp. 286-291.
Stable URL:
http://links.jstor.org/sici?sici=0010-4086%28198206%2926%3A2%3C286%3AETITPR%3E2.0.CO%3B2-C

LINKED CITATIONS

[69] **Educational Reform and Political Backlash: Recent Changes in Chinese Educational Policy**
Susan L. Shirk
Comparative Education Review, Vol. 23, No. 2. (Jun., 1979), pp. 183-217.
Stable URL:
http://links.jstor.org/sici?sici=0010-4086%28197906%2923%3A2%3C183%3AERAPBR%3E2.0.CO%3B2-2

[70] **Educational Television in the People's Republic of China: Some Preliminary Observations**
Irving Epstein
Comparative Education Review, Vol. 26, No. 2. (Jun., 1982), pp. 286-291.
Stable URL:
http://links.jstor.org/sici?sici=0010-4086%28198206%2926%3A2%3C286%3AETITPR%3E2.0.CO%3B2-C